Introduction

The first part of the paper brings a brief overview of how Slovenian curricula and school books for primary and secondary schools incorporate the use of monolingual dictionaries in teaching of Slovenian as the mother tongue. In Slovenia there is no dictionary designed for the school population, with the exception of a few smaller lexicographic teaching materials for the youngest group of primary school children (6-9 years). The Dictionary of Standard Slovenian (Slovar slovenskega knjižnega jezika, hereafter DSS), currently the only existing general monolingual dictionary of Slovenian, is used in schools. Published in five volumes between 1970 and 1991, DSS is outdated in many aspects and from the viewpoint of use in schools it is even more problematical since it is not suited to the needs and language ability of this particular target audience. Especially problematical are the comprehensibility of the defining language and the comprehensibility of the complicated labelling system, employed to convey the paradigmatic properties of entries and limitations regarding their use.

The second part of the paper presents the empirical research which had two aims: on the one hand, to determine how the school population understands various definition types from DSS and how comprehensible the set of its labels is, and, on the other hand, to test several versions of various microstructural elements which should be suited to this particular target audience. The research covers three groups of school population at three different stages of cognitive and language development (10-12, 13-15 and 16-18 years), and the results bring useful information regarding a possible concept of a school dictionary of Slovenian.

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1 But later reprinted and reissued in various printed and electronic versions.
1. The dictionary in curricula and school books for Slovenian

A monolingual dictionary is one of the fundamental language reference works, so the introduction into the use of dictionaries is included in curricula and school books for Slovenian. Although the curriculum for the first three years of the primary school (6-8 years) does not cover the use of dictionaries, there are a few pictorial lexicographic teaching materials available, which are intended for the pupils to acquire new vocabulary. The materials also comprise alphabetical glossaries and small thesauri. The use of language reference works is introduced in the second three years of the primary school (9-11 years); at first just as one of the possible aids (besides teachers, parents and classmates) for correcting “inappropriateness, unintelligibility and irregularities” in texts, viz. “content, stylistic, grammatical and orthographical errors”, as stated in the curriculum. A more important role is assigned to dictionaries during the last three years of the primary school (12-14 years) when the pupils are encouraged to consult dictionaries when they encounter problems in understanding. In this period the pupils are also made aware of the use of contemporary language reference works. Systematic study of dictionaries and their use is planned for the secondary school (15-18 years).

Normally, the compulsory teaching materials cover the contents prescribed by the curriculum and therefore school books contain series of exercises which include the use of a monolingual dictionary. The amount of such exercises varies from publisher to publisher, but the exercises are included from the 4th grade of the primary school onwards. In principle, this is good practice, since, on the one hand, the step by step introduction into using dictionaries seems to be appropriate method for their successful and independent use, and, on the other hand, monolingual dictionaries have a positive role in vocabulary acquisition (Paynter et al. 2005). Nevertheless, (some of the) school book exercises dedicated to dictionary use seem to be somewhat problematical because the only existing general monolingual dictionary of Slovenian is DSS, which is not only outdated but also “scholarly” dictionary—some elements of this dictionary might present difficulties even for adult native speakers of Slovenian with average language competence (cf. Kosem 2006; Rozman in press). So, in school books we find quite a number of exercises where these facts have not been taken into account and are problematical from the viewpoint of the use of dictionary in school. To give just one example from the school book intended for the 8th grade of the primary school (Črešnik et al. 2003: 39):

Kako imenujemo človeka, ki je izdelal reklamo? Poglej v SSKJ.2
a) reklamant, b) naročnik, c) oglasovalec, d) sporočevalec

Of the four possible answers b) and d) cover broad semantic areas and do not correspond to the meaning which is also confirmed by their definitions in DSS. According to DSS reklamant is “a person who submits a complaint”,3 but FidaPLUS4 does not confirm the word to be in common use.5 The only remaining word, which is also the correct answer, is oglasovalec, yet with the use of DSS the only way for the pupils to acquire this information is by the elimination of wrong answers, because the definition in DSS is different: “a person who places a(n small) advertisement”.6 Although oglasovalec is a frequent word (5386×) and is mainly used in the meaning about which the task is asking, it is nevertheless easy to understand the absence of this definition in DSS. In the period of Slovenia’s independence the advertising sector has developed immensely and consequently enforced the use of previously less frequent synonym of the word reklama, i.e. oglas – this word became the base for the formation of new words

