

An editing system with a word-level identification function for adjusting sentence difficulty

Tatsuya Kitamura

Faculty of Intelligence and
Informatics, Konan University, Japan

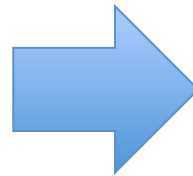
Background and Aim

「山本さんは代表に選出された。」

「山本さんは代表に選ばれた。」



N4 learner



We proposed an editor with a word- and phrase-level identification function.

Reading Tutor (Kawamura, Kitamura and Hobara, 1999-)

- <http://language.tiu.ac.jp/>
- Toolbox
 - Dictionary tool
 - Word level checker
- Reading resource bank

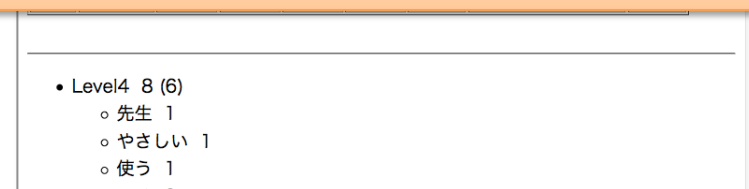


Word level checker

- <http://basil.is.konan-u.ac.jp/chuta/level/>
- Automatically identify word level by color-coded words



Criteria for word level identification are fixed



Kabuto editor

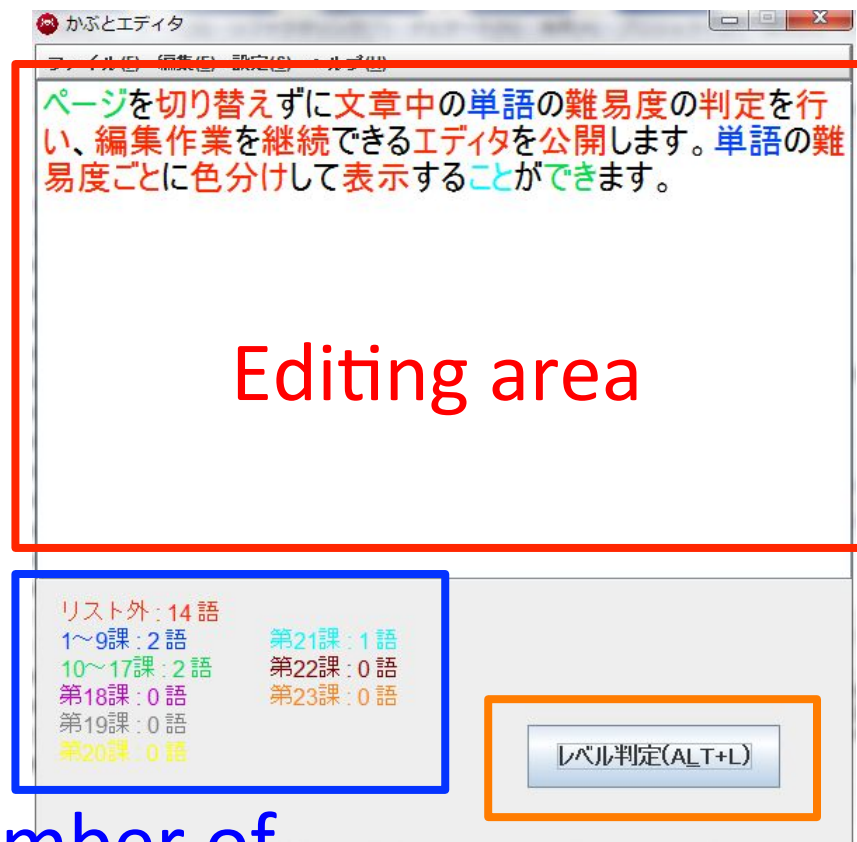
- Editor with a word- and phrase-level evaluation function
 - Color-coding words and phrases according to the word level
- Users can make and use original word lists for defining word and phrase levels.
- Java application (compatible with any type of OS)
- Free
 - <http://basil.is.konan-u.ac.jp/chuta/editor/>
 - Please read manual first.

What is *Kabuto*?



Konan University is located close to Mt. *Kabuto*.

