Summary

Introduction: background of the study and research questions
Insufficient Dutch language proficiency of immigrants hampers integration and causes foreign and native students in the Netherlands to drop out. The Dutch government considers a content based approach (CBA) in language education a promising option for remediating language deficiencies. Several studies show the combined teaching of language and content can be effective.

The Dutch Directorate Coordination Integration Minorities of the Department of Justice (Directie Coördinatie Integratie Minderheden van het Ministerie van Justitie) wants to stimulate the use of effective versions of CBA. Therefore the Scientific Research and Documentation Centre of the Department of Justice (WODC) has requested a study into the factors influencing the effectivity of existing and future instructional devices based on the content based approach. The study incorporates primary, secondary and adult education. The research questions are:

-    Which instructional devices based on the CBA can be found in primary, secondary and adult education in the Netherlands?
-    What are the basic principles of CBA?
-    Which of these basic principles has been shown effective for language teaching in empirical research?
-    Which of the principles proven to be effective can be found in a selection of 10 CBA-based instructional devices used in the Netherlands?
-    Can the 10 selected CBA-based instructional devices be expected to be effective in stimulating language proficiency?

Procedure
The study consisted of two phases, the first aiming at producing an inventory of Dutch CBA-based instructional devices (the first research question) and the second analytical phase aimed at answering the other research questions.

The answer to the first research question was produced by interviewing over the telephone, through searches in digital libraries of the University of Amsterdam and manual searches through recent volumes of professional linguistics journals. Following the first phase, after consultation of the supervising committee, the cli-

ent of the study decided to have the researchers carry out the second phase of the study and to analyze 8 teaching methods and two programs for teacher training. Material to be analyzed was selected pursuing maximum variation in groups aimed at, in educational streams, subjects incorporated and the number of aspects of language proficiency the material explicitly covers.

The second phase comprised a literature review in order to define CBA and select aspects of CBA empirically proven to be effective. Based on the results of the review, an analytical framework was constructed and instructional devices were analyzed according to the framework.

Results

In the following aspects of CBA more or less proven to be effective through empirical research are listed. Along with each aspect, a discussion is presented of the degree to which the instructional devices analyzed use the aspect concerned.

The content: combining language teaching, teaching subject matter and relating students' own experiences

Only instructional devices and programs for teacher training are selected for inclusion in the study that claim to use a content based approach. All devices and programs analyzed combine language teaching and the teaching of subject matter. In most instructional devices and programs for teacher training the language teaching means vocabulary instruction. Few instructional devices and programs for teacher training also pay attention to morphological principles or grammar, most focus on semantics, but not on mechanics. Considering the first theoretical notions about CBA, this was to be expected. Recent studies however underline the importance of a focus on form to bring about a productive language proficiency sufficient for academic purposes.

All instructional devices and programs for teacher training analyzed explicitly state the importance of combining the content of the curriculum and the personal experiences of students. In instructional devices and programs aimed at students in primary education this often means asking students to verbalize personal experiences with the subject taught. One device promotes multiple perspectives on subject matter through offering texts that give different points of view on one and the same subject. Students are also asked to discuss and present their personal experiences regarding subject matter and teachers are stimulated to connect subject matter to the world outside of school, including the personal situation of the students.

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One instructional device aiming at students in secondary education states that teachers need to supply new words in different contexts, need to state explicitly the relations between concepts, need to give different meanings of a word, and need to verify whether students are familiar with knowledge that is presupposed in textbooks.

The instructional devices for adult education are aimed at language proficiency required at the workplace. All language goals are related to the work situation and all texts and audio tapes come from real life work situations.

In programs for schooling teachers in the content based approach, it is stated that new information should be linked to information already familiar to the students or to personal experiences of students.

Quality of input

Many of the instructional devices and programs for teacher training analyzed present heuristics for adapting spoken or written texts to the language proficiency levels of the students. In primary education this means often explaining unknown words and modeling during instruction. Also in secondary and adult education explaining difficult words is suggested as well as the use of visual representations of a concept. One instructional device for secondary education underlines the importance of differentiation - forming groups of students of similar proficiency - and the need for stimulating students to ask questions whenever they have problems understanding what is communicated during instructions.

Also in programs for teacher training adapting spoken texts to the language proficiency of students is mentioned. Teachers are suggested to screen the typical language use of the subject they teach for difficult vocabulary, syntax, lines of argumentation, and presupposed prior knowledge. Also teachers are recommended to use the daily speech of students as a starting point and to give much contextual information, for instance through visual aids.

To make written texts more comprehensible, for primary education many of the instructional devices and programs for teacher training suggest explaining the meaning of vocabulary, for instance by means of visuals. Also for secondary education instructional devices and programs for teacher training suggest facilitating comprehension of texts, again mainly concentrating on vocabulary, in one of the instructional devices by means of an electronic dictionary and interactive software. One instructional device promotes conferences between teachers of language and teachers of other subjects, in order to earmark difficult words and phrases in textbooks. Some instructional devices suggest screening texts for difficult passages.

In instructional devices for adult education text comprehension is not facilitated, but texts are used that come from real life situations on the shop floor. Since students are supposed to reach a level of language proficiency sufficient for understanding these texts, texts are not simplified, although meanings of difficult words and phrases are clarified.