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2 “How do we call the person who has designed an advertisement? Consult DSS.”
3 “Kdor reklamira, se pritoži.”
4 FidaPLUS is a referential corpus of written Slovenian, which comprises 621 million words (www.fidaplus.net).
5 The word does appear in the corpus FidaPLUS once in this meaning, one instance denotes an occupation, another four instances occur in crossword puzzles.
6 “Naročnik (malega) oglas.”
used in this field. In these instances DSS fails to show contemporary use of language and because of that the pedagogical aim of this exercise is questionable—it is not included e.g. in a chapter intended for discovering the features of a given dictionary.

Despite of the problems indicated above, considerations whether specialized dictionaries, suited for a specific target user, are at all necessary, have been rather rare until recently in Slovenia. All this has initiated the designing of the outline for a research through which we intend to verify the comprehensibility of information in dictionaries among the school population and to provide solutions for more effective designing of school dictionaries.

2. Empirical research

The aim of this research was to test the comprehensibility of dictionary definitions and descriptions of use for content words: first, for those from DSS and, second, for newly edited entries where the cognitive and language development and corpus data on contemporary Slovenian use have been taken into account. The research covers the various groups of children and adolescents: 10-12 years (before the development of abstract thinking), 13-15 years (transition from concrete to formal logical thinking), 16-18 years (formal logical thinking). This division into age groups is based on cognitive and language development as defined by developmental psychology (Marjanovič and Zupančič 2004), the preposition being that—given the same tasks—younger children will encounter more difficulties in understanding than the older ones. This would be governed especially by better linguistic ability of older test takers, their better abilities for abstract thinking and more (school) experience in using language reference works.

The research was carried out between December 2007 and February 2008. Approximately 600 children were included in the research, approximately 200 for each age group. Testing took place at ten schools in various parts of Slovenia, eight of them were primary schools and two high schools (one with the general programme and the other with a technical one).

Before this a pilot research was carried out in spring 2007. 76 children were included, approximately the same number for each of the three age groups. All were given the same test with the only purpose to verify the comprehensibility of dictionary information in DSS. Analysed results acquired in this pilot research have provided us with useful information which helped us in the designing of the new test, and providing at the same time the grounds for individual changes of the previously prepared test. Some deficiencies in testing methods as well as mistakes regarding the technical and content sides of the test were revealed, which led either to changes in individual tasks or to their complete exclusion from the test. Besides that the first answers have already indicated where the children would encounter the most difficulties in understanding of DSS’s dictionary data, and this has influenced—to a certain extent—the design of new dictionary entries tested with the new test.

The principal part of the research was designed to consist of two parts. One half of the test takers were tested for the comprehensibility of DSS’s dictionary information, and the other half for comprehensibility of the new dictionary entries. Both tests had two parts: the first was intended to check the comprehensibility of definitions, and the other the comprehensibility of the descriptions regarding the use of lexical units. The youngest age group was asked to take only the first part of the test, because the entire test would be too long, and its second part also too difficult for them—at this age the children are not yet expected to be able to draw the information on use from a dictionary.

2.1. The comprehensibility of dictionary definitions

In this part of the test our aim was to establish which definition types would be more comprehensible for children, and which would be good and bad sides of the definitions, influencing the understanding of the meaning of a word. The first hypothesis was that many

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7 Even some older pupils had problems with concentration, because there were several different tasks in the test, and beside that they had to read quite a lot of text.
DSS’s definitions are too difficult for this target audience, which is the consequence of the definitions being abstract and the defining language being too demanding. We consider a definition as abstract when it consists of otherwise familiar words but the (complicated) structure of the description does not evoke a concrete idea about the meaning of a word. We consider the defining language to be too demanding when the meaning of an unknown word is explained with the so called “difficult” words, i.e. with words which are not used frequently or for which we may assume that the children do not learn them at early stages of their development. The other hypothesis was that the new definitions would be easier for children to understand, since we have taken into consideration the findings about the stages of cognitive and language development, as well as corpus data on contemporary use of Slovenian8 and modern (especially English) lexicographic practice.

