OVERVIEW:
THE FUNCTIONS OF ZARB

Here you can see all Zarb functions in order of appearance in the menus and toolbars. Double-click the green entries to move to the corresponding chapter within this document.

Menu and Toolbar Zarb 1	Menu and Toolbar Zarb 2
General gap functions	**Puzzle functions**
Letters	Crosswords
Letter groups	Crisscross puzzle
Word beginning / word end	Wordsearch puzzle
Word construction	Acrostic
Cloze text	Change puzzle size
Gaps	Hidden-letter fonts
Gaps - solutions added	Cryptogram
Gaps from list	Every second letter
Gaps - inner letters	**Rearrangement Functions**
Gaps - punctuation	Word backwards
Alter gap form	Word backwards with gap
Language-specific functions	Word backwards without gap
Basic vocabulary	Text backwards
Infinitives	Anagram
Gaps - parts of speech	Scramble word with gap
English irregular Verbs	Scramble word without gap
Dutch irregular verbs	Scramble inner letters
German irregular verbs	Scramble sentence
Conjugate German verbs	Scramble text
Antonyms	Word chain
Synonyms	Mistake text
Thesaurus analysis	Capitals only
Help Functions	Lower-case only
Generate / edit word list	Fun formats
Check against word list	**Diverse Exercises**
Word frequency	Word form exercise
Character-set tables	Matching exercise
Insert header	Multiple choice
Paste text from the web	**Flash cards**
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	Zarb manual
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WORKING WITH ZARB

INTRODUCTION

Zarb is an add-in to Microsoft's word processing program "Word". **Zarb 4.1** is suitable for use with Word for Windows 2000 (9.0) and later as well as with Word for Macintosh X and later. If necessary, Zarb is adapted to new versions of Word shortly after introduction. Our customers can purchase these upgrades for a small cost as long as the upgrade does not involve a completely new version (indicated by the first digit of the version number).

Zarb is useful for a variety of school formats and subjects. Thousands of creative teachers at elementary and special education schools, therapeutic institutions, secondary schools, high schools, trade schools, adult education centers, continuing education schools and universities as well as textbook authors throughout the world rely on Zarb every day. The percentage of users outside Germany is well over 30%. But no matter where in the world Zarb is used, the typical Zarb user, or "Zarbista", approaches his or her work with a special amount of professional enthusiasm and takes joy in creating his or her own exercises and tests.

Each of the above-mentioned user groups is therefore too small in itself to make it economically feasible to develop a product especially for them. I often hear the question of whether Zarb could not be much lower priced if we just left off one or another group of macros that are not useful to many of the users. Believe me – the exact opposite is the case! However, you can customize the toolbars and menus so they better meet your personal needs.

Those of you who are familiar with "Word for Windows" or "Word for Macintosh" will soon navigate easily through **Zarb**. The following remarks are designed to shorten the learning curve by explaining some of the inner logic of the functions.

Newcomers to MS Word or those who have never worked with a word processing program will presumably need more time to master the complexity of Word before they can eventually enjoy the labor-saving benefits of **Zarb**. Unfortunately, that is unavoidable. Unless you truly enjoy figuring out challenges on your own, I strongly recommend taking one (or several) course(s) that will introduce you to the features of Word. Although it should be an important priority for educational institutions, there are still only a small number of teacher-specific training programs in this field. This is all the more puzzling considering the importance for a teacher of having at least a fundamental knowledge of modern word processing if he or she wishes to avoid unnecessary frustration. The information in this manual assumes a certain level of basic knowledge because it would exceed the purpose of this documentation to attempt to introduce the user to MS Word. Nevertheless, please do not hesitate to ask for advice if you find yourself in a jam! Send me a letter, email, or fax! I'd be glad to offer my assistance. You can find my address in the **Zarb 2** menu under the item **About Zarb** as well as at the end of this manual. Further information is available on our product website www.zarb.de.

Refer to the "Zarb41Overview.doc" file for a very useful overview of all Zarb functions including short descriptions and images of the buttons in the Zarb toolbars. You can find this file in the Zarb program files directory on your hard drive. I strongly recommend printing this file and placing it somewhere in your workspace where you can access it quickly. The information contained in this file will greatly simplify and accelerate the learning period and continue to be a valuable aid as you become more efficient.

