

Background

- Incidental vocabulary acquisition through reading is a slow and unpredictable process with small learning gains. Moreover, assumptions underlying incidental vocabulary acquisition (noticing, guessing, guessing-retention, cumulative gain) should not be taken for granted (Laufer, 2003, 2005).
- Enhancement techniques such as glosses, dictionary use, bold typeface, ... tend to foster students' picking up new words during reading (Nation, 2001).
- Cognitive processes underlying word learning: 1) noticing new words, 2) processing new words elaborately, 3) consolidation of form-meaning connections (repetition) (Baddeley, 1997; Ellis, 1994, 1997; Hulstijn, 2001; Laufer & Hulstijn, 2001; Nation, 2001; Schmidt, 2001)

Research questions

1. What is the effect of a posttest announcement on L2 learners' look-up behaviour and on their retention of German target items?
2. What is the effect of Word Relevance on L2 learners' look-up behaviour and on their retention of German target items?
3. What is the effect of a Post-Reading Vocabulary task on L2 learners' retention of German target items?

Three experimental studies

Participants' L1 = Dutch - L2 = German

Independent variables:

1. Test Announcement = presence/absence of an explicit warning to students that a test will follow after they have read a text (incidental - intentional, see also Hulstijn, 2001, 2003)
2. Word Relevance = relevant words are relevant in terms of task completion (= answering comprehension questions)
3. Post-Reading Vocabulary Task = translation of target words that were presented in context

Dependent variables:

1. Look-up behaviour (online) = number of clicks on target item
2. Recall of target items' meaning via immediate and delayed posttests = 16 target words (= pseudowords), divided into 8 plus-relevant and 8 minus-relevant words

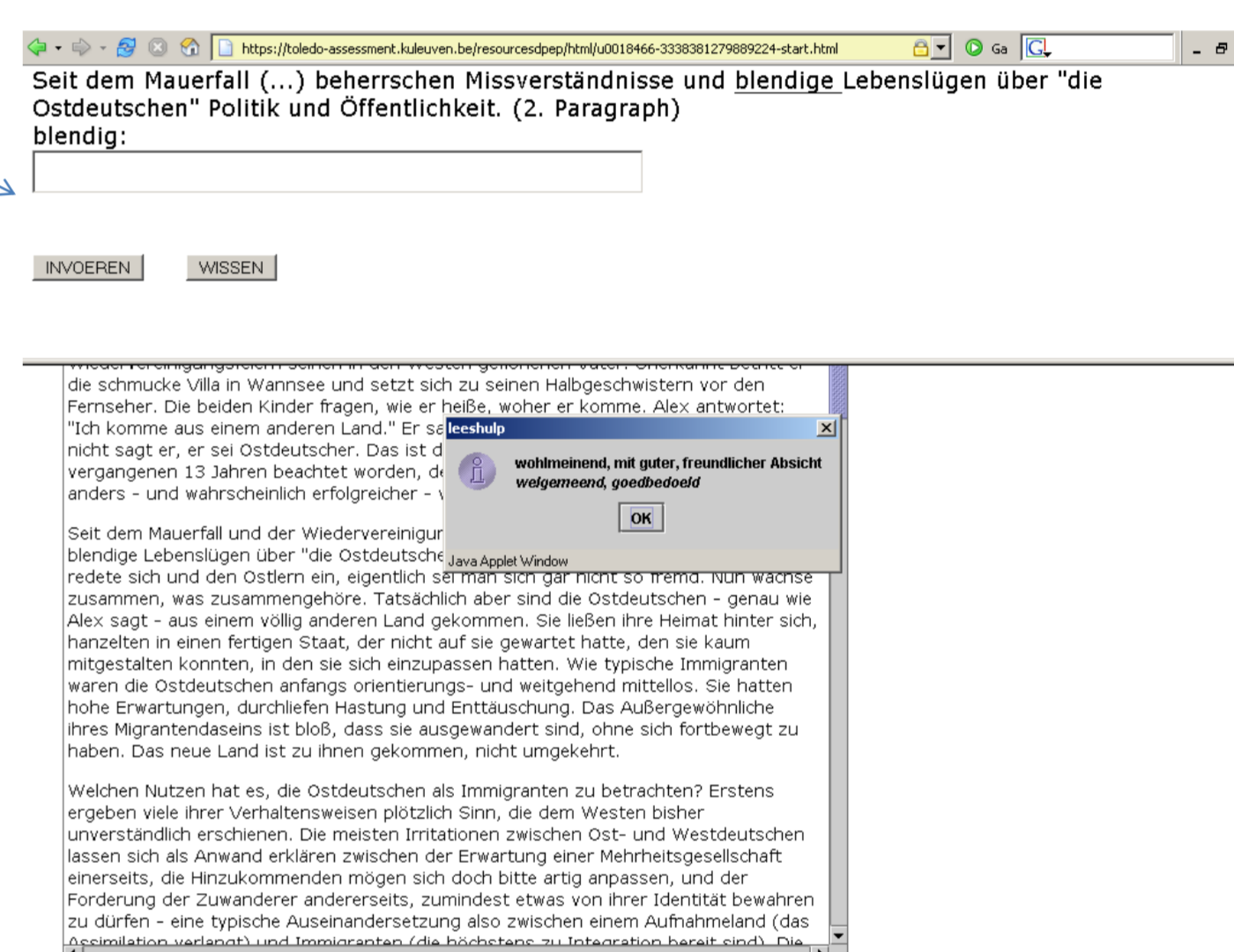
Three studies:

1. Study 1 (N = 21): Test Announcement (between-subject) → +/- forewarning of a posttest (2 experimental groups)
2. Study 2 (N = 84): Test Announcement (between-subject) + Word Relevance (within-subject) → (2 experimental groups)
3. Study 3 (N = 137): Test Announcement + Word Relevance + Post-Reading Vocabulary Task (between-subject) → +/- forewarning of a posttest (2 experimental groups) AND +/- vocabulary task (2 experimental groups) → 4 experimental groups + within-subject variable

Text excerpt **with plus-relevant** target word in bold:
*Nach 1989 gab es für die Ostdeutschen fast nichts, was sich nicht änderte. Ein neues politisches System hielt Einzug. Aus den Regalen der Kaufhallen verschwanden die gewohnten **Kölche**, aus dem Radio die gewohnten Sender.*

Question related to this sentence/TW:
Wat verdween er na 1989 uit de winkelrekken? (What disappeared from the supermarkets after 1989?)
ANSWER: de gewone voedingsproducten (normal food)

No comprehension questions were asked about excerpts containing minus-relevant words.



Design of study 3

	Vocabulary Test Announcement	Vocabulary Task	Word Relevance
Group1 INCID ONLY	No	No	Yes
Group2 INCID PLUS	No	Yes	Yes
Group3 INTENT ONLY	Yes	No	Yes
Group4 INTENT PLUS	Yes	Yes	Yes

Procedure of study 3

Data collected via computer.

1. Students read instruction.
2. Students read text and answer comprehension questions (text available).
3. INCID PLUS and INTENT PLUS groups carry out post-reading voc. task.
4. Participants take three immediate posttests: word form recognition test, meaning recall test, meaning recall test with context.
5. Participants answer retrospective questions.
6. Participants take vocabulary size test.
7. Two weeks later: students take two delayed posttests (meaning recall test, meaning recall test with context)

Results

- Test announcement → effect on look-up behaviour
→ effect on participants' recognizing word form (only in study 3)
- Word relevance → NO effect on word retention, as measured by two meaning recall tests
→ effect on look-up behaviour
- Vocabulary task → effect on word retention (immediate + delayed)
→ effect on word retention (immediate + delayed)

Students forewarned of a post-reading vocabulary test look up more words than those not forewarned. But this enhancement technique had no effect on recall of target words' meaning.

Words deemed relevant for task completion were looked up more frequently. In addition, their meaning was better recalled in the short and the long term.

Participants who carried out a post-reading vocabulary task provided the meaning of more target words compared to participants who did not.

Discovering meaning + elaborate processing + repeating > discovering meaning + elaborate processing > discovering meaning

Discussion

- It is possible to manipulate participants' **noticing** of words by means of Test Announcement and Word Relevance. The two enhancement techniques made participants more sensitive to unknown words. As a result, they paid more **attention** to unfamiliar and unknown words.
- The comprehension task made the plus-relevant words **salient** for learning by directing participants' **attention** to these words. Irrespective of the number of lookups, participants **processed** the plus-relevant target words more often and more **elaborately** than the minus-relevant words because they really had to do something with these words (looking-up meaning; integrating translation of plus-relevant word in answer to comprehension question, ...).
- Participants who had carried out a post-reading vocabulary task engaged in processing the target words even more than students who had not. They had more **repeated encounters** with the target words, which strengthened the form-meaning connection leading to consolidation and promoting word retention.