The selection of words for which the definitions were examined is based on those exercises in school books where the use of a dictionary is explicitly prescribed or where it would seem reasonable. Only content words were included in tests since dealing with function words would necessarily lead us to the field of discourse. In that way we would have to tackle series of new issues, which are not a bit less important for lexicography, but we would be reaching far beyond the framework of our research. For similar reasons we have not included phraseological lexical units in our tests. We have assumed that the 16 selected words (nouns, adjectives, verbs) would be the appropriate quantity to deal with: this has enabled us to include various definition types into our tests; at the same time we have assumed that the testing would not take up too much time, since the limitation was a class (of 45 minutes). In our test we have included classic lexicographic, synonymous and hybrid (a combinations of lexicographic and synonymous) definitions,9 definitions of words with one or more meanings, and, besides the difficult or problematic definitions also those definitions which we have considered as good. The latter were included to confirm our assumptions on comprehensibility of definitions on the one hand, and to prevent the test takers to detect a possible trap pattern set by distractors throughout the test.

Test takers were given solely the headword and all of its definitions, other parts of the entry were omitted because they would present a possible difficulty in interpreting of the results. For the purpose of the examination a multiple choice task was selected; distractors were designed to target the supposed weaknesses in definition and possible causes leading to difficulties in understanding. The test takers were being asked about the meaning of a word (e.g. Kaj so glivice? “What are fungi?”) or a short sentence in which the word occurs (Kaj pomeni stavek “Japonski preiskovalci bodo skušali ugotoviti identiteto ugrabljenih ljudi”? “What does the sentence ‘Japanese investigators will try to determine the identities of the kidnapped persons’ mean?”—here the understanding of the word identiteta “identity” viz. its definition is examined). Although we are aware that the context might influence the understanding of a word’s meaning, it was not completely excluded from testing; minimum context is necessary at least for words with more than one meaning, otherwise it would not be clear which meaning is relevant for the test.

The test takers were equipped with a set of definitions, and, if they did not know the answer, they had to mark the definitions which might help them to answer the question correctly. The instruction was to tick those words for which they have read the definitions and to underline those sections in definition which they had found most helpful in completing the task. With this we were able to exclude from further analysis the answers of those pupils who had already known the word or had just guessed about its meaning.10 The underlined sections represented important information on useful or good (and bad) parts of the definition.

Let us have a look at a task testing the comprehensibility of DSS’s definition:

8 We have used data from the corpus FidaPLUS.
9 The majority of DSS’s definitions are lexicographic.
10 We analysed these answers separately and checked whether there existed a statistically important difference between these answers and the answers for which the dictionary was consulted.
**Ohol človek je:**
prepričan, da je boljši od večine drugih ljudi, ki jih ima za manjvredne.
prepričan, da je njegovo ravnanje najboljše, zato se pogosto jezno pritožuje nad ljudmi.
prepričan, da ima vedno najbolj prav, zato rad in pogosto ukazuje drugim.\(^{11}\)

Definition: *zeo ošaben, zelo prevzeten* (‘very arrogant, very presumptuous’).

Most DSS’s definitions—as well as those in our test—are lexicographic, but nevertheless definitions by synonyms also occur. A definition by synonym is tested in the given example. The words *ošaben* “arrogant” and *prevzeten* “presumptuous” are synonymous and have nearly identical definitions in DSS (“having a very high opinion of oneself and showing arrogance, contempt to other people”)\(^{12}\)—in the above definition their meanings are intensified with the adverbial component *zelo* “very”. Synonymous definitions as such do not necessarily present a problem, but in this case a difficulty arises because the given synonyms are not exactly frequent and are very likely unknown to quite many pupils (the frequencies from the FidaPLUS corpus: ohol: 508×, ošaben: 529×, prevzeten: 442×). A synonymous definition employing less familiar words definitely fails to meet one of the important principles of good defining, i.e. “The definition /.../ must answer the question, “what is it?,” directly and immediately” (Landau 2001: 162).