In programs for teacher training more attention is given to dealing with technical language. It is pointed out that presenting several texts with different points of view on one subject facilitates inferring word meanings from text.

In the program for teacher training aimed at secondary education, teachers are warned not to lower standards on cognitive demands, since this would make lessons less interesting, and would lead to reproducing course content rather than understanding it. The teacher training program for primary education recommends teachers to analyze texts before presenting them to students, in order to mark difficult passages beforehand. This program also suggests offering context, relating course content to personal experiences of students, familiarize students with difficult words and syntax and speech acts that appear frequently in the texts used, and to clarify phenomena and processes dealt with in the texts.

In instructional devices for primary education some attention is given to linguistical features causing problems in the understanding of texts. Features treated are interrogative words, function words and the anaphoric use of words. Teachers are not stimulated to analyze texts used in order to mark potential difficulties.

The instructional device 'Wisbaak' (a CBA mathematics instructional device for secondary education) contains diagnostic vocabulary tests to verify whether students are familiar with the vocabulary used. Syntax however is not included. An instructional device for secondary education aimed at newly arrived immigrants suggests language teachers to analyze texts to determine which phrases or words are too difficult for the students and need to be clarified.

The instructional devices for adult education use authentic language samples from the shop floor. Next to idiom registers are clarified (how to say things in different situations, formality of the response, degree of politeness etc.).

The program for teacher training in secondary education show examples of texts and fragments potentially problematic for L2-students. Included are problems in semantics, mechanics, language use, problems concerning conventions and language functions, etc. The training program for primary education teachers mainly focus on problems concerning vocabulary.

In educational devices for adult education different speech registers are explained,
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in primary education devices the use of dictionaries and encyclopedias is promoted, and devices for secondary education pay attention to the training of finding solutions independently, reading comprehension strategies, argumentation, explaining ones point, describing, etc. Only one instructional device for primary education includes speech acts (De grote reis).

In programs for teacher training reading comprehension strategies and speech acts do not get much attention. In the program for secondary education reading strategies like skimming, predicting, and identifying and describing central concepts come up. The program for primary education advocates the reading strategy identifying old and new information. Teachers are also told to make students apply what hey have learnt by assignments making them discuss the subject including defending ones ideas.

Output

Instructional devices for primary education do not give much attention to language production, except for 'De grote reis', in which written assignments and presentations come up. In devices for secondary education also written assignments and presentations are suggested, except in devices for newly arrived immigrants. In devices for adult education presented assignments for speaking and writing skills are specifically tailored to the demands of the shop floor.

In teacher training programs the importance of speaking and writing assignments is mentioned, but production is not emphasized.

Pushed output does not get much attention in the devices studied, except for one primary education device (De grote reis). This device states teachers should offer students unsolved problems, thus forcing them to find a solution themselves. Teachers are warned not to give too many clues and instructions, so that students get the opportunity to find their own solution. Also it is recommended to dispute students' answers in order to train them in defending their points of view. This device also stresses the importance of challenging tasks for students. Students' reading comprehension is monitored to present students texts of appropriate complexity.

The teacher program for secondary education states that lowering of language complexity of the curriculum should not lead to lowering of cognitive complexity.

Focus on form

Feedback does not get much attention in the educational devices and teacher programs. Devices in primary education do not mention feedback often, and never

feedback on form. Devices for secondary education do mention feedback, especially in evaluation of learning goals and revising written assignments and texts. Mechanics and grammar are not mentioned.

Only one of the two devices for adult education mentions feedback, but does not enter at length into the subject. The two teacher training programs do mention feedback, but only the program for secondary education indicates feedback on form is necessary.

Interaction

Stimulating interaction between students is absent in some devices and elaborated upon in others. The incidence of this aspect is not linked to type of education. Some devices focus on individual work. In computer assisted devices interaction between students is harder to realize. In some devices interaction is prominent, not in devices for adult education however.

Both teacher training programs mention the importance of interaction and present ways to stimulate students to interact during assignments.

Cooperative learning is emphasized in devices for primary education, especially in De grote reis. In this device texts are studied in heterogeneous groups in which students present information to each other and ask each other questions. An explicit goal is that students see each other as sources of information.

Also in devices for secondary education cooperative learning is emphasized, for instance by having students work in pairs, while regularly changing roles, and by giving challenging assignments that require decisions in consultation.

In the adult education devices cooperative learning is not prominent. One device does not pay attention to cooperative learning, the other only incidentally.

In teacher training programs cooperative learning is recommended and several ways of doing so are presented.

Conclusion

Of all aspects of CBA included in this study, the two getting the least attention in the educational devices and teacher training programs are 'pushed output' and 'focus on form'. The only device paying attention to all aspects is 'De grote reis'. Also both teacher training programs include all aspects. At first sight this device and both teacher training programs could be seen as potentially most effective. However, such judgment might be unfair. 'Kwint' and 'Wisbaak' for instance aim

primarily at 'realistic mathematic skills', and not at language proficiency. Also the quality of the treatment of CBA-aspects in educational devices and teacher training programs is not evaluated. Next, probably not all aspects are equally important for all types of education. Devices for adult education for instance only focus on aspects of language proficiency needed on the shop floor. Also, it is unclear whether teachers using a specific device will act as intended in the device.

De integratie van taal- en vakonderwijs