NOTES ON THE TERMINOLOGY IN HIS MANUAL

The following notes are relevant mostly for users of the most recent version of Word – **Word 2007**.

- **Differentiation between Word 2007 and previous versions of Word:** In the most recent version of Word – Word 2007 – the user interface has radically changed, and even underneath the surface there have been made important changes. Zarb 4.1 has been adjusted in many details to work with Word 2007 as seamlessly as with previous versions of Word. The text of this manual addresses the Word versions prior to Word 2007 as

the norm, because they are most widely used and equivalently structured, while differing remarks on Word 2007 are often added in parentheses and introduced with "**Word 2007:**" in bold font. The functionality of Zarb, of course, is the same throughout all Word versions.

- **Naming of the document templates:** Word 2007 introduced new file format extensions, such as ".docx" for normal Word documents, instead of the old ".doc" extension. Since Zarb works with Word document templates, those are included in both the old ".dot" format, and the new ".dotm" format. Whenever in this manual we refer to the actual Zarb template file, we write the file name as "Zarb41.dot[m]" to denote both the template which is used by Word 2007, and the template which is used by previous Word versions.

CREATING ZARB DOCUMENTS

In order to work with the Zarb functions, the Zarb document template must be attached to your working document. You can open a new, empty Zarb document simply by clicking on the Zarb program icon on your desktop or on the "New Zarb Document" button in Word.

You can also create a new Zarb document by means of the standard **File**, **New** menu selection. Choose "Zarb41.dot" (or "Zarb41") from the dialog box that appears.

If you want to subsequently attach the Zarb template to an existing document, go into the **Tools** menu, select **Templates and Add-Ins** and then **Attach**. From the list of templates choose "Zarb41.dot" or simply "Zarb41" and then click **OK**. Depending on your version of Word, the **Zarb** toolbars may not be displayed automatically. From the **View** menu choose **Toolbars**, and then place checks next to the toolbars you want displayed.

Word 2007: The above information does *not apply* to Word 2007. In Word 2007 it is not necessary for the Zarb template to be attached to a document in order to provide all the Zarb buttons. Instead a tab named "Zarb" is integrated into the Word 2007 ribbon architecture, so that the Zarb functions are always available for any document. The Zarb tab also renders the old "New Zarb document" function superfluous, it is therefore omitted in Word 2007. Zarb documents, which have been created with previous versions of our software (so that they have an older Zarb template permanently attached to it), are updated automatically, when opened in Word 2007.

ZARB MENUS AND TOOLBARS

While Zarb documents are open, you are automatically provided with two additional menus and toolbars with the names **Zarb 1** and **Zarb 2**. Whenever you set up a new Zarb document for the first time, both toolbars will appear at once. In order to save space, you can hide one of them by clicking either **Switch to Zarb 1** or **Switch to Zarb 2** respectively. With the exception of the first button, the arrangement of macros in the **Zarb 1** and **Zarb 2** menus corresponds to the appearance in the tabular overview of functions at the beginning of this documentation and to the order in the **Zarb** toolbars.

Word 2007: Users of this version of Word will find the Zarb menus and toolbars on the ribbon on a new tab named **Zarb**. **Zarb 1** in this manual denotes the first or upper row of symbols, **Zarb 2** the second row beneath. The buttons **Switch to Zarb 1/2** are not needed and therefore omitted from the Word 2007 Zarb tab.

When you use the arrow keys to move the highlighted horizontal bar up and down on the menus, the **status bar** will display brief descriptions about each macro. These brief descriptions are almost identical with the descriptions given in **Zarb41Overview.doc**. In agreement with the general convention on the creation of menu entries, the name of a macro is followed by three dots if the user will be required to enter any information before running the macro.

