Dictionaries and Learning Slovene

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Abstract

This paper discusses which Slovenian dictionary or dictionaries would be the most suitable for native and non-native Slovenian speakers to use. Slovenian studies are presented that focus on dictionary use and the comprehensibility of dictionary information among Slovenian primary and secondary school students, as well as non-native Slovenian speakers. A brief overview is also presented of relevant findings from dictionary use studies conducted abroad. After this overview of the needs, abilities and preferences of dictionary users who are learning a language, the paper concludes with some suggestions for Slovenian dictionary makers.

Keywords: dictionary use, school dictionary, learner's dictionary, vocabulary acquisition, language learning

1   INTRODUCTION

Dictionaries are essential language resources, indispensable to both foreign language learning as well as native language acquisition. Dictionary use has a positive impact on the learning and retention of new words, and facilitates the improvement of knowledge with regard to the semantic characteristics and usage of words (Paynter et al. 2005: 35–37, 41–45). Moreover, the rich vocabulary that dictionary users can acquire is an extremely important part of individual's communication skills. In the context of education it is important to stress that dictionaries play an important role in student performance, as they can be used as an aid in understanding new material, and consequently contribute to better reading literacy (Paynter et al. 2005: 3–7; Pečjak 2012: 31). However, experts warn that the use of a dictionary which does not consider the development and language proficiency levels of children and other learners, as well as their specific needs, can have negative impacts (e.g. Wright 1998: 7).

In Slovenia there are no dictionaries targeted at non-native or young native speakers of Slovene. Similarly, there is also limited research literature that focuses on these topics. As a result, teachers of Slovene (as L1 or as L2) often use a general monolingual dictionary, i.e. the *Dictionary of Slovene Literary Language* (DSLL),[1] despite the dictionary targeting adult native speakers of the language. According to research (see Section 2), only a small proportion of teachers in primary and secondary schools are aware of the problematic nature of using such a dictionary in teaching, with most thinking that DSLL is totally appropriate for use with students of all levels. This is partly the consequence of a lack of dictionary choice, and predominant and symbolic role of this general monolingual dictionary, which is regarded as a fundamental language resource (as it claims to contain all the important information on Slovene words; see Stabej 2009; Rozman 2009). Another contributing factor is a lack of research focused on dictionary use in relation to language teaching, language acquisition and vocabulary retention.

This situation has slightly improved in the last decade, as a few studies into dictionary use in education have been conducted. The findings of such works are very important for the planning of dictionaries for young native and non-native speakers, taking into account the fact that dictionaries should always consider the needs and abilities of target users, as well as their dictionary habits (i.e. how they consult dictionaries). When planning dictionaries for young native speakers or older learners of Slovene, it is thus important to know which information they are more likely to need or consult (and will be more relevant to them), and how such information should be presented. To some extent, we

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1   This is discussed in more detail in Section 2.

can draw on existing research on and experience in the compilation of school or learner dictionaries of other languages (see Section 3). However, this knowledge is not directly transferable to the Slovenian situation or language, mainly due to differences in how this society perceives dictionaries, standardisation and language teaching, as well as the particularities of its didactic methodology and education system.

The first part of this paper presents an overview of dictionary use research in Slovenia (Section 2), and then presents a review of the relevant international research studies (Section 3). In Section 4, we discuss concrete solutions based on existing research and our knowledge of the field, and also considering the characteristics of language development.

2 DICTIONARY USE RESEARCH IN SLOVENIA

Several studies have been conducted into the understandability of dictionary information among pupils and students in Slovenia, as well as dictionary use in Slovene language teaching, and language problems. This section provides an overview of the key results relevant for the planning of the dictionaries for non-native and young native speakers of Slovene.

2.1

The first large-scale survey was conducted in 2008 (Stabej et al. 2008). The survey included 409 teachers of Slovene and 3,427 students at different levels of education, from 4th grade of primary school up to 4th year of secondary school. The survey was two-fold: the first part was focused on the use of and opinions about monolingual dictionaries, and the second part aimed at detecting problems in language acquisition.

