**Suggestions for vocabulary focused reading lessons for mainstream classrooms addressing
both L1 and L2 learners**

Susanne Seifert^{*1}, Andrea Kulmhofer², Lisa Paleczek¹, Susanne Schwab¹, & Barbara Gasteiger-Klicpera¹

¹ University of Graz, Austria

² Federal Institute for Educational Research, Innovation & Development of the Austrian School System

*Corresponding author: Susanne Seifert

Adress: Department of Education, University of Graz, Merangasse 70/2, 8010 Graz - Austria

susanne.seifert@uni-graz.at

Acknowledgements. The recommendations derive from methods and materials used within the recently evaluated reading program called LARS (Language and Reading Skills for children with German as a first or second language) that was conducted in Austria. We would like to thank the Styrian government (department of education) for financially supporting the current research project. We also gratefully acknowledge the ideas and recommendations of the teachers who worked with us on the project and who always shared their experiences with the methods in their class with us. Furthermore, we would also like to thank Heike Skringer for her creative and precious drawings.

Funding: The project LARS was funded by the Styrian government (department of education) (grant number 120,000 €) which was also responsible for reviewing the research project prior to conducting the study.

Conflict of Interest: The authors declare that they have no conflict of interest.

Abstract

The increasing number of second language learners in classrooms all around the world has required teachers to adapt their teaching methods and materials to the various learners' needs. Particularly second language learners need specific learning strategies, which not only aim at helping them understand the linguistic structure of the language of instruction, but also enable them to remember and comprehend the many different words in this "foreign" language. For second language learners, developing reading skills and improving language abilities need to go hand in hand independent of the language. This article presents suggestions for reading lessons emphasizing vocabulary for both first and second language learners of various linguistic backgrounds. These suggestions are especially useful for reading lessons in mainstream second and third grade classrooms. Approaches to vocabulary building are discussed with particular focus on aspects to be considered for vocabulary selection (e.g. linguistic aspects); followed then by recommendations on the instruction of the selected vocabulary. All the presented suggestions are based on materials developed in the context of a project in Austria hence in a German speaking environment. Applicability of these suggestions for other languages is emphasized.

Keywords: second language learners; teaching methods; literature; vocabulary; reading practices; classroom methodology

Introduction

In many countries a considerable amount of students speaks a first language (L1) that is different from the language of instruction. In the United States, for example, approximately 9% of all children enrolled in public school speak English as a second language (L2) (Kena, Aud, Johnston et al. 2014). According to the National Center for Education Statistics (Snyder and Dillow 2013), especially these children lag behind in reading acquisition compared to their age-matched first language (L1) peers. In particular, text-level skills such as reading comprehension are areas of weakness compared to age-matched children speaking English as their L1 (e.g. August and Shanahan 2006). The situation in Europe is very similar to the one in the United States. According to the PISA survey (OECD 2010), in most European countries, around 10% of 15-year old students speak the language of instruction as an additional language. Thus, the language of instruction is their L2. In Austria, for example, one out of 4 children at the end of fourth grade speaks German (the language of instruction) as L2 (Statistik Austria 2014). These L2 learners run a higher risk of developing reading difficulties than their age-matched L1 German-speaking peers (Schabmann, Landerl, Bruneorth, and Schmidt 2012). This risk increases for children who only learn to read in their L2 (Limbird 2008).

As international research has shown, L2 learners, while frequently not having problems in decoding, often have specific problems in reading comprehension (Melby-Lervåg and Lervåg 2013; Verhoeven and van Leeuwe 2012). Researchers explain this specific comprehension deficit largely in terms of deficits in vocabulary knowledge (Hutchinson, Whiteley, Smith, and Connors 2003; Verhoeven 2011). Vocabulary knowledge has a greater impact on the reading development of L2 learners than on readers who acquire reading competencies in their L1 (Verhoeven 2000). Nation (1995/1996) sees insufficient vocabulary knowledge as one of the major barriers to reading acquisition for L2 learners. The close relationship between vocabulary

knowledge and reading comprehension has repeatedly been highlighted. It is commonly acknowledged that the amount of vocabulary known by the reader has a great impact on reading comprehension (e.g. Baumann 2009; Cain and Oakhill 2011; Hairrell, Rupley, and Simmons 2011; Koda 2005; Quinn, Wagner, Petscher, and Lopez 2015). The more words are unknown to the reader, the higher is the frustration level and therefore the intention to stop reading. Thus, the readers will not catch up with their age-matched peers (Eskey 2005).

In many countries, L2 learners are a growing population at elementary schools. Hence, teachers must consider these students' learning needs during reading instruction. Often, teachers assume a monolingual and monocultural context and thus fail to acknowledge L2 or multicultural aspects in class settings. Gogolin (1994) calls attitudes like this the 'monolingual habitus', referring to the still existing assumption that monolingualism is common in our schools. Such an approach makes successful teaching difficult for both L1 and L2 learners, since 'the language learning disposition of children growing up bilingually is fundamentally different from that of monolingual children, and that is so in practically every imaginable respect' (Gogolin 2013, p. 40).

In reading lessons with L2 children, teachers need to address two distinct needs of L2 learners: their need to learn their L2 while simultaneously learning to read and comprehend academic content (Gersten 1996). Thus, the instruction of L2 learners resembles CLIL instruction (Content and Language Integrated Learning, Coyle, Hood, and March 2010; Cenoz 2015) since another language than the L1 is used for the learning and teaching of content. Reading teachers can support L2 learners in their process of learning to read through vocabulary building. However, vocabulary building represents one of the main pillars reading lessons should be based on — not only for L2 learners, but also for L1 children, particularly when they come

from families of low socioeconomic backgrounds (Rupley, Logan, and Nichols 1998/1999; Cassidy and Cassidy 2005/2006).