Screenshot of *Kabuto* editor



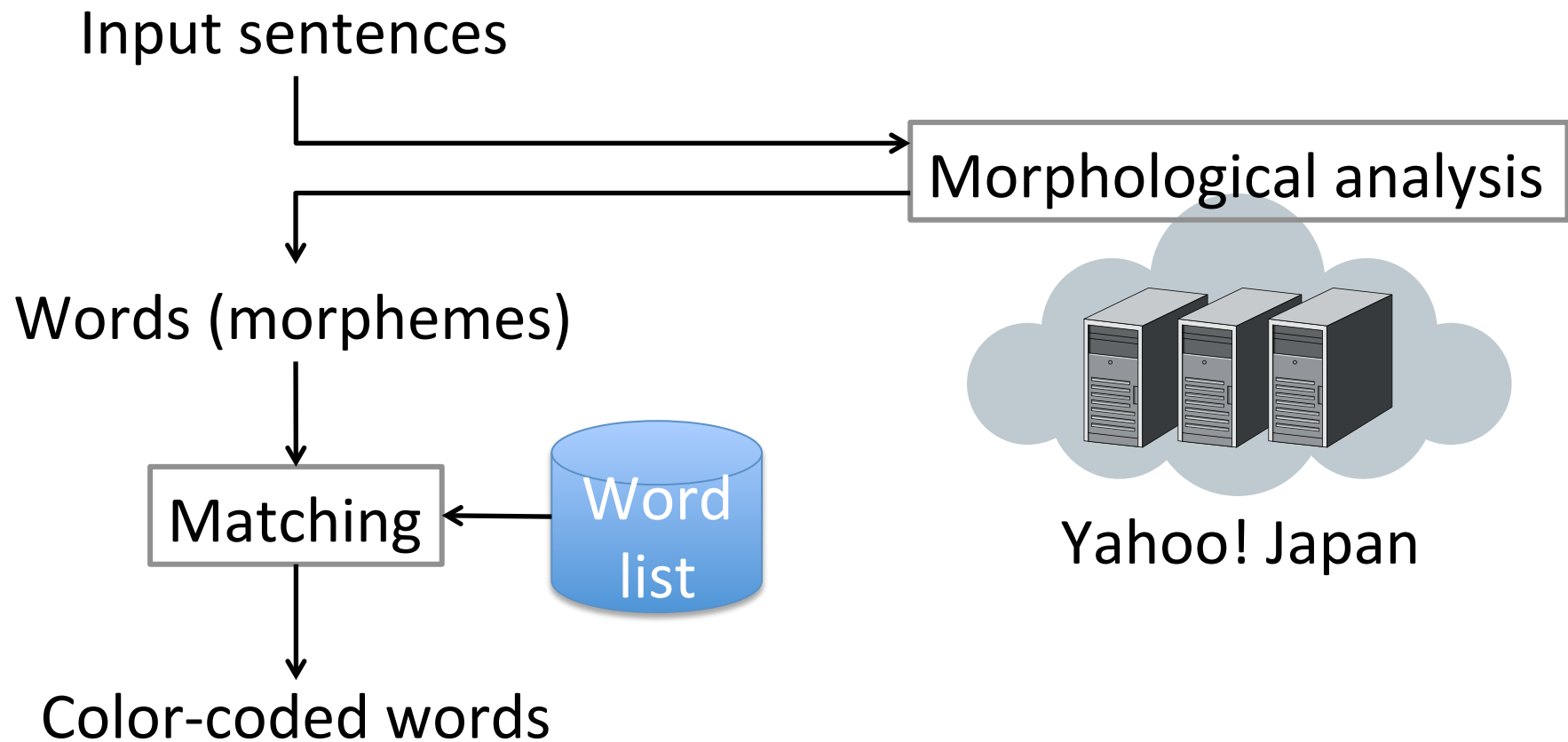
The number of
words of each level

Level identification
button

Demo movie



Word level identification process



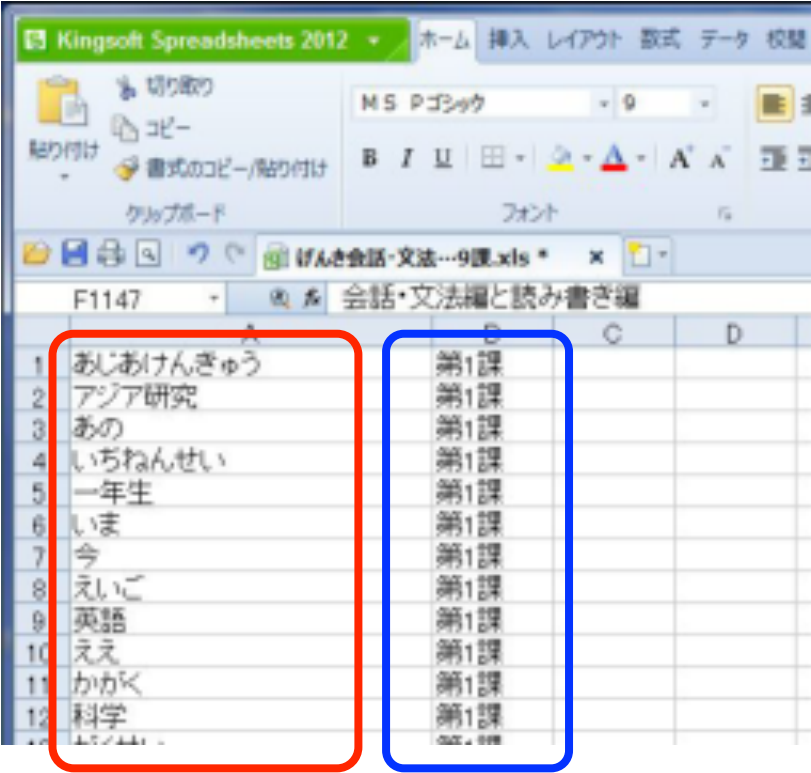
Example of morphological analysis

Input sentence: 犬が好き

```
<filtered_count>4</filtered_count>
<word_list>
  <word>
    <surface>犬</surface>
    <reading>いぬ</reading>
    <pos>名詞</pos>
    <baseform>犬</baseform>
    <feature>名詞,名詞,*,犬,いぬ,犬</feature>
  </word>
  <word>