The responses revealed that the teachers used dictionaries quite frequently when preparing different types of teaching materials; mainly for teaching vocabulary, but also for teaching grammar, literary and technical texts, and when preparing and correcting homework and tests. DSLL was the most frequently used dictionary, with 96.8% of teachers reporting occasional use of DSLL in class. DSLL was also consulted when learning different syllabus contents (Table 1), even when using a dictionary was not envisaged by the syllabus or textbook. In addition, the teachers often prepared exercises on learning how to use DSLL.

Table 1: Percentages of teachers using DSLL in different teaching activities

Activity or topic	%
literary text	68.5
lexis and phraseology	65.3
technical text	56.2
orthography	52.8
group correction of tests and homework	39.4
proper pronunciation	37.9
grammar	32.3
text linguistics and communication	24.2
Other	2.4

The majority of the teachers reported encouraging students to make independent use of dictionaries in various activities (Table 2), especially those related to encoding, and occasionally directing students to the dictionary when encountering an unknown word.

Table 2: Percentages of teachers that encouraged the use of dictionaries[2] during different activities

Activity	%
writing	71.6
searching for synonyms and antonyms	62.3
preparing an oral report	61.1
text correction	56.0
searching for Slovene equivalents of foreign words	55.5
searching for unmarked equivalents	54.0
language exercises	37.2
reading	27.6
other	4.9

The teachers agreed that it is useful for students to learn how to use monolingual dictionaries, because this skill improves their communication skills, helps them with using language correctly, facilitates language acquisition and helps expanding their vocabularies. Overall, the teachers had good opinion of DSLL, giving the following reasons:

- they stated that it is useful for solving various language problems (especially those related to word meanings, spelling and pronunciation, slightly less with those related to stylistics, terminology, pragmatics and grammar),

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2   The question asked about the use of DSLL, the dictionary part of Slovene Orthography, and dictionaries of foreign words.

- they agreed that it is normative,

- they believed that it is easy to understand and use,

- the majority (73.3%) considered it suitable for students.

Similarly, the students surveyed also thought highly of dictionaries:

- they stated that they help by providing the correct language use and thus solving language problems,

- they see dictionaries as normative reference works,

- they did not consider dictionary definitions to be too demanding, but agreed that the often difficult-to-understand abbreviations and symbols make dictionaries more difficult to use than necessary.

However, despite their positive attitudes towards dictionaries, a majority of the students did not like to use them (only 37% of primary school students and 30.3% of secondary school students agreed with the statement *Rad/a uporabljam slovarje*; 'I like using dictionaries') or simply did not use them at all (for example, DSLL is used by only 24.5% of primary school students and 16.5% of secondary school students). On the subject of independent dictionary use, the students reported using them mainly when doing dictionary-related exercises. When it came to solving language problems, the students mainly reported consulting dictionaries about the meaning and spelling of words. In both cases, the percentage of students using dictionaries was rather low. Similarly, using a dictionary proved to be one of the least favoured strategies when solving problems related to lexis, as the students preferred to ask a teacher or a friend, not complete the exercise, or search for the answer on the Internet.

Also interesting in this earlier study are the teachers' answers with regard to the types of language errors they most often find in their students' writing or speaking. By far the most frequent are spelling or pronunciation errors, followed by grammar and style errors, while less commonly observed are errors related to semantics, collocations, syntax and phraseology.

2.2

A similar survey, but much smaller in size, was conducted in 2013 (Čebulj 2013). The subjects were 75 primary school teachers (up to 5th grade). Most of the teachers (even those in 1st grade) reported using DSLL in class and teaching their pupils how to use it, and also using dictionaries as one of the strategies for explaining the

meaning of words.[3] The teachers did report that they often observe pupils having difficulties in using DSLL (especially problems with the order of the alphabet when looking up words), and a majority of them agreed that there is a need for a school dictionary.

2.3

As part of the Communication in Slovene project (SSJ),[4] a major survey on Slovene language teaching was conducted in 2010 (Rozman et al. 2010; Rozman et al. 2012). The respondents were 276 teachers of Slovene as L1 and 1,465 students (attending the last three grades of primary school or attending secondary school). Despite not including many questions related to dictionaries and language acquisition, this work does provide some highly relevant findings.