This article provides suggestions for vocabulary focused reading lessons appropriate for classrooms with L1 and L2 learners independent of the language of instruction. These suggestions - which can be applied to many different classrooms and languages of instruction - are derived from our recently evaluated reading program called LARS (*Language And Reading Skills*) conducted in Austria with L1 and L2 learners of German. The program was implemented in elementary school classrooms with a rather high proportion of L2 learners (for nearly half of these children (45.9%), German was the L2) coming from various linguistic backgrounds. In these classrooms, more than 20 different first languages were spoken. Within this program, vocabulary building was connected to differentiated reading texts that came in four different ability levels (Seifert, Schwab, and Gasteiger-Klicpera 2014; Seifert, Schwab, and Gasteiger-Klicpera in print). The materials were used in nine second grade classrooms twice a week for a whole school year. Before and after the implementation, reading skills (decoding and reading comprehension) as well as vocabulary and grammar knowledge of all children were assessed. Twelve classrooms with a comparable amount of L2 learners receiving traditional reading instruction served as a control group. Usually, traditional reading lessons in Austria do not tend to emphasize vocabulary building or differentiated reading materials. Basic requirement for taking part in the study, both for the intervention and the control group, was written parental consent asked for prior to the study. Anonymity of the data was guaranteed.

As shown recently (Seifert, Schwab and Gasteiger-Klicpera in press), children participating in the reading program LARS showed higher increases in reading comprehension on sentence level as well as in productive vocabulary knowledge of the trained vocabulary than

children of the control group. Thus, explicitly focusing on vocabulary building during reading lessons proved to be successful.

The most effective way to strengthen vocabulary knowledge is through rich and robust instruction of carefully selected words. According to literature, this involves the implementation of activities for vocabulary building in both pre- and post-reading tasks (Beck, McKeown, and Kucan 2002). The article presents ideas on how to integrate vocabulary building into reading lessons throughout the school year. First, suggestions for the organization of vocabulary instruction are proposed. Second, the article illustrates the different aspects of appropriate word selection for vocabulary building. Finally, it provides recommendations for the instruction of the relevant vocabulary.

The suggestions are based on teaching reading in a language (German) based on an alphabetic system and concentrate on the application in second and third grade when most of the children have already mastered the alphabetic principle and therefore have understood underlying letter-sound correspondences. Teachers, however, should adapt these ideas and suggestions as needed for their own languages, purposes, contexts, and of course, for their students' specific needs.

Organizing Vocabulary Building Around Topics

On the way to becoming confident and successful readers, students all around the world do not only need to master the underlying grapheme-sound principle (decoding on the word level) of the language in question but also need to understand coherent text (reading comprehension). Hence, when choosing a text for reading class, the topic of the text to be discussed is of concern for the teacher. The text is commonly approached through introducing new vocabulary

immediately before students read this text. When several of the texts read in class deal with the same or a similar topic, relevant vocabulary might reoccur which can be used when preparing the reading lessons. We recommend an approach, where topic specific vocabulary of the texts in question is gathered and presented in a separate lesson before the actual reading of the text. This topic-related vocabulary is then reviewed and practiced during the reading lessons that follow this separate vocabulary lesson allowing discussions about a specific topic over a period of several lessons.

The vocabulary introduced should be relevant to the children. During the school year, as teachers follow a certain curriculum, children are confronted with several topics in various subjects. Special vocabulary of relevant terms represents each of these topics. Hence, we recommend dividing the school year into topics according to the curriculum. This could also allow cross-curricular encounters with the vocabulary and topics (Hurrelmann 2004). The topics, for example, could revolve around seasons (e.g. spring, fall) or cultural traditions (e.g. holidays like Christmas). Additionally, they should cover topics of children's everyday life to ensure engagement and personal relevance. Since not only a multilingualistic but also a multicultural setting should be addressed, the choice of the topics needs to not only respect differences in the classroom, but also must offer equal chances for all the children when it comes to interest and expertise. Selecting solely holidays and festivities of one religion (e.g. Christmas) would lead to an unfair imbalance.

The amount of content to be learned should be kept small to support the learning process positively (May 2001). Thus, during the whole school year, we recommend providing approximately ten different topics. This way, there is enough time for reading texts that focus on topic-related content, and for working intensively with the appropriate content vocabulary. Table

1 gives suggestions for ten possible topics that can be used to organize vocabulary during the school year.

[Table 1 near here]

Selecting Appropriate Vocabulary for Each Topic

Once the topics are chosen, appropriate words should be used for vocabulary building. In the following section, different aspects that could be helpful when selecting vocabulary are pointed out. In addition, the words outlined in Table 2 give an example for vocabulary corresponding to the topic “My healthy body”. To demonstrate all aspects that need to be considered when selecting vocabulary, we refer to the following table.

[Table 2 near here]

Number of Words. Before children gain knowledge of the 3,000 to 5,000 most frequent word families, they will not be able to comprehend written texts accurately (Coady 1997). When L1 speakers start school, their vocabulary knowledge is already well established. Above all, high-frequency words, which appear often in everyday life, are already known. However, the situation of second language learners coming to school is quite different. As a result of low L2 language exposure, they often only know some L2 words of daily life. According to Nation (1997; 2011), beginning L2 readers should be especially supported in their learning process through explicit instruction of the most frequent words. Bearing in mind that the presented approach is suggested for work with second and third graders, they probably already know some of these frequently used words. In order for children not to become overwhelmed with new words, however, we recommend choosing about 15 to 20 words by topic.