SELECTING

Whenever you wish to move or alter a text or elements thereof (letters, words, sentences), you must first select that text or element before running the respective macro. To **select** a text or text element, hold down the **left mouse button** and drag the mouse over the text you want to select. Click once on the so-called (invisible)

selection bar to the left of a line to select the entire line. Alternatively, hold down **Shift** while using the arrow keys to highlight the required text. The easiest way to select a single word is to double click anywhere on the word. In Word 2002 (XP) and later versions, it is even possible to simultaneously mark text segments that are not next to each other. This feature is very useful when you wish to format in bold a number of target words to be used as a starting point for a text with gaps. In addition to these, there are several other selection methods. Please refer to the online help (**F1** key or the "**?**" menu) or your Word user's manual for more information. (If you are an inexperienced user of Word, you may wish to investigate the various ways of selecting text described in the online help. It may even be useful to print the respective chapters and practice both ways of selecting text: with the mouse and with the keyboard. Also consider practicing ways to move text!) Zarb will notify you if you attempt to execute a macro without first selecting any text.

Some of the macros do not require prior selection of text because they insert entirely new exercise sections and therefore rely on other sources. In these cases, the item(s) will be inserted at the cursor position.

If a text area is selected, the macro result will either replace the selection or be inserted below it. If the original selection is replaced, it's content is copied to the clipboard before the macro result is inserted. To delete an unsatisfactory macro result and restore the original text area, mark the result and **Paste** the contents of the clipboard (**Edit**, **Paste; Word 2007: Home / Paste**) on top of that marked section.

Note: The built-in **Undo** function will not work for the results of many of the macros in this package, or at least not in the way you would expect, i.e. in one single step. Therefore, whenever you execute a macro, review the result immediately (while the original text is still available in the clipboard). As is common, you should **always** work with a copy of your original text while keeping the original text stored in a secure location.

LANGUAGES AND LOCALIZATIONS

To a large degree, **Zarb** is an "international" product and is used by fellow teachers in more than 30 countries throughout the world.

Zarb has been released in a variety of languages. In most cases, however, that has no effect on the issues discussed here. In other words, if something works well with the German version of Zarb, then it will work equally well with the Dutch or English versions, regardless of the language used in the document.

This section concerning "Languages" is directed at teachers who use Zarb for exercises and worksheets in a foreign language or who use a non-German language operating system or non-German language version of Microsoft Word. I will refer to the language of the exercise texts as the "instruction language". Consider the following to gain an idea of the possible language combinations: A Zarb user may work in a university in Kirgizstan; his computer may have a Russian operating system, but he may have an English-language version of Word. He uses an English-language version of **Zarb** to create exercises for "German as a foreign language".

Please be aware that I cannot completely guarantee the validity of the following statements. Although I have tested many different combinations, complete tests with all possible language combinations of operating systems, Word versions, and instruction languages exceed the abilities of even much larger companies. If you experience problems, please contact me and provide as much accurate information as possible about your operating system and version of Word as well as information about your Word documents or screenshots with examples for errors you have encountered. I am always very interested to learn about any problems that arise and will attempt to resolve those problems. If it is not possible to resolve your problem within a reasonable time and your use of the program is severely limited, we will not hesitate to take the product back.

Using Various Instruction Languages

If you are using Windows 98 (or newer) and Word 2000 (or newer), you will be able to use all western European instruction languages and their American variations. For most eastern European languages that use the Latin alphabet and for Turkish, Greek, and Russian, all Zarb macros will be available with the exception of **hidden-letter font**. Unfortunately, we have not yet been able to adapt the Zarb puzzle fonts to the Unicode standard and this is the reason why the macro **hidden-letter font** must be excepted to fail.

All limitations with regards to the possible instruction languages are explicitly defined in the individual descriptions of the macros.

Macintosh: Only west European instruction languages or their American versions.

Compatibility With Non-German Systems or Word Versions

Windows: It should be possible to use **Zarb 4.1** internationally on all localized versions of Microsoft Windows 98 and later. Assuming that you are using at least Word 2000 and one of the above-mentioned instruction languages, you should not experience any serious difficulties.

Macintosh: Compatible with all localized versions in western European languages or their American variations as long as you have installed at least Microsoft Word X for Macintosh.

REVISED SPELLING IN GERMANY, SPELLING IN SWITZERLAND

The revised rules of German orthography affect a few source files. There are two different source files for German irregular verbs – one according to the previous spelling rules and one according to the new rules. You may choose which one to use. The source files for the macros **Gaps - parts of speech (German)** and **Infinitives (German)** include both sets of rules so you can find words written according to either sets of rules and replace those words with gaps if desired. In all cases, this applies only to the problem associated with "ß" or "ss".