    <surface>が</surface>
    <reading>が</reading>
    <pos>助詞</pos>
    <baseform>が</baseform>
    <feature>助詞,格助詞,*,が,が,が</feature>
  </word>
  <word>
    <surface>好き</surface>
    <reading>すき</reading>
    <pos>形容動詞</pos>
    <baseform>好き</baseform>
    <feature>形容動詞,形動,*,好き,すき,好き</feature>
  </word>
</word_list>
<ma_result>
```

Word level file

- Excel file
- 1st column: word, phrase
- 2nd column: word level

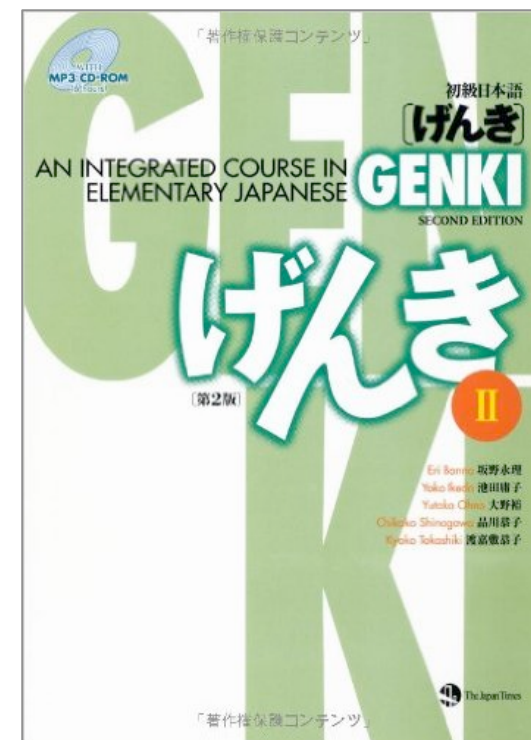
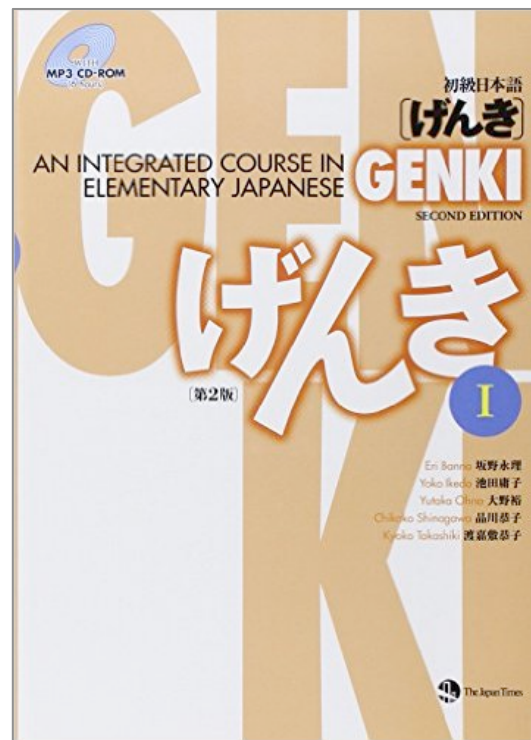