The teachers stated that they saw the acquisition of vocabulary during education as very important, so ideally they would dedicate more time to activities promoting this. In contrast, they would dedicate less time to reference works and how they are used, although they still considered these activities to be fairly important. Similarly, the students believed that a large vocabulary is the most important part of obtaining good communication skills,[5] and considered knowing about dictionaries and how to use them as less important, even less important than knowing how to use the internet. Consistent with this view were students' answers on the use of different language resources and information and communications technology (ICT): they reported using electronic resources, especially web browsers, much more frequently than dictionaries (especially paper dictionaries) when it came to solving language problems. These findings are also consistent with the results of Stabej et al. (2008), presented in section 2.1. On the other hand, the teachers, and especially the older ones, rarely used online dictionaries and ICT in class, although in principle they supported the use of these resources.

2.4

Also conducted during the SSJ project was a survey on the understandability of grammatical (morphosyntactic) information in DSLL (Rozman et al. 2010). The

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3   The teachers using the dictionary as a source of information on the meaning of words, or, less frequently, pupils using the dictionary independently.

4   http://www.slovenscina.eu/

5   The question was: Which of the skills presented below is in your opinion important for speaking, writing and reading Slovene literary language? Eight answers were provided, and the respondents had to evaluate each of them on a scale of 1 to 6.

survey included 389 students attending 8th and 9th grades of primary school and 2nd and 3rd years of secondary school. The findings showed that newly compiled entries in which the grammar information was as explicit as possible were more understandable than DSLL entries,[6] which provide the same information in the form of abbreviations, or when the information in the entries is condensed immediately after the headword. The most useful factors with regard to improving understanding were those entry components that contained more explicit grammar information and were most relevant for the questions in the test used in the survey; the position of the information in the entry was not relevant. The examples of such information included non-abbreviated labels, specially highlighted explanations and dictionary examples.

2.5

Conducted between 2007 and 2009 as part of a PhD thesis, Rozman (2010) is a detailed analysis of syllabi and textbooks for Slovene for the last six grades of primary school and all years of secondary school. The analysis focused on the level of dictionary-related content in Slovene language teaching. It also included a survey on the understandability of dictionary definitions, conducted with about 607 students from three age groups: 5th and 6th grades of primary school, 8th and 9th grades of primary school, and 2nd and 3rd years of secondary school.

The ability to use a dictionary is one of the objectives of the Slovene syllabus that should be achieved at the end of primary school. Dictionaries are part of the syllabus from 7th grade onwards, although exercises involving dictionary use (especially the use of DSLL) are also found at earlier levels. The analysis in this study pointed out several problems in introducing dictionaries into the teaching process, most of which stem from the fact that due to its outdatedness, size, internal structure and less explicit nature of the information it contains, DSLL is often too demanding to allow the kind of consultation envisaged in such exercises.

The survey focused on comparing the understandability of DSLL definitions and of those written especially for the survey. These newly written definitions targeted maximum understandability and took into account the principles of explicitness and straight-forwardness, and avoided using abstract or specialised vocabulary, complex syntax and highly polysemous words. The testing confirmed the hypothesis that DSLL definitions are less understandable, especially to younger students, due to their abstract nature and overly demanding definition vocabulary. The survey also pointed to several features of definitions that affect their

6   Especially to students in primary schools.

understandability, most of them being linked to their abstract nature, structure, length and type, or to the structure of dictionary entries.

2.6

In 2010, a freely available corpus of student texts called Šolar[7] was built, containing authentic texts written by primary and secondary school students, which makes it a good source of information on their writing skills. An exhaustive analysis of the corpus (Kosem et al. 2012a) has been conducted for the purposes of the Pedagogic grammar portal,[8] although this analysis is only partly relevant for dictionary planning, as language errors[9] were categorised according to language problems (e.g. spelling, syntax) rather than at the level of individual words. The latter approach was used by Arhar Holdt and Rozman (2015), who focused on extracting information that could be used in the preparation of a school dictionary or vocabulary-related teaching materials. Their research was conducted on only part of the Šolar corpus, but still confirmed that such information would be useful for dictionary treatment of both content and function words. Among the identified features that would be particularly useful for dictionary users are linking dictionary and grammar information, putting a heavier stress on the collocational, stylistic and syntagmatic characteristics of words, offering the option to compare words with similar forms but different meanings, and pointing out similarities and differences between words with similar meaning but different collocational, stylistic or other characteristics.