Switzerland: Since Zarb is used internationally and Swiss writing conventions never use the "ß" letter, the source file for **Gaps - parts of speech (German)** includes all words with both "ß" and "ss" variations.The source files for German irregular verbs and infinitives, that are used in the macros **Infinitives (German)**, **Conjugate German verbs**, and **German irregular verbs**, are available in both German and Swiss spelling. The correct file is used according to your system language setting or you will be asked which file to use.

FRAMES

When executing some of the macros, the result of the macro will be enclosed in a frame after you select the respective options. Those experienced with later versions of Word may wonder why we use frames instead of the more recently introduced text boxes. Our reason for this choice lies in our desire to make Zarb compatible with all versions of Word since version 6.0. The most recent versions of Word continue to support frames but the earlier versions do not support text boxes. The disadvantage of frames is that they can be properly displayed and edited only in the Page Layout view.

After starting, all **Zarb** macros switch automatically to the Normal view. This is necessary in order to preserve the uniform functionality of the macros. Please do not allow this to bother you. But always switch to the Page Layout view to perform the final placement of exercises that are contained in frames! It will be necessary to switch to this view in order to edit frames in any manner at all.

The frames are formatted by default to allow surrounding text. You can change this or any other formatting options by switching to the Page Layout view, clicking on the frame, and then selecting the **Format Frame** entry from the **Format** menu. Even the context menu, which you reach by right-clicking on the frame (Macintosh: **Ctrl + click**) will offer this entry (**Word 2007:** the formatting option remains available only from the context menu).

It takes a little practice to use frames effectively, but you will find the effort worthwhile. Don't give up right away! If, despite your best effort, you find yourself losing patience, take a break and try again later.

CONFIRMATION REQUESTS BEFORE REPLACING TEXT WITH GAPS

When executing the language-specific macros (used to choose certain parts of speech to replace with gaps) you will be asked to confirm each of the words that the program finds before it is replaced with a gap. This is necessary because many words can belong to several categories ("parts of speech") and only the user can determine the proper category in the context. The word under review is then selected and also appears in the title bar of the confirmation window. These same confirmation requests will appear when running the macros **Gaps from list** and **Letter groups**.

ABORTING MACROS

In the case of errors during the execution of a macro, **dialog boxes** will bring the errors to your attention or you will be asked to make certain entries or choose between several options. If a relatively long period of time passes with no activity, check the **status bar** (bottom line of your screen). During extended procedures, this line will contain status information or will display the progress of the current task in one of several different forms. If during the execution of a macro all activity appears to halt (usually with the mouse pointer in the form of an hourglass), first check whether any other programs are running in the background because these may reduce the operational speed. For instance, printing preparations often require an extended period of time. In case of emergency - but only then! - abort the current macro by pressing **Ctrl+Break** (Windows), or **Command+Period** (Macintosh). Such an abortion, however, might leave unwanted partial results or bookmarks that some macros initially create and automatically erase after successful execution. Unfortunately, it is not possible to program safeguards against these residual results. Please remove these items manually. Always remember: it may take some time to complete a task!

NOTES ON FORMATTING

Macros do not usually affect the character formatting of your text. However, the gap functions and a few other functions (**Scrambled Word**, **Wordchain**) increase character spacing . This provides a better layout on your worksheets. In particular, the underscores that form a gap remain separated from each other and the individual letters of scrambled words are more easily recognized. In some cases, like **Anagrams**, **Word Backwards**, the **Puzzles**, and **Principle Verb Form** exercises, I resorted to a larger font size and other changes I thought would be beneficial. Of course you are free to change the font style, font size, and other formatting features before printing your document.

During data entry and editing, I strongly recommend using one of Word's standard fonts (e.g. Times New Roman or Arial in Winword; Times, Arial, or Helvetica in Macword). Then, as a final step before printing, you may change the format (font type and size) to meet your creative needs. I recommend this practice for two reasons:

Many fonts available on the market do not comply with the ANSI standard and/or omit parts of the character set that appear to be superfluous. Although there may be good reasons for doing this (e.g. fonts used in primary schools to simulate handwriting often require several variants of the same letter to enable an uninterrupted flow of the typeface), such fonts almost always lead to problems during execution of Zarb macros. As a rule, a follow-up formatting that involves one of the so-called "impure" fonts as described above is a simple way to avoid these potential problems.