We have tried to employ the general lexicographic principles of good dictionary defining (cf. Landau 2001: 157-171) in writing of new definitions, but in some instances we have decided in favour of clarity or comprehensibility over brevity. Although the majority of new definitions are lexicographic, there are also some sentence definitions in which we have ignored some of these principles. Although individual authors have various reservations about definitions of this type (e.g. Béjoint 2000: 72), they seemed to prove useful for the defining of adjectives. Definitions of this type have enabled us to point out the most frequent nominal collocate and a possible subjective attitude of the speaker, which is implied with the use of the adjective. This has enabled us to form not overly concise definitions, using a more natural and supposedly more comprehensible defining language. The new definition of the word *ohol* “high-minded” now reads:

*ohol človek je prepričan, da je boljši od večine drugih ljudi, ki jih ima za manjvredne* (“a high-minded person believes that s/he is better than the majority of people, which s/he considers inferior”).

This was also the correct answer for the task intended to test the comprehensibility of DSS’s definition, which we have provided in our test. Since we have supposed that DSS’s definition is less comprehensible because the given synonyms might not be understood, we had to invent the distractors (without any presumption on why the test takers would choose either of them), our only care has been that on the positive–negative scale they were similar to the correct answer. Distractors in the new task were similar, only somewhat shorter, since we have offered a shorter paraphrase of the meaning for the correct answer as well.

**Ohol človek**
se ima za nekaj več.
se rad pritožuje nad drugimi ljudmi.
rad in pogosto ukazuje drugim ljudem.\(^{13}\)

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\(^{11}\) “A high-minded person”: a) believes that s/he is better than the majority of people, which s/he considers inferior; b) believes that her/his actions are the most appropriate and because of that s/he often angrily complains over other people; c) believes that her/his opinion is always the most accurate and because of that s/he likes to boss around other people and does that frequently.

\(^{12}\) “Ki ima pretirano dobro mnenje o sebi in kaže prezir, zaničevanje do drugih.”

\(^{13}\) “A high-minded person”: a) believes to be superior; b) likes to complain about other people; c) likes to boss around other people and does that frequently.
2.2. The comprehensibility of descriptions of use in dictionaries

This part of the test focuses on the comprehensibility of labels, denoting paradigmatic features of words and pragmatic limitations in their use, as well as the comprehensibility of the information on syntagmatic patterns. These tasks are only partially based on exercises from school books. Some tasks were designed for the specific purpose of examining those elements of DSS which, in our opinion, might be difficult to understand.

Our hypothesis was that the information in DSS is difficult to understand and we have provided three reasons to support our hypothesis: (1) the labels are mainly abbreviated; (2) the system of labelling either neutral or marked synonymous variants from the viewpoint of more or less usual (frequent) use is coded by the use of various punctuation marks in the definition, by the number of synonyms listed and by the knowledge on the words’ origin (foreign – native); (3) the use of words which might be problematic due to specific syntagmatic features is not highlighted in any way—although some of the entries do provide examples illustrating such use, these can be easily overlooked since they are usually listed in a rather lengthy string of various illustrative examples.

Because our aim in this section was to test the comprehensibility of various types of dictionary information, the tasks vary: sometimes the test takers were given the integral versions of dictionary entries, sometimes only their parts; the tasks were either of the multiple choice type or the test takers had to provide short answers or to do completion tasks. In some instances the test takers also had to mark those entry elements containing information which they have found helpful.

Let us consider an example where we test the comprehensibility of the DSS’s grammatical label denoting the masculine gender and the ability to implement this information in the instruction on proper use of the noun finale “final”:

Instruction: Read the information provided on the word finale in the frame and complete the task.