2.7

All the studies mentioned above focused on students and teachers in Slovenian primary and secondary schools, and there is almost no research literature on Slovene as a second or foreign language. One exception is Rozman (2003), consisting of an analysis of English advanced learners' dictionaries and a short survey among 64 participants and 18 teachers of Slovene L2 language courses, conducted in the summer of 2003 by the Centre for Slovene as a second and foreign language (CSDTJ).[10] The results confirmed the need for a monolingual dictionary for non-native speakers of Slovene, and based on this, concrete suggestions on certain aspects of dictionary content were prepared. A similar survey, but on a

7   http://www.slovenscina.eu/korpusi/solar
8   http://www.slovenscina.eu/portali/pedagoski-slovnicni-portal
9   Only instances of language use corrected by teachers counted as errors.
10 http://centerslo.si/

smaller scale, was conducted by CSDTJ in May 2015; the survey contained ten questions and was completed by 15 teachers of Slovene as L2.

The main findings of both surveys can be summarised as follows:

- The vast majority of language learners use dictionaries,

- they mainly use bilingual dictionaries, with a combination of Slovene and their mother tongue,

- DSLL is the only monolingual dictionary they consult,

- DSLL is used by more advanced learners, speakers of other Slavic languages and linguists,

- dictionaries are used in different activities, most often when writing, translating and reading,

- the majority of learners would use a monolingual dictionary for non-native speakers, if available.

- many language teachers use monolingual dictionaries of Slovene in class, and during different activities, especially in translation exercises and those related to lexis (searching for meanings, examples, phrases, synonyms, word families etc.),

- the majority of teachers think that a monolingual dictionary for non-native speakers is needed,

- a monolingual dictionary could be used earlier in language learning (according to teachers, a monolingual dictionary for non-native speakers could be used at lower levels, e.g. A2–B1, whereas a general monolingual dictionary, such as DSLL, could be used at B2 level of Common European Framework of Reference for Languages),[11]

- such a dictionary for non-native speakers would be more suitable for different class activities, including writing and reading,

- many teachers believe that such a dictionary should above all contain simple definitions and many examples, and should be available in electronic format,

- teachers think that learners mainly need information on meaning, usage and grammar,

- the most frequent errors of language learners observed by the teachers are related to syntax and collocations.

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11 The Common European Framework of Reference for Languages: Learning, Teaching, Assessment (2001). Cambridge: Cambridge University Press. 15 July 2014. http://www.coe.int/t/dg4/linguistic/cadre1_en.asp. CEFRL describes language competencies at six levels, with A2 being the second level, and B1 the third level.

3   DICTIONARY USER RESEARCH OUTSIDE SLOVENIA

An overview of research on dictionary use around the world reveals a situation that is the exact opposite of that in Slovenia, as the research is dominated by studies of languages learners, while few examine dictionary use of native speakers. In addition, the subjects of a majority of the studies are students, mainly of foreign languages or translation, or else linguists or language teachers.

Technological progress has prompted a shift in research focus to examining the differences between the use of different dictionary media. As early as the 1990s, Leffa (1993) compared the use of electronic and paper dictionaries among primary school students, and found that they translated the focal texts better and faster when using an electronic dictionary. In addition, 80% of students preferred using electronic dictionaries. A similar preference was shown by L2 students of Spanish in Aust et al. (1993), which, among other things, pointed out that one of the advantages of electronic dictionaries over paper ones is the number of look ups that can be conducted within a given timeframe. Similar conclusions have been reached by Nesi (2000), Corris et al. (2000), Tono (2000), Laufer (2000), Winkler (2001), Laufer and Levitzky-Aviad (2006), Petrylaite et al. (2008) and Dziemianko (2010). Some of these studies have provided other interesting findings. For example, in her study with students of English as L2, Laufer (2000) found that the results of a test on understanding unknown words improved significantly when the students were presented with a combination of translations, definitions and examples. In her study, Winkler (2001) found that the skills needed for using an electronic or paper dictionary are sometimes very different, and that the difficulties that arise when using both also differ. Also relevant in the context of the current study are the findings by Chen (2010) on the use of pocket paper and electronic dictionaries.[12] The results showed that the subjects (85 Chinese learners of English) used pocket electronic dictionaries much more frequently than paper ones. However, there were differences identified in terms of dictionary use for specific activities, and these were linked to the amount of information that could be shown at one time on a page or a computer screen. More specifically, the subjects preferred using electronic dictionaries for reading, and paper dictionaries for translating and writing.