Occasionally Word will experience difficulties displaying and/or printing certain characters even when the macro has completed successfully. For instance, tests with a certain font used in primary schools revealed that Word will not display the underscores in some font sizes and will not print other sizes even though these underscores are actually present in the document. Although it may be somewhat unsatisfying, you may find it most practical to select a few font sizes that work well on your screen and printer and revert to these sizes when using a problematic font type during reformatting. In such a case it comes down to a matter of trial and error.

Warning: Exercise care with extensive formats like those generated in the **Fun Layout** and **Wordchain** macros! Try not to use too many of these formats in a single worksheet and always save your work regularly! All versions of Word, even the latest versions, tend to react to extensive formatting with the error message "Insufficient memory" and sometimes additional unpleasant results.

TYPOGRAPHIC QUOTATION MARKS AND APOSTROPHES

In the **Tools**, **AutoCorrect...** (**Word 2007: Word Options / Proofing / AutoCorrect Options**) dialog box, you will find the option **Change "Straight Quotes" to "Smart Quotes"**. However, keep this option deactivated for the following reasons: First, different languages employ different types of typographical quotation marks, but not all versions of Word are able to set the correct ones. Second, all versions of Word falsely replace the apostrophe with a single quotation mark.

So to achieve a consistent behavior for all Word versions and languages, the only sensible compromise is to use straight quotation marks throughout. Nevertheless, all Zarb macros will also handle the "real" quotation marks properly.

FAST SAVES AND AUTOMATIC SAVING, MASTER DOCUMENT

Today, almost all complex software has some hidden weaknesses. So before we start with the actual Zarb functions, let me inform you of two well-known major flaws in Word itself.

In all versions of Word, the activation of "Fast Saves" and "Automatic Saving Every ... Minutes", on the Save tab under Tools, Options, has been proven the major reason for damaged or unnecessarily large Word documents. You can avoid these problems by deactivating those check boxes. In any case, it is wise to start the habit of regularly saving your work manually.

Word 2007: This option is no longer available in Word 2007.

DESCRIPTION OF THE INDIVIDUAL FUNCTIONS (MACROS)

LETTERS

Zarb 1 menu and toolbar.

This macro removes various letters from a selected text and simultaneously replaces them with underscores. You have the following options:

- All vowels (except "Y/y")
- All consonants (except "Y/y")
- Check box: Include "Y/y"
- Any number of letters you choose to enter. The request to separate the entered letters with spaces is only intended to give you a better view of the letters and does not affect the functionality.

Due to its double role as both a vowel and a consonant, the letter "y" was excepted from the options "all vowels" and "all consonants". You must therefore treat with special care any words that contain the letter "y" or employ a special macro run or the **Edit, Replace** (**Word 2007: Home / Replace**) function to remove all instances of "y" from your text, keeping in mind the purpose of your exercise. Compared to the standard **Edit, Replace** (**Word 2007: Home / Replace**) command, this macro has the advantage of being able to deal with several letters in a single pass. However, the macro cannot differentiate between capital and lower-case letters.

For Windows: For the third option, if you want to use special foreign characters in the replace procedure, proceed as follows: hold down the **Alt** key and use the numeric keypad to type the respective character's ANSI code number. This will always be the number 0 followed by a three-digit number up to 256. (You can find the required code number with the help of the **Character-Set Tables** macro, which loads available character sets and displays them in table form.)

Use the following **Letter Groups** macro to create so-called contrastive exercises such as a completion exercise that tests the student's ability to distinguish between the use of "i" or "ie" in German or similar cases with single or double vowels, vowels that must be followed by an "h", etc. Also be aware that some language teachers perceive these types of exercises to be problematic.

LETTER GROUPS

Zarb 1 menu and toolbar.

This macro searches a selected block of text and replaces with underscores either

- Vowel groups
- Double consonants
- or any other groups of letters or letters that you have entered in the text field.