Topical Relevance. Relevant words that are often needed for everyday life communication are learned more easily than irrelevant ones (Nation 2011). Thus, the vocabulary should be relevant for the particular topic as well as for the children's lives. The words "blood" and "to move," for example, are highly relevant for the topic, "My healthy body." In order to choose topically relevant vocabulary, textbooks, word lists, and readers can be used.

Word Frequency. Once some topic-related vocabulary has been selected, these words must be checked according to their frequency. As mentioned before, and proven correct for different L1 and L2 languages (e.g. Bialystok 1988; Bialystok and Herman 1999; Verhoeven 2000), the average L1 speaker entering school knows many more words than the average L2 learner. This is particularly true for the command of high-frequency everyday words. In order to be able to appropriately and successfully follow the lessons, L2 learners need to learn high-frequency vocabulary in a very short time. Thus, for vocabulary instruction with L2 learners, high-frequency words should be taught (Nation 2011).

In an earlier paper, Nation (2005) already emphasizes the need to use high-frequency words when teaching vocabulary. He postulates that the 100 most frequent words will account for about 50% of the running words in a text and the 1,000 most frequent words even for at least 70% to 80% of the running words in a text. This clearly illustrates that for successful reading comprehension, the most frequent words need to be known to the students. However, as already mentioned above, struggling as well as L2 learners still need explicit teaching of these most frequent words.

According to Schroeder, Würzner, Heister, Geyken, and Kliegl (2014), high-frequency words are words that occur at least 10 to 100 times in one million words. Corpus databases are a helpful tool when looking for high-frequency words. Databases that are based on children's data

or data from children's books, and therefore reflect children's language, are appropriate (e.g. for English language: *The Educator's Word Frequency Guide*; Zeno, Ivens, Millard, and Duvvuri 1995; or the *CPWD – Children's Printed Word Database*; Masterson, Stuart, Dixon, and Lovejoy 2010; for German language: *ChildLex – German Children's Book Corpus*; Schroeder et al. 2014).

Some high-frequency words that were looked up for the topic "My healthy body" are given in Table 2.

Orthographic Regularity. The words used for vocabulary building should be controlled for orthographic regularity (i.e. regular spellings and regular letter-sound patterns). By controlling for orthographic regularity, one can ensure that the words used in vocabulary lessons facilitate the learning process of reading rather than complicating it (Schneider and Evers 2009).

The definition of orthographic regularity differs across languages. In a rather shallow orthography such as German, it is defined differently than in a deep orthography such as English. For English, regularity can be measured in terms of certain spelling rules or spelling patterns since some are more frequent than others. To facilitate the learning of new words, teachers can focus on words following patterns the students are already familiar with or introduce new spelling patterns and take the words that were chosen as a starting point to introduce a new spelling rule. For the words that were taken for the topic "My healthy body", the following rules of regularity would apply: Teachers could talk about the final silent-e rule (the silent e at the end of a word is responsible for the long vowel sound in words such as make, take, stake, bite, hike, stroke etc.); doubling the final consonant or FLOSS rule (double the f, l, or s at the end of a single syllable, single vowel words such as full, stuff, mess; Moats 2000; Henry 2003); r-controlled patterns (the pronunciation of vowels is influenced by the subsequent –r sound in words such as under, similar); or vowel teams (such as in the words feel or eat). If teachers

decide to work with vowel teams such as “ea”, the more frequent patterns (e.g. eat vs. bread) should be introduced first. Such patterns can be found in every language. This can simply be done by looking for reoccurring spelling patterns in the words to be taught.

The students should not get too confused as far as spelling is concerned. Therefore homophones should be avoided (there - their, it’s - its etc.). For words that do not follow any particular rule at all (so-called non-phonetic words; Moats 2000; Henry 2003) teachers can come up with their own category and introduce them as sight words. For the words of the topic “My healthy body”, organization in terms of orthographic regularity as proposed in Table 3 would be possible for the English language and serves as an illustrative example about how categorizations can be done.

[Table 3 near here]

Morphological Complexity. Words are based on morphemes, which are the smallest meaningful units in language. Some words are only based on one morpheme, such as “move” or “nose.” Complexity arises when words contain prefixes and suffixes. The words “moved” or “noses,” for example, contain suffixes that have a grammatical meaning. However, they can hardly be avoided in a language such as English, a morphophonemic system in which graphemes not only represent sounds but also meaning (one grapheme can correspond with a morpheme such as –s: one grapheme carrying the meaning plural if added to a noun; or 3rd person singular present tense if added to a verb; Moats 2000). Also in other languages, such as German, some morphemes represented by only one grapheme can change the meaning of a word (e.g. the morphemes –s or –n: they carry the meaning plural if added to nouns, for instance “Auto – Autos”, “Blume – Blumen”). For vocabulary building, morphological complexity of the introduced words should be kept at a minimum. Hence, mono-morphemic words should be used

for vocabulary building rather than multi-morphemic ones if possible. Moreover, using mono-morphemic words can also minimize word length. This reduces burdens on the short term memory while reading and spelling (Fischer 2009).

As seen in Table 2, many of the proposed words for the topic “My healthy body” are mono-morphemic. Words that contain more than one morpheme form the minority (e.g. “inside”, “illness”).

Further, when checking words for their complexity and regularity, one should be familiar with word origins. For example, the majority of the English vocabulary is of Germanic origin. These are usually short and do not take prefixes and suffixes as much as words of Latin or Greek origin (Nation 2005; Henry 2003; Moats 2000). Latin based words (e.g. disease) are also rather frequent but demand already certain skills in handling affixes. These words should be used and introduced with special care especially in the elementary grades and should be avoided if possible (e.g. introducing the word “ill”, “illness” or “sick” before such a complex and academic word such as “disease”; Henry 2003; Moats 2000; Carlisle and Katz 2005; Nation 2005). An overview of Latin-based words and their Germanic equivalents in the English language can be found in the Academic Word List (Coxhead 2000).