Many studies into dictionary use focus on identifying the types of entry information most often consulted by users. The most frequently consulted types of information are definitions and spelling (Béjoint 1981; Jackson 1988; Battenburg 1989; Harvey and Yuill 1997; Hartmann 1999; Kosem 2010; Verlinde and

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12 Pocket dictionaries are usually small, portable dictionaries (a relatively small number of entries number of entries, containing short and simplified information on headwords).

Binon 2010; Lorentzen and Theilgaard 2012), with synonyms also being consulted quite frequently. Non-native speakers also frequently consult grammatical information, collocations, examples and idioms or phrases (Béjoint 1981; Harvey and Yuill 1997). Other types of information, e.g. etymology and pronunciation, are rarely consulted (Hartmann 1999; Kosem 2010). Especially worth mentioning is a study by Kosem (2010), conducted among 444 native speakers and 169 non-native speakers studying at Aston University. The results, presented in Table 3, show that the non-native speakers consulted nearly all types of information (spelling being the only exception) more often than the native speakers did. It should be noted, however, that certain types of information, such as examples and collocations, receive much more detailed treatment in dictionaries for non-native speakers.

Table 3: Use of different entry components by native speakers and non-native speakers (1 – almost never, 2 – rarely, 3 – often, 4 – almost always; from Kosem 2010: 162)

	Native speakers (average)	Non-native speakers (average)
definition	3.44	3.56
spelling	2.82	2.73
synonyms	2.63	2.91
examples	2.45	2.92
usage and grammar	1.72	2.16
phraseology	1.66	2.27
collocations	1.49	2.15
pronunciation	1.60	2.10

There are also several studies on the words looked up by dictionary users. For example, Béjoint (1981) found that 66% of students (non-native speakers) never looked up frequent words, and similar findings were later reported by Hatherall (1984), Bogaards (1998) and Nesi and Haill (2002). These findings were not confirmed by Verlinde in Binon (2010), who analysed 55,752 searches in Base lexical du français (BLF) and found that the users looked up frequent words quite often. Similar conclusions were reached by de Schryver et al. (2006), who analysed nearly half a million searches in a Swahili-English dictionary and found a certain correlation between the corpus frequency of the words and the frequency with which they were looked up. However, as this correlation was identified for only the top few thousand words on the frequency list, the authors argued that it is impossible to predict which words will be of interest to dictionary users. Trap-Jensen et al. (2014), analysing the log files of searches in the online version of the

Danish dictionary (Der Danske Ordbog),[13] found that function words and words with high corpus frequency were among the most frequently looked up (60% out of 1000 most frequently looked up words were found among the 10,000 most frequent words in the corpus).

Research also points to a few dictionary use strategies that often determine whether the search for or interpretation of dictionary information will be successful. One frequently mentioned strategy is that of 'choose the first definition', reported by Mitchell (1983), Tono (1984), Neubach and Cohen (1988), McCreary (2002), Nesi and Haill (2002) and Kosem (2010). A similar strategy in the use of pocket electronic dictionaries has been observed by Boonmoh (2012), with the students in the study consulting only the part of the entry visible on the screen. This means that it is important to order senses with the target users' needs in mind, and use different strategies of presenting information, e.g. providing a menu at the beginning of the entry to enable a quick overview of entry senses and quicker navigation through the entry. Another strategy, used by both native and non-native speakers, is the "kidrule" strategy, in which "a short familiar segment of the dictionary definition is taken out of context as an equivalent for the unknown headword" (Nesi and Haill 2002: 285). The strategy was first mentioned by Miller and Gildea (1987) in a study conducted among 10- and 11-year-old children, and was later also found to be used by both students and adults (Harvey and Yuill 1997; McCreary and Dolezal 1999; Nesi 2000; McCreary 2002; Nesi and Haill 2002). A separate group are represented by cases when the users encounter difficulties in dictionary use, also on account of inappropriate search strategies. For example, Selva and Verlinde (2002) report on user difficulties in finding relevant information in polysemous entries and long definitions. Similarly, Tono (2011) also observed users having difficulties with searches in long entries.