In addition, it is possible to choose the position of user-defined letter groups in the word. For this you have the following options:

- Anywhere (default)
- Word beginning
- Word center
- Word end

For instance, if you choose the "Word beginning" option, Zarb will replace the specified letter groups only if they are at the beginning of a word. This option, new to Zarb 3.0, makes it easier to create grammatical exercises based on certain word endings or prefixes.

Unlike the preceding macro, you **must** separate the individual letter groups with a blank space or another separating character if you have chosen the third option. This macro also works with individual letters. Unlike other functions, the number of underscores, i.e. the size of the gaps, does not correspond to the number of letters removed. Instead, the number of underscores corresponds uniformly to the longest group of letters you specify. As a result, completion exercises of the type "i" or "ie" (for German) or similar ones (single or double vowel, long vowels with or without an "h", etc.) have the advantage that the learners cannot guess the correct solution by the length of the gap.

One more warning: If you apply this macro to normal text instead of word collections selected specifically for the task, then you will have to review the gaps to make sure that they make sense for the exercise. Take for example the German words "Eier" and "Beispiel" in an exercise based on the vowel combinations "ie or i". The result of the macro would be "Be__sp__l" and "E__r", respectively. Considering the purpose of the exercise, I do not believe that this would be a sensible way to test the students.

You can review every found letter group before its replacement by activating the check box

- Confirm every replacement

You will then be asked for every found letter group if you want to replace it with gaps or not.

Again, I feel compelled to mention that some language teachers express reservations about the use of contrastive exercises of this type.

WORD BEGINNING - WORD END

Zarb 1 menu and toolbar.

This macro moves through a selected text region and replaces the first or last one to three letters of each word with gaps (underscores). If you activate the **Reverse Effect** option, this function will instead replace with gaps all the letters of each word except the first or last one to three letters.

Word Beginning – Word End is an effective tool for preparing exercises based on rules of capitalization (replace the first letter of a word with a gap), dictation preparation, or spelling exercises of all types. When completing these exercises, the students are given a certain amount of help or means of checking their work because they can see the exact number of letters that have been removed from the words.

You can also use this to create text reproduction exercises. These exercises will be similar to those described under Gaps, but with a lower level of difficulty. To do this, you can preserve the first one or two letters of each word and replace all other letters with gaps (use option **Reverse Effect**). By controlling the number of letters provided as clues and the position of those letters at the beginning or end of the word, you can effectively control the level of difficulty.

WORD CONSTRUCTION

Zarb 1 menu and toolbar.

Word Construction generates exercises that encourage students to employ a systematic approach to spelling difficult words. The following example offers a better demonstration than extensive explanations:

The word "brought" is difficult to spell.

```
b r o u g h t
b r o u g h _
b r o u g _ _
b r o u _ _ _
b r o _ _ _ _
b r _ _ _ _ _
b _ _ _ _ _ _
_ _ _ _ _ _ _
```

The macro lets you choose between different variations: Word construction or word breakdown – starting either from the beginning or the end of the word. The selection dialog displays the results to enable better orientation. To obtain uniform character spacing as shown in the above example, use the font "Courier New".

This function is intended to modify words that stand alone on one line. However, you can also select the target word directly in a larger text. The exercise will then appear automatically below the paragraph that contains the selected word. If your selection contains several words, only the first word in the selected text will be used to create the exercise.

Note: If you wish to place several of these exercises next to each other on a worksheet (to save space), I recommend first inserting a table on the page and then placing (with copy and paste) each of the finished exercises in its own table cell. An alternative to this would be to individually place each exercise in a frame or text box so it is easier to arrange them next to each other. The advantage of using frames and text boxes is that they are somewhat more flexible. On the other hand, they are much more difficult to handle than tables.

CLOZE TEXT

Zarb 1 menu and toolbar.

Cloze Text automatically transforms a selected block of text into a text with gaps or a text with scrambled words. You have the following options when working with this function:

- Maximum number of replacements
- Distribution of the replacements (how many words between each replacement)
- Type of replacments:
  - Half the word as a gap
  - The entire word as a gap
  - Scrambled word with gap
  - Scrambled word without gap

The resulting number of replacements will be indicated at the end of the text. If you choose, the solutions will be displayed below that. As always, the solutions can be shown in randomly mixed order, in the original order, or both ways.