Teaching Vocabulary Step by Step

As far as the methodological and didactic realization of vocabulary instruction is concerned, research has shown consistent results: there seems to be a need to encounter the newly learned words in various contexts (c.f. Bolger, Balass, Landen, and Perfetti 2008). Direct and repeated vocabulary instruction has been demonstrated to contribute to reading gains (Stahl and Fairbanks 1986; Beck, McKeown, and Kucan 2002). The following section shows how to introduce, present, and revise vocabulary. Within these suggestions, this section provides recommendations for useful and supportive materials for vocabulary building.

[Figure 1 near here]

Introducing the Vocabulary. Necessary vocabulary for understanding the reading text should be introduced during pre-reading activities. Although vocabulary building can (and should) be included in the course of every reading lesson, we suggest an explicit vocabulary lesson held to introduce every topic (see Figure 1). During this vocabulary lesson, multiple encounters with the vocabulary should be ensured (Baumann 2009). Teachers should use as many learning channels as possible to guarantee not only comprehension but also durable memory storage of the word (Schneider and Evers 2009). Nation (2005) formulates it more clearly: ‘Target vocabulary should be met in the four strands of learning through meaning focused input, learning through meaning-focused output, learning through deliberate study, and learning through fluency-focused activities’ (Nation 2005, p. 585). For instance, it is important that every word is introduced with its representation in print. By doing so, one can increase the chance that each word is stored as a “sight word” and can be recognized later while reading texts. Therefore, it would make sense to choose words - as before mentioned - according to certain spelling patterns or syllable types. Especially for non-native speakers as well as for struggling learners, explicit presentation of spelling and syllable patterns typical for the language taught are essential to guarantee success in learning to read (Eskey 2005; Schneider and Evers 2009; Birsh 2005).

Accessing word meaning is as essential as making students aware of particularities in spelling. Visual aids such as pictures offer access to meaning. Illustrations for the vocabulary words (Table 2) or topic pictures (Figure 2), for example, can support the introduction of new words. In these topic pictures, many scenes and details related to the topic and to the relevant vocabulary could be outlined and discussed in class. The topic pictures, for instance, could be

designed as hidden object pictures that are particularly useful for the introduction of a new topic to facilitate vocabulary activation. Teachers could provide such a picture and ask students to think about different words related to the topic, find related words (such as nouns, adjectives, and verbs of a specific word), or look for specific details in the picture. Like this, students' personal experiences can be included and motivation for learning can be enhanced.

[Figure 2 near here]

A session where the class works with such a topic picture could include the following didactic and methodological steps:

- (1) The teacher presents the topic picture either via visualizer and smart board or any other device that helps project pictures on a larger screen. Not everything is visible to the students. For instance, when introducing the topic "My healthy body" with the topic picture presented in Figure 2, the teacher has only one room of the hospital uncovered.
- (2) Through asking what the students see and having several students respond, the picture is gradually uncovered. During the process, the teacher needs to pay attention whether all the vocabulary words chosen for the topic have been mentioned by the students. If a word was mentioned, the teacher pins it on the board with the corresponding illustration.
- (3) If not all the vocabulary words were mentioned by the students, the teacher can then introduce them by describing what they mean and by highlighting the corresponding scene in the topic picture.
- (4) As a follow-up activity, the teacher asks open ended questions about the scene. These questions should be related to the students' experiences and world. Questions such as: *Have you ever been to the doctor's / to the hospital? What happened at the doctor's / in the hospital? Have you ever visited a person in the hospital? What was that like? etc.* would be

appropriate as follow up task. Students need to be actively engaged with the topic and this can easily be done through having them share their stories and experiences with this special field of everyday life.

In addition, research suggests making cross-linguistic differences explicit to L2 learners when introducing new words (Schneider and Evers 2009). Therefore, grammatical information (e.g. word formation or gender marking) could be provided for each word. At first glance, this might seem less relevant for the English language than for other languages. But when working with L2 learners whose native language might not share the same linguistic principles, providing grammatical information and talking about cross-linguistic differences would foster metalinguistic competences. Of course, teachers do not have knowledge about all the languages that might be around in their classrooms. However, there are handy manuals, such as Swan and Smith's (2002) "Learner English – A teacher's guide to interference and other problems", which can help teachers at pointing out differences between the students' L1 and the target language.

According to Nation (2011), vocabulary should be taught through direct instruction. Marzano and Pickering (2005) gave suggestions about what the instruction of vocabulary could look like. They split the process of teaching vocabulary into six steps. While steps one through three concentrate on vocabulary introduction, steps four through six primarily focus on shaping and sharpening the understanding of vocabulary (see the next chapter "Revising the vocabulary" for further explanations). In the first step of introducing vocabulary, teachers should provide a description, explanation, or example of the new word to be taught. It is emphasized that when working with L2 learners, non-linguistic representations of the word (e.g. using vocabulary illustrations) are necessary. In the second step, teachers ask the students to restate the description, explanation, or example in their own words. For L2 learners, the activation of their

L1 is recommended. For instance students can be asked to write the words in their L1. A different way to activate their L1 competence is to ask if the students know a different word in their L1 that resembles this L2 word to be learned. A mental image that links both words can help the students remember the new L2 word even though those words have different meanings (e. g. English “brief” vs. German “Brief”, which means “letter” – a mental image of a short letter can help link and remember those two words). This strategy which is widely used in foreign language vocabulary learning is called Keyword Method (Atkinson and Raugh 1975) and known to increase vocabulary knowledge in a variety of different foreign languages (for an overview, see Dolean 2014). In the third step, students are encouraged to construct a picture, symbol, or graphic representing the word or grammatical features of the word (e. g. gender) and thus, link the word with a visual impression that comes to the student’s mind. This widely known technique is called visual imagery and can help students remember words (for an overview of this technique, see Oxford and Crookall 1990). While Marzano and Pickering (2005) suggest a rather teacher centered approach towards vocabulary introduction, we would like to highlight a more student oriented and interactive approach of teaching still keeping the suggested three steps in mind.