The most frequently used dictionaries in dictionary use research are those for advanced learners of English,[14] mainly because these dictionaries are the main sources of lexicographic innovation, and thus most interesting for detecting new trends in dictionary use. Among the innovations introduced by advanced learners' dictionaries are defining vocabulary (first used by the *Longman Dictionary of Contemporary English*), whole-sentence definitions (introduced by COBUILD), semantic indicators or signposts (introduced by the *Longman Dictionary of Contemporary English*), menus (first used by the *Macmillan English Dictionary for Advanced Learners*) and the inclusion of information from learner corpora. The main purposes of these innovations is to help users find the relevant information more quickly, and help them with any encoding tasks. It is thus not surprising that whole-sentence definitions, signposts and menus have gradually been adopted by some monolingual dictionaries for native speakers.

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13 http://ordnet.dk/ddo
14 Especially advanced learners' dictionaries.

There is another important trend worth pointing out in this context, and this is that the online format is becoming predominant. In fact, it is difficult to find a contemporary dictionary without an online version that is released in addition to the paper one. In fact, several publishers have started to stop making paper versions (e.g. in 2012, Macmillan announced the end of their production of paper dictionaries, and has focussed solely on making online dictionaries; Rundell 2014). But the online versions of dictionaries have become much more than simply dictionaries offered in a new format; they have turned into portals offering access to several reference works (dictionaries, thesauri, and so on) and different types of information on language, e.g. blogs on certain aspects of language use, notes on frequent errors, multimedia content, etc. In this way, a dictionary is becoming a part of a language-didactic service. Interesting for educational use is the Wordsmyth portal,[15] offering access to children's, illustrated and school dictionaries for native speakers of English, as well as tools for solving anagrams and crosswords, and for making glossaries and quizzes. These are useful for both students and teachers, and can be used in class.

4 DISCUSSION

So what do we know about the needs, abilities and habits of dictionaries users, non-native speakers and young native-speakers of Slovene, and how can we use this knowledge in planning dictionaries?

4.1

Learning about dictionaries and how to use them is part of the Slovene syllabus, materials related to or including dictionaries can be found in textbooks, and Slovene teachers do not use dictionaries (especially DSLL) only when preparing teaching materials and marking student work, but also in class. Studies show that young native-speakers of Slovene use dictionaries in school when learning about different syllabus contents and during different activities, especially when producing text. In school, a dictionary is therefore not only a reference resource with various information on language, including normative details, but is also an important didactic tool. We can assume that a (descriptive) dictionary made with the needs and abilities of school students in mind would be even more widely used in education, and would have a considerably greater impact on the development of students' communication skills. In order to achieve this goal, we need to

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15 http://www.wordsmyth.net

abandon the traditional notion of a dictionary as a separate resource, and think about the development of an online portal that would offer several types of lexical information. As shown by the analysis of Arhar Holdt and Rozman (2015),[16] we need to apply corpus analysis and the analysis of syllabi to detect the language problems of students and devise resources that will not only alert users to such issues, but also offer ways to solve them. Moreover, standard dictionary contents need to be accompanied with explicit (more "educational") explanations, and with information on grammar, orthography, norm, stylistics, collocational characteristics, differences between synonyms or related words, and options to compare different words or their meanings. Other useful content includes quizzes, exercises, multimedia material, lists of common language problems, lists of word families or semantic types and so on. All these types of information and tools will facilitate students' language acquisition, as it will be easier for students to link new information with existing knowledge and include it in their mental lexicon (see, for example, Rozman 2010: 32). In addition, a combination of information on words and exercises will facilitate the development of strategies for vocabulary acquisition (Paynter et al. 2005: 30–68). Explicit explanations for problems related to norm and usage, which go beyond the existing practice of presenting language use as black-and-white (right and wrong) (Stabej et al. 2008), are extremely important for improving students' understanding of the complexities of language (and with that, their communication skills).