The macro will only process words that consist of more than two letters. Therefore, if you want to replace half of every other word with a gap and the second word is "he", the Cloze Text function would jump over this word and continue scanning the words until it finds one with more than two letters. The counting (to find every other word) starts again after a valid word has been found.

The first type of replacement (half of the word as a gap) will replace the letters in the second half of the word with underscores. If a word has an uneven number of letters, the middle letter will also be replaced.

"Scrambled words" simply means that the letters of a given word will be rearranged in random order. The "Scrambled word with gap" function places the scrambled word in brackets and provides a suitable gap where the student will insert the solution. In the case of the other scramble options, you will not notice anything unusual at first glance. The scrambled words look like the other words, except ... they're scrambled, of course! Your students

must find them on their own. Of course, both versions of scrambling are more suitable for creating a game-like activity than for testing.

If the text is long enough, the specified number of words (by experience: twenty is a good total) will be replaced. If the text is too short but you still want to have a sufficient number of highest possible scores for grading purposes, you must retrieve a copy of the originally selected area from the clipboard, add sufficient text and re-run the macro. The text should start and conclude with a complete sentence or phrase.

It is common to combine four or five such brief texts (e.g. 20 gaps each) with progressive levels of difficulty in order to create one test of 20-30 minutes. Without a computer, the creation of a suitable and meaningful C-test would take a long period of time and effort. Many activities are involved from the first draft to the final result: counting the words, deciding the length of the gap, typing, correcting etc. Even a short text may easily take up 1- 2 hours. On the other hand, such tests have proven to be extremely helpful, especially for placement purposes (which students belong in which courses? - a purely quantitative evaluation) and for rapid language level analysis (what does he/she know? Not know?). I really hope that you will find this macro useful because starting now, we will be concerned only with the creative side: with the creation of a text draft. You don't need much time to create a quick new test or a fun exercise because you can easily resort to existing material and very quickly generate a very nice assignment for your students.

GAPS

Zarb 1 menu and toolbar.

This tool enables partially automated generation of texts with gaps. (see also: **Gaps - solutions added**). You decide where you want gaps and the macro takes care of it for you. Simply **double-click** on the word of your choice, and then press the button **G** in the toolbar or click the **Gaps** entry in the **Zarb 1** menu.

This macro will work not only with entire words, but also with any parts of a word or text regions that you have selected. Exactly one underscore will be inserted for every letter and these underscores will be properly formatted so your students can easily distinguish each individual underscore. Numbers will also be replaced.

I have used this macro many times for a different type of exercise as well: text reproduction. To do this, I leave unchanged the title and maybe the first sentence of the text. I select the rest of the text. Result: one big gap! Every letter is replaced by a single underscore while spaces and marks of punctuation remain unchanged. Presented on an overhead transparency to the whole class or on photocopies to small groups, this makes a cheerful and lively exercise. As a rule, the learners should be familiar with the text (having read or heard it). But even if they are not, the exercise is well suited to group exercises dealing with key word information. In most cases, every student is able to contribute something, even if they recognize only one article. So far, I have had only good experiences with these types of exercises.

GAPS – SOLUTIONS ADDED

Zarb 1 menu and toolbar.

This macro searches for bold-type words in blocks of selected text, replaces them with gaps (spaced underscore characters matching the number of letters), and gives you the opportunity of attaching the solutions to the bottom of the text in random order, the original order of appearance, or both. Numbers in bold format will be processed in the same manner as letters.

So take your time when choosing the target words. When you find them, simply apply bold formatting. After you have formatted all target words in bold, select the entire text or text section and then start the macro. If you chose the respective option, the solution words will be placed at the end of the selected text region.

You can apply this function not only to complete words but also to parts of words (such as grammatical endings) or to closed word groups, thereby converting these selections to gaps as described above. For this reason, it is important that you clearly distinguish between successive individual words and word groups when applying bold formatting to the target areas. In other words: if you apply bold formatting to two or more successive words at the same time (place the words in a single selection), they will be treated as a closed word group, not individual words. If there are two words next to each other and you wish to treat those words as two individual words (not a group of words), you must apply the bold formatting to each of those words individually.