Firstly, students should work in pairs or groups. Peer activities are known to increase the motivation to learn and read (Edmunds and Bauserman 2006). Let L1 and L2 students work together. The pairs/groups receive printed words corresponding to the vocabulary of the respective topic. They should then try to read them and help each other in sounding them out. They should brainstorm about the words’ meanings. By helping each other, students should be able to learn the words and construct mental representations about their meanings. However, working in pairs and with peers is something that needs careful training and good preparation in order to work well.

Secondly, pictures representing the words' meanings are provided (e.g. on the board). The pairs/groups of children should try to find the pictures corresponding to their words. Every pair/group should present the matched pairs of written words and pictures one after the other to the whole class. They can even try to give an explanation of each word. The teacher should complete these explanations or correct them. Further descriptions of and examples for the words can be provided as well. In the end, all words should have been presented to and discussed by the whole class, and every student should be familiar with each word.

Thirdly, once every word was matched to the corresponding picture, students should work individually. A helpful tool for this work is a "personal dictionary" that every student gets at the beginning of the school year. This dictionary contains all of the vocabulary the teachers selected for working on the topics (see Figure 3). In the dictionary, the target word entries should be illustrated rather with pictures than with definitions, as for L2 learners the L2 definitions are less helpful (Elgort 2011). Every student has its own dictionary with yet empty lines to write on next to the illustrations representing the meaning of the vocabulary word. In the dictionary, students can write down the words. They practice these words while simultaneously writing them. The dictionary shown in Figure 3 presents the printed words. Then, the children can rewrite these words on the lines. While writing they can cover the pre-printed words with a sheet of paper for spelling practice. In addition, the dictionary presented in Figure 3 contains the opportunity to write whole sentences containing the newly learned word or grammatical aspects. Moreover, L2 learners have the possibility to also write the words in their L1. As already mentioned the activation of the first language will help these students to deepen their knowledge about and understanding of these words (Elgort 2011; Potts and Moran 2013). If children do not know these words in their L1, they could ask their families for help.

[Figure 3 near here, watch out – the Figures 3.1 and 3.2 correspond to Figure 3]

When planning to provide such dictionaries, teachers can easily adapt the pages to their students' needs. If teachers do not want to use personal dictionaries, students can also write the words and possible associations in their notebooks. When working with notebooks instead of personal dictionaries, students can create pictures for each word by themselves. Furthermore, L2 learners could also be encouraged to write the words in their L1.

During this phase of vocabulary instruction it must not be forgotten to have students also work with the words actively. In the elementary grades, this active usage of the words can be triggered by having them play a competitive game in which the students try to build sentences with as many words of the vocabulary words as possible. However, it has to be made sure that the sentence is meaningful and grammatically correct. This has to be monitored by the teacher. Any mistakes or errors need to be touched upon immediately. Especially for L2 learners, it is necessary to discuss problems explicitly and point out why something is not correct. By doing so, this also helps students to gain a better understanding of how the target language works and helps them to collect information about a word they use. This will be of use later, when it comes to reading and reading comprehension (Carlisle and Katz 2005; Eskey 2005; Nation 2005; Schneider and Evers 2009).

Beside the presented, more traditional "paper and pencil" methods, today's technology provides teachers and students with numerous tools that can supplement the teaching and learning of vocabulary. In particular for motivating struggling readers, integrating technology with vocabulary instruction is strongly recommended (Wood, Harmon, Kissel and Hedrick 2011). As research has shown, computer-based or computer-mediated instruction can facilitate vocabulary learning and increase learning motivation (e. g. Chiu 2013). In addition, the use of

mobile devices which provide immediate feedback, are permanently available and allow collaborative activities (Naismith, Lonsdale, Vavoula, and Sharples 2004) can promote vocabulary learning. Thus, teachers should think about complementing vocabulary instruction by using the computer, mobile devices or similar technology. For instance, instead of a printed dictionary or notebook, the thematic words can be collected on flashcards within a program or application on the computer, the smartphone or other electronic device. Such programs and applications can be quite helpful for vocabulary learning as they allow the students to enter the relevant vocabulary words and practice them in various contexts not only in school, but also at home. Furthermore, those technological tools can be used for gathering pictures, explanations and further information about vocabulary words on the Internet. The internet is a good source to find software and programs appropriate for individual classroom and student needs. But whether or not teachers should use technology depends on the students and their ability levels in reading and writing as well as their computer and technological skills and the technological equipment in the classroom.

Revising Vocabulary. Vocabulary instruction should not only be restricted to the moment of introducing a new topic. It should be kept in mind that language learning and in particular vocabulary development is supported when the child has the opportunity to encounter the words to be acquired in various contexts (Carlisle and Katz 2005) in addition to de-contextualized presentation as done so in explicit vocabulary lessons. A simple way to accomplish this is to revisit the initially taught words, immediately before the actual reading period, as well as newly presented vocabulary that might be important for comprehending the text successfully. This can be done by showing the topic picture again or showing the illustrations that might trigger the words and their meaning encourage the students to recall the

images and associations they made with the words for themselves. This can also be done by sorting activities where students work in small groups and have to match the words with their meanings. However, the latter activity demands quite some preparation. The words and illustrations need to be made available for several groups of students. The words can also be handed out to the children. Then the children try to tell a story with the words. Each child thinks about a sentence with his/her word that fits the previous sentence. This activity also supports the students understanding for how texts work and how ideas are connected to each other. Again, this activity should be done as a whole class activity and needs close monitoring and immediate feedback in case of errors by the teacher.