4.2

Having such an informative and didactic value, as described in 4.1, the envisaged dictionary would also be more appealing for students' independent use. Research shows that dictionaries, even online dictionaries, are currently rarely used by Slovene students, yet the internet is frequently used to find language-related information. We do not know the reasons for this, but can assume that one is related to the low user-friendliness of online dictionaries and their entry structure, with the information in these often too condensed, poorly structured and difficult to understand.

Empirical studies, as presented in 2.4 and 2.5, focussed on certain components of dictionary microstructure, have shown that DSLL, as the most widely used dictionary in Slovene education, is often too difficult to understand, especially for younger students (i.e. those in primary schools). The way that grammar information is coded in the entries makes their interpretation very demanding for students, and the findings show that it is much more efficient if grammar

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16 Similar practices can be observed outside Slovenia, e.g. Vocabulary.com and Merriam-Webster.com.

information is provided in the form of a label, example or in a specially dedicated section on usage. Nonetheless, a larger-scale survey is needed to determine not only which grammar information in the dictionary should be made more explicit, and how, but also to identify the best ways of presenting such information (on grammar and other characteristics of words).

As far as definitions are concerned, they need to be devised by considering the development level of students, as evidenced by the rewritten definitions in Rozman (2010), which were produced based on this approach and proved more understandable than those in DSLL (see Section 2.5). Students' vocabulary size and structure, as well as their understanding and knowledge of abstract meanings, the relationships between different words and meanings, longer and more complex syntax, morphology and word formation, all improve over time, partly due to mental and cognitive development and partly due to (language) education in school (see Rozman 2010). However, as Rozman's study focussed only on the understandability of definitions, it does not provide the answer to the very important question of whether definitions aimed at younger students are also suitable for older ones.

Rozman's study points to several characteristics that affect the understandability of a definition, such as: indirect definitions are better than direct ones; definitions with common words are effective in most cases, except when the words used are highly polysemous and reduce exactness and concreteness; and definitions should not contain rare (terminological) words, and should not be too abstract. Moreover, the study offers some suggestions how to approach the sense division of polysemous words, namely that the students have trouble understanding the meaning of the word in the dictionary if the entry contains closely linked senses with complex and abstract definitions.

4.3

Existing research provides some valuable guidelines for planning a dictionary suitable for students and when used as a teaching aid. Nonetheless, several questions remain. One of these concerns the treatment of function words, which has not been addressed by researchers other than Arhar Holdt and Rozman (2015), whose findings point to the need to replace or improve existing dictionary definitions with more functional or grammar-oriented ones.

Also missing is empirical data that would help with the creation of headword lists. Language acquisition theories suggest that during education an individual's vocabulary expands mainly in terms of multi-syllable, abstract and specialized

words, and later also with less frequent and more specialized words. However, limiting the headword list to or focussing dictionary treatment on these words is probably too narrow of an approach, as analyses of the Šolar corpus indicate that students have many problems with general words, especially during language production activities (Kosem et al. 2012a; Arhar Holdt and Rozman 2015).[17] This shows the need for further corpus-based and related research into students' language problems, and for a list of words used in textbooks and other school materials. Nonetheless, even without relevant research it appears that the headword list should include words that exhibit a certain level of semantic transfer, usage different from the regular patterns, words with variants, and words that are semantically or morphologically similar, i.e. words that are likely to cause problems for students (with such efforts also based on analyses of the language problems of adults).[18]

4.4 In sections 4.1–4.3 the focus was on native-speaking primary and secondary students of Slovene. What can be said about non-native speakers of Slovene and a dictionary that would meet their needs? First and foremost, non-native speakers are not a homogenous group – they differ in terms of their L1, proficiency level in Slovene, mode of learning (language course, study course, etc.), and location (in Slovenia or abroad). Language learners also differ in terms of needs and motivation, which are closely related to their learning interests and aims. Nevertheless, these differences can still be successfully addressed by a learners' dictionary, as evidenced by advanced learners' dictionaries of English (see Section 3), which are even a source of lexicographic solutions for dictionaries aimed at native speakers. Advanced learners' dictionaries of English are thus a good model for a dictionary of Slovene for non-native speakers, and possibly also for younger native speakers. However, current information on non-native speakers of Slovene is even more scarce that on young native speakers, as there are very few research studies in this area. In addition, existing learner corpora of Slovene are rather small,[19] and do not enable any comprehensive analysis of non-native speaker writing.