Finale -a m - šport. zadnje in odločilno tekmovanje izbranih, najboljših

What is the gender of the word finale? ______________

In the below sentence put the verb trajati in the past tense:

Finale teniškega turnirja v New Yorku je lansko leto (trajati) ______________ skoraj štiri ure.

Is there any data in the frame which can help you in completing this task?

Mark one of the answers: YES (underline them!)  
NO

Finale is a masculine noun but carries the typical ending of neuter nouns. Since the gender of the nouns determines the form of the attributive adjective in some cases as well as individual verbal forms within sentences, knowing the noun’s gender is important for proper use.

In comparison with many other labels the DSS’s label for the masculine gender (m) should not be too problematic since it is frequently used in teaching of Slovenian. This assumption was checked with a direct question asking about the gender of the word. It was assumed that the second task will be more demanding, because the test takers had to use the verb trajati ‘to last’ in the past tense (indicated with the underlined auxiliary je ‘has’ and the phrase lansko leto ‘last year’ in the sentence). The form used with the masculine gender is je trajal ‘has lasted’ but our assumption was that a significant number of test takers would choose the form je trajalo, indicating the neuter gender. According to the language instinct only this form seems to be correct, and DSS provides no explicit directions on any other use.14 The last question was intended to check whether the test takers could identify the relevant information in the dictionary or they would merely complete the task following their instinct or employing previously acquired knowledge.

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14 The test takers were not given illustrative examples, since in this case they would be irrelevant—none of the three examples appears in a context which would illustrate the use of the verbal (or at least adjectival) form.
In designing new dictionary entries our decision was to present all relevant information explicitly: labels are to appear in their integral form (i.e. not abbreviated), any possible peculiarities regarding the use are to be pointed out in usage notes. Most of the tasks remained unchanged.

Let us take a look at the altered entry for the word \textit{finale}. The definition and the genitive ending remain unchanged, instead of the abbreviated label (m) the integral form \textit{moški spol} ‘masculine gender’ is given (the second label was left out); we added the usage note introduced by an exclamation mark and the word \textit{pazi} “attention” (“!ATTENTION: the word \textit{finale} is of masculine and not of neuter gender”). Besides the explicit information on the gender there is also the illustrative example where we emphasized those parts which might cause difficulties: the definite form of the adjective (\textit{veliki} “grand” instead of \textit{veliko}), the verb (\textit{bil} “has” instead of \textit{bilo}) and the indefinite form of the adjective (\textit{razburljiv} “exciting” instead of \textit{razburljivo}).\footnote{An even more explicit and self-explanatory information would be in the form of a “non-example” of use with inappropriate forms and a warning about the inappropriateness of such forms. We decided to not include this into our tests because we wanted to see if even without that the information is straightforward enough—and the question of dictionary space is still relevant in printed dictionaries.}

\begin{tabular}{p{0.98\textwidth}}
\textbf{finale} -a, moški spol – zadnje in odločilno tekmovanje izbranih, najboljših \\
\textbf{Pazi:} Beseda finale je moškega in ne srednjega spola: \\
\textbf{Veliki} finale SP v hokeju na ledu je \textbf{bil} zelo \textbf{razburljiv}. \\
\end{tabular}

\textbf{3. Conclusion}

At the time when this paper is being finalized the analysis of the test results is still in progress and therefore—alas—we cannot yet present the final results of the research. The analysis is to be finished by June 2008 and we expect that it will, on the one hand, present a guideline for a possible future research on dictionary use (no such research has previously been carried out in Slovenia), and, on the other hand, to outline a possible concept of a school dictionary of Slovenian.

Nevertheless, the initial results indicate that the final results might confirm the hypothesis on poor comprehensibility of the dictionary data from DSS. However, DSS is a comprehensive lexicographic work and much trust is put in it by Slovenians in general\footnote{For more information on that topic cf. Rozman, in press.} (as well as by the authors of school books for teaching Slovenian as the first language). Although it seems that in many instances DSS is not a “helper” but rather just “of little help”.
References