Steps four to six of Marzano's and Pickering's (2005) recommendations for teaching vocabulary intend to shape and sharpen the understanding of vocabulary. In step four, teachers should provide opportunities of active student engagement with the notebooks. In step five, teachers should periodically ask the students to discuss the words with one another. If appropriate, L2 learners should be allowed to also discuss in their L1. In the sixth and last step, teachers are advised to periodically involve students in games that allow them to play with the words. These can be memory games or board games.

According to these recommendations, students should actively engage with the vocabulary through notebook activities, discussions, and games. Although these three recommendations are indispensable, we suggest one more step. Since vocabulary should be taught through various context presentations to foster the learning process (Bolger et al. 2008), the words should be presented in actual texts in the seventh step. Put another way, the vocabulary should be part of the texts chosen for classroom reading (see Figure 1). To offer even more contextual presentations, teachers could further enrich the texts with more topic relevant vocabulary. Even if the texts already contain a large amount of topic-related vocabulary, their occurrence can be increased and varied by inserting some of these words even more often into

the reading texts of a topic. A different way to make sure the texts contain a high amount of the topic related words is for the teacher to write themselves the texts they would like to use in their reading class.

While reading the texts, students could look for the introduced words and underline them. In case they do not remember the meaning of a word, they could ask their classmate, the teacher, or use their dictionary to look up the word. A common strategy to work with vocabulary and texts at the same time is not only having the words underlined but also matching the words with their definitions at the end of the text. Further, a gapped summary of the read text can be provided at the end. The words that need to be filled in are vocabulary words. Clues for the missing vocabulary words must be found in the original version of the text the student read. So the student needs to think about the vocabulary words, needs to re-read if unsure which word is missing and at the same time write the word. Thus, this is another activity that activates several learning channels at the same time. However, for some learners, this task might be rather difficult. An easier version of this activity could be made of single sentences that have one word – usually a vocabulary word – missing. Sometimes just having to complete single sentences is easier than working with coherent text.

For some L2 learners, the texts might contain more difficult words than can be covered by the topic-related vocabulary. In this case, the students could use either bilingual dictionaries or dictionaries that provide an explanation of the word.

Summary

Working in mixed classes with L1 and L2 learners is often challenging. To face these challenges, teachers need tools that support them in adapting reading lessons to the various learners' needs. Integrating vocabulary building and providing rich and robust vocabulary instruction in reading classes is one essential approach to address the learning needs of both L1 and L2 learners. For

teaching reading to L2 learners, vocabulary building is even more important because these students need to increase their L2 vocabulary to keep pace with their native speaking peers. This article outlines suggestions and tools for organizing vocabulary building based on a recently evaluated research project in Austria named LARS (Schwab, Seifert, and Gasteiger-Klicpera 2014; Seifert, Schwab, and Gasteiger-Klicpera in press). The benefits of these suggestions, however, are only attainable when teachers are able to successfully integrate them into their reading lessons based on their understanding of successful teaching methods and classroom management in the specific classes.

Ethical Approval: All procedures performed in studies connected to the research project LARS were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

References:

- Atkinson, R.C., & Raugh, M.R. (1975). An application of the mnemonic keyword method to the acquisition of Russian vocabulary. *Journal of Experimental Psychology: Human Learning and Memory*, 104, 126e-133e.
- August, D., & Shanahan, T. (Eds.). (2006). *Developing literacy in second-language learners: Report of the National Literacy Panel on Language-Minority Children and Youth*. Mahwah, NJ: Lawrence Erlbaum.
- Baumann, J.F. (2009). Vocabulary and reading comprehension: The nexus of meaning. In S.E. Israel & G.G. Duffy (Eds.), *Handbook of research on reading comprehension* (pp. 470-493). New York: Routledge.
- Beck, I.L., McKeown, M.G., & Kucan, L. (2002). *Bringing words to life* (2nd ed.). New York: Guilford.
- Bialystok, E. (1988). Levels of bilingualism and levels of linguistic awareness. *Developmental Psychology*, 24, 560-567.
- Bialystok, E., & Herman, J. (1999). Does bilingualism matter in early literacy? *Bilingualism: Language and Cognition*, 2, 35-44.
- Birsh, J.R. (Ed.) (2005). *Multisensory teaching of basic language skills*. Baltimore: Paul H. Brookes.
- Bolger, D.J., Balass, M., Landen, E., & Perfetti, C.A. (2008). Context variation and definitions in learning the meaning of words. *Discourse Processes*, 45(2), 122-159.