As far as Slovene as L2 is concerned, there is plenty of work for Slovenian lexicographers who can also benefit from the fact that the teaching of Slovene as L2 is a well-developed field. There are thus established methods of teaching, acquiring and learning Slovene vocabulary, documented in various textbooks and other didactic resources.[20] Having information on what vocabulary is taught to non-native speakers (and in what ways) would be of great help in preparing a dictionary

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17 Similarly, international research studies do not provide a straightforward answer on which words, more frequent or rare ones, are more often looked up by the users (see section 3).

18 For example, see Bizjak Končar et al. (2011).

19 The only learner corpora of Slovene in existence are a corpus without annotated errors containing 32,117 words in 306 texts (Rozman et al. 2010), and a learner corpus called piKUST (Stritar 2012) and containing 34,873 words in 128 texts, as well as annotated errors (5,085 in total).

20 For example, in different workbooks and texts, available at the CSDTJ website.

for such users, as well as the related headword list. Another resource for devising a headword list would be lists of words found in textbooks and other materials, such as Sporazumevalni prag za slovenščino ('The Comprehension Threshold for Slovene'; Ferbežar et al. 2004), which describes knowledge of Slovene at level B1 of the Common European Framework of References for Languages. Sporazumevalni prag za slovenščino also groups words according to topics, and categorizes them into semantic groups pertaining to time, space, measurements and so on, which can be useful information for non-native speakers. Finally, the headword list could also draw information from the vocabulary used in language proficiency tests.

5 CONCLUSION

The overview of dictionary use research in Slovenia and a discussion on the needs of native-speaking school students and non-native speakers of Slovene, as presented in this work, make us wonder whether it is possible to make a single dictionary that would meet the needs of both types of users. The question is interesting in relation to the use of dictionaries in education and language learning. Acquisition of L1 and L2 vocabulary are two different processes, although they have several common aspects (Singleton 1999: 79–82; see also Jesenovec 2004). In order to identify the common aspects that can be addressed in a dictionary, more research and user studies are needed. It is also essential to consider the didactic aspects of such a dictionary, or dictionaries, as solutions related to this would be highly relevant and useful for both types of users.

There is another option worth considering, namely whether a contemporary general dictionary could be suitable for native- and non-native speakers. This opposes the general argument of this paper, although a few findings prevent us from completely dismissing this idea. Firstly, all the studies into general dictionary used DSLL, a dictionary that is outdated and found to be difficult to use even by adult native speakers of Slovene[21] (Kosem 2006: 26; see also Müller 1996 and 2009). Secondly, teachers think that a general dictionary is suitable for these two types of users, and although we do not agree with this view, we cannot deny that the use of such a dictionary in certain teaching situations can be useful. Finally, a general dictionary compiled with state-of-the-art methods would take into account findings about common look up strategies, address frequent language problems of users, and consider the needs of school students and non-native speakers, and thus could be much more suitable for language teaching and learning than DSLL. Moreover, if available in the form of a portal,

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21 There is no empirical evidence to support this claim, as there are no studies into understandability of DSLL, conducted among adult native speakers.

the dictionary could provide didactic content (in a separate section), which may be less interesting for other users but would be very important for students and non-native speakers.

Neither of these questions (the possibility of compiling a single dictionary for both types of users; the use of a general monolingual dictionary) can be answered with a clear yes or no, as current lexicographic research in Slovenia does not offer enough evidence to support any answer. As there is a certain overlap in the needs of both types of users (young native speakers and non-native speakers), and as digital media formats offer the possibility of combining different lexicographic solutions, it makes sense to think about compiling a common dictionary database containing information relevant to all types of users, and information relevant to individual user groups.

Such a database then offers various possibilities, e.g. we can compile several dictionaries for different types of users, or a portal containing (carefully structured) information for all types of users, both, or something completely different that we have not yet considered. Another benefit of such an approach is that in the meantime more empirical studies can be conducted, which can provide much information on which to base our decisions on.