	A	B	C	D
1	あしあけんぎゅう	第1課		
2	アジア研究	第1課		
3	あの	第1課		
4	いちねんせい	第1課		
5	一年生	第1課		
6	いま	第1課		
7	今	第1課		
8	えいご	第1課		
9	英語	第1課		
10	ええ	第1課		
11	かか	第1課		
12	科学	第1課		

Word/Phrase level

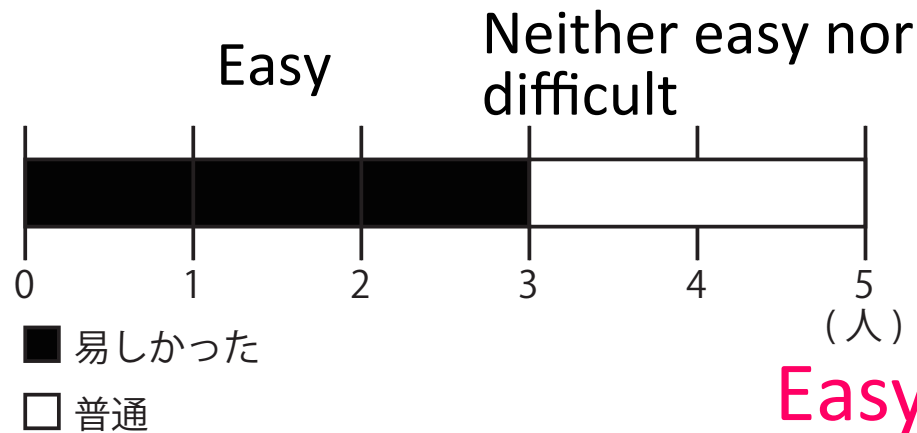
Bundled word level files

Word lists based on “GENKI” series of the Japan Times



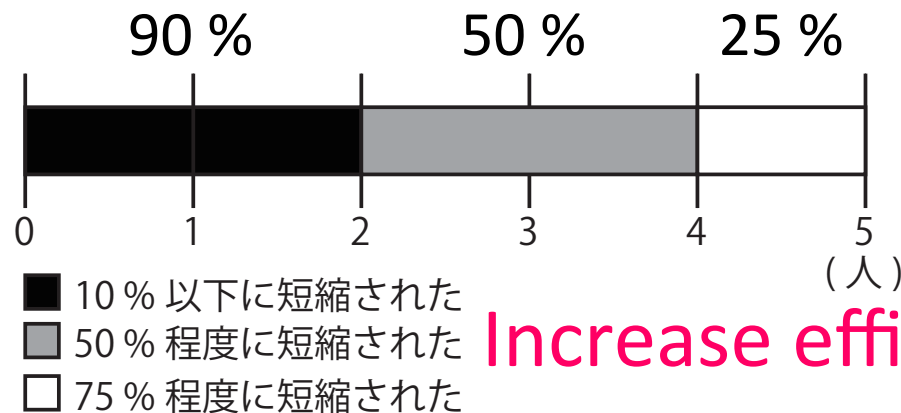
Evaluation by 5 teachers

Usability



Easy to use!

Reduced word search time during making teaching materials (%)



Increase efficiency!

Conclustion

- *Kabuto* editor will automatically identify the word and phrase level according to a word level file.
- Users can make original word list.
- The system can help teachers to prepare teaching materials.
- The system can be utilize to write easy Japanese texts.
- Please make and share your original word level file.

Kanji level identification mode