- Cain, K., & Oakhill, J. (2011). Matthew effects in young readers: Reading comprehension and reading experience aid vocabulary development. *Journal of Learning Disabilities, 44*(5), 431-443.
- Carlisle, J.F., & Katz, L.A. (2005). Word learning and vocabulary instruction. In J.R. Birsh (Ed.), *Multisensory teaching of basic language skills* (pp. 345-375). Baltimore: Paul H. Brookes.
- Cassidy, J., & Cassidy, D. (2005/2006). What's hot, what's not for 2006. *Reading Today, 23*(1), 8-9.
- Cenoz, J. (2015). Content-based instruction and content and language integrated learning: the same or different? *Language, Culture and Curriculum, 28*(1), 8-24. doi: 10.1080/07908318.2014.1000922
- Chiu, Y.-H. (2013). Computer-assisted second language vocabulary instruction: A meta-analysis. *British Journal of Educational Technology, 44*(2), E52-E56.
- Coady, J. (1997). The L2 vocabulary acquisition through extensive reading. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition: A rationale for pedagogy* (pp. 225-237). Cambridge, UK: Cambridge University Press.
- Coxhead, A. (2000). A new academic word list. *TESOL Quarterly, 34*(2), 213-238.
- Coyle, D., Hood, P., & Marsh, D. (2010). *Content and language integrated learning*. Cambridge: Cambridge University Press.
- Dolean, D.D. (2014). Using the keyword method in the classroom: Is the interacting imagery necessary? *System, 45*, 17-26.
- Edmunds, K.M., & Bauserman, K.L. (2006). What teachers can learn about reading motivation through conversations with children. *The Reading Teacher, 59*(5), 414-424.
- Elgort, I. (2011). Deliberate learning and vocabulary acquisition in a second language. *Language Learning, 61*(2), 367-413.

- Eskey, D.E. (2005). Reading in a second language. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 563-580). Mahwah, NJ: Lawrence Erlbaum.
- Fischer, U. (2009). Mit Königen den Schatz der Sprache entdecken. [Discover the treasure of language with kings.]. *Die Grundschulzeitschrift*, 225/226, 44-49.
- Gersten, R.M. (1996). The double demands of teaching English language learners. *Educational Leadership*, 53(5), 18-22.
- Gogolin, I. (1994). *Der monolinguale Habitus der multilingualen Schule*. [The monolingual habitus of the multilingual school]. Münster: Waxmann.
- Gogolin, I. (2013). The 'monolingual habitus' as the common feature in teaching in the language of the majority in different countries. *Per Linguam: A Journal of Language Learning*, 13(2), 38-49.
- Hairrell, A., Rupley, W., & Simmons, D. (2011). The state of vocabulary research. *Literacy Research and Instruction*, 50(4), 253-271.
- Henry, M. (2003). *Unlocking literacy*. Baltimore, Md.: Brookes Publishing.
- Hurrelmann, B. (2004). Informelle Sozialisationsinstanz Familie. [Family as a basis for informal socialization]. In N. Groeben, & B. Hurrelmann (Eds.), *Lesesozialisation in der Mediengesellschaft: Ein Forschungsüberblick* [reading socialization in the mediatized society: a review] (pp. 169-202). Weinheim/München: Juventa.
- Hutchinson, J.M., Whiteley, H.E., Smith, C.D., & Connors, L. (2003). The developmental progression of comprehension-related skills in children learning EAL. *Journal of Research in Reading*, 26(1), 19-32.
- Kena, G., Aud, S., Johnson, F., Wang, X., Zhang, J., Rathbun, A., Wilkinson-Flicker, S., & Kristapovich, P. (2014). *The condition of education 2014* (NCES 2014-083). U.S. Department of Education, National Center for Education Statistics. Washington, DC. Retrieved October 28, 2015 from <http://nces.ed.gov/pubsearch>

- Koda, K. (2005). *Insights into second language reading: A cross-linguistic approach*. New York, NY: Cambridge University Press.
- Limbird, C. (2008). *Phonological processing, verbal abilities, and second language literacy development among bilingual Turkish children in Germany*. PhD diss., Humboldt University of Berlin. Retrieved October 28, 2015 from http://www.diss.fu-berlin.de/diss/receive/FUDISS_thesis_000000003254
- Marzano, R.J., & Pickering, D.J. (2005). *Building academic vocabulary teacher's manual*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Masterson, J., Stuart, M., Dixon, M. & Lovejoy, S. (2010). Children's printed word database: Continuities and changes over time in children's early reading vocabulary. *British Journal of Psychology*, 101(2), 221-242.
- May, P. (2001). *Lernförderlicher Unterricht* [Teaching instruction supporting learning]. Frankfurt/Main: Peter Lang.
- Melby-Lervåg, M., & Lervåg, A. (2013). Reading comprehension and its underlying components in second language learners: A meta-analysis of studies comparing first and second language learners. *Psychological Bulletin*, 140(2), 409-433.
- Moats, L.C. (2000). *Speech to print: Language essentials for teachers*. Baltimore: Paul H. Brooks.
- Naismith, L., Lonsdale, P., Vavoula, G., & Sharples, M. (2005). *Literature review in mobile technologies and learning (Report 11)*. Retrieved October 28, 2015 from http://www.futurelab.org.uk/sites/default/files/Mobile_Technologies_and_Learning_review.pdf
- Nation, I.S.P. (1995/1996). Best practice in vocabulary teaching and learning. *EA Journal*, 3(2), 7-15.

- Nation, I.S.P. (1997). The language learning benefits of extensive reading. *The Language Teacher*, 21(5), 13-16.
- Nation, I.S.P. (2005). Teaching and learning vocabulary. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 581-595). Mahwah, NJ: Lawrence Erlbaum.
- Nation, I.S.P. (2011). Vocabulary research into practice. *Language Teaching*, 44(4), 529-539.
- OECD (Organisation for Economic Co-operation and Development). (2010). *PISA 2009 results: What students know and can do – Student performance in reading, mathematics and science*. Retrieved October 28, 2015 from <http://dx.doi.org/10.1787/9789264091450-en>
- Oxford, R., & Crookall, D. (1990). Vocabulary learning: A critical analysis of techniques. *TESL Canada Journal*, 7(2), 9-30.
- Potts, D., & Moran, M.J. (2013). Mediating multilingual children's language resources. *Language and Education*, 27(5), 451-468.
- Quinn, J.M., Wagner, R.K. , Petscher, Y., & Lopez, D. (2015). Developmental relations between vocabulary knowledge and reading comprehension: A latent change score modeling study. *Child Development*, 86(1), 159-175. doi: 10.1111/cdev.12292
- Rupley, W.H., Logan, J.W., & Nichols, W.D. (1998/1999). Vocabulary instruction in a balanced reading program. *The Reading Teacher*, 52(4), 336-346.
- Schabmann, A., Landerl, K., Bruneforth, M., & Schmidt, B.M. (2012). Lesekompetenz, Leseunterricht und Leseförderung im österreichischen Schulsystem: Analysen zur pädagogischen Förderung der Lesekompetenz. [Reading competence, instruction and promotion of reading in the Austrian school system: analyses in terms of the pedagogical promotion of reading]. In B. Herzog-Punzenberger (Ed.), *Nationaler Bildungsbericht Österreich Band 2: Fokussierte Analysen bildungspolitischer Schwerpunktthemen* [National

educational report volume 2: focused analyses of education-political key topics] (pp. 17-69).

Graz: Leykam.

Schneider, E., & Evers, T. (2009). Linguistic intervention techniques for at-risk English

language learners. *Foreign Language Annals*, 42(1), 55-71.

Schroeder, S., Würzner, K.-M., Heister, J., Geyken, A., & Kliegl, R. (2014). *childLex: A lexical*

database for German read by children. Manuscript submitted for publication. Max Planck

Institute for Human Development, Berlin.

Schwab, S., Seifert, S., & Gasteiger-Klicpera, B. (2014). Improving reading in children with

German as a first or second language. *Journal of Early Years Education*. doi:

10.1080/09669760.2014.909308

Seifert, S., Schwab, S., & Gasteiger-Klicpera, B. (in press). Effects of a whole-class reading

program designed for different reading levels and the learning needs of L1 and L2 children.

Reading and Writing Quarterly.

Seifert, S., Schwab, S., & Gasteiger-Klicpera, B. (2014). Ein Konzept für differenzierten

Leseunterricht in heterogenen Klassen. [Concept of a differentiated reading programme

within heterogeneous classes]. *Sprache Stimme Gehör*, 38, e21-e27.

Smith, C.B. (1997). *Vocabulary instruction and reading comprehension*. ERIC Digest. ERIC

Clearinghouse on Reading English and Communication.

Snyder, T.D., & Dillow, S.A. (2013). Digest of education statistics 2012 (NCES 2014-015).

Washington, DC: U.S. Department of Education, Institute of Education Sciences, National

Center for Education Statistics.

Stahl, S.A., & Fairbanks, M.M. (1986). The effects of vocabulary instruction: A model-based

meta-analysis. *Review of Educational Research*, 56(1), 72-110.

- Statistik Austria. (2014). *Bildung in Zahlen 2012/2013: Tabellenband* [Figures about education: list of tables]. Retrieved October 28, 2015 from http://www.statistik.at/web_de/services/publikationen/5/index.html
- Swan, M., & Smith, B. (2002). *Learner English: A teacher's guide to interference and other problems*. Cambridge: Cambridge University Press.
- Verhoeven, L. (2000). Components in early second language reading and spelling. *Scientific Studies of Reading*, 4(4), 313-330.
- Verhoeven, L. (2011). Second language reading acquisition. In M.L. Kamil, P.D. Pearson, E.B. Moje, & P.P. Afflerbach (Eds.), *Handbook of reading research* (pp. 661-683). New York: Routledge.
- Verhoeven, L., & Leeuwe, J. Van (2012). The simple view of second language reading throughout the primary grades. *Reading and Writing*, 25(8), 1805-1818.
- Wood, K., Harmon, J., Kissel, B., & Hedrick, W. (2011). Vocabulary instruction: Recommendations for struggling readers. In R. McCormack & J. Paratore (Eds.), *After early intervention, then what? Teaching struggling readers in grades 3 and beyond*. Newark, DE: IRA.
- Zeno, S.M., Ivens, S.H., Millard, R.T., & Duvvuri, R. (1995). *The educator's word frequency guide*. Brewster: Touchstone Applied Science Associates, Inc.

Tables:

Table 1. Possible topics for the organization of vocabulary around the school year.

One world – many different people: multiculturalism

One year – four seasons: the seasons of the year

Let's celebrate!: festivities and celebrations

The sun is shining: the weather

My healthy body: the structure of the body, fitness, and healthy food

Once upon a time...: stories and fairy-tales

Wildlife: plants and animals

The world around us: How to protect the environment?

When I grow up, I want to be...: different jobs

No school today: spare time and vacations

Table 2. Suggestions for vocabulary relevant for the topic “My healthy body”.

nouns	verbs	adjectives	prepositions
nose	to move	small	between
blood	to feel	tall	under
bone	to eat	hungry	inside
illness	to grow	similar	above

Table 3. Possible organization of the vocabulary relevant for the topic “My healthy body” in terms of orthographic rules and spelling patterns.

final	vowel team	vowel team	FLOSS rule	r-controlled	teach as
silent -e	patterns:	pattern:	(final	pattern at	sight words
pattern	group 1	group 2	consonants	the end of	because of
	same vowels	different	are doubled)	the word or	schwaed
		vowels		syllable	sounds
		(rule: the first			
		vowel does			
		the talking)			
nose	to feel	to eat	small	under	hungry
to move	blood	to grow	tall	similar	above
bone	between		illness		
inside					

Figures:

Figure 1 Suggestions of teaching vocabulary step by step

Figure 2 Topic picture for the topic “My healthy body”

Figure 3 Front page of the “Personal Dictionary” and sample pages of the “Personal Dictionary” for the topic “My healthy body”