This is easily accomplished by double clicking on the target word or simply placing the cursor anywhere in the word. Then apply the keyboard shortcut **Ctrl + B** (**hold down Ctrl** and type **B**). On the Macintosh, use the key combination **Apple + Shift + B**. These keyboard shortcuts may be different for versions of Word localized for other countries.

Bold formatting works even faster if you place the cursor into an already bold word and then double-click on "Paste format" (brush symbol). A brush appears next to the cursor. Now a single click on any word suffices to apply bold formatting to it. Parts or groups of words can be bold formatted by selecting it with the mouse. Abort the format pasting by single clicking on the brush symbol in your Word menu or pressing the **ESC** key.

GAPS FROM LIST

Zarb 1 menu and toolbar.

All words contained in a checklist will be replaced by gaps where found in the selected text. You can enter the list manually after starting the macro or you can load an existing list from another file (an ordinary Word document). After loading a list from a file, you still have the opportunity to revise the list. If desired, you can save the final word list as a new document. All this is done before processing the text (generating the gaps).

As soon as you press the **Done** button, the function will run through the selected text region and examine each word. When it finds in the selected block of text a word that is also contained in the checklist, it will ask you whether you want to replace that word with a gap. This function is not case sensitive, i.e. it will find all words regardless of whether they are capitalized or not. You can confirm or reject the replacement or cancel the operation.

In any case, you can opt to place the solutions at the bottom of the text in random order, the original order of appearance, or both.

GAPS - INNER LETTERS

Zarb 1 menu and toolbar.

Gaps - inner letters replaces the letters of a selected word or all words in a selected text with gaps, but ignores every first and last letter of a word. The result may look like this (function applied to two words seperately):

B _ _ _ _ n is the capital of G _ _ _ _ _ y.

GAPS - PUNCTUATION

Zarb 1 menu and toolbar.

All punctuation marks in a selected text are replaced with gaps. The gaps in this function differ from those in other gap functions of Zarb: Instead of underscores, which are not quite suitable for the entry of stops or quotation marks, we use square brackets:

[ ]Does your grandmother live far off[ ][ ] said the wolf[ ] [ ]Oh I say[ ][ ] answered Little Red Riding Hood[ ] [ ]she lives beyond that mill you see there[ ] at the first house in the village[ ][ ]

ALTER GAP FORM

Zarb 1 menu and toolbar.

This macro alters the form of previously generated gaps in a selected block of text. You have the option of changing the length of the gaps (number of underscores) as well as the spacing, formatting, and type of gap characters.

For example, you can assign each gap a uniform length (number of underscore characters) because you may not always want your students to guess the solution by counting the number of missing characters. You can choose between 1 and 20 underscores per gap. If you activate the respective control box, you will notice that the default value is 10. In this box you can adjust the length of the gap to the average length of the words replaced by gaps. If you choose to have a uniform gap length, then make sure you also activate the control box located below this section and set the spacing between the gap characters to 0.

As mentioned, you can also alter the spacing to create, for example, one unbroken gap instead of several visible individual spaces or increase the spacing of the individual underscores. This specification is expressed in points with possible values ranging from 0 to 7. If you activate the respective control box, the default setting will be 0 points, which corresponds to a single unbroken line.

The button "Character format..." provides the opportunity to use a different format especially for the underscore characters. In order to keep things simple, Zarb uses for this the standard **Format, Font** (**Word 2007: Home / Font**) dialog box in Word. Some of the changes you may wish to make here include altering the font size, font color, the position and possibly the character spacing. Use the latter, however, only if you want spacing greater than 7 points.

Since the larger font size selected here only increases the width of the individual underscores (without affecting the surrounding text), this option is particularly useful for elementary schools, special education classes, language courses for foreigners, or literacy courses where the students have not yet mastered effective handwriting. But be aware that larger underscores will also increase the total line height because the space reserved for the underscores will become not just wider but also taller. This is may be a positive aspect for students filling in the gaps, but the overall text may suffer somewhat aesthetically. Please also note the following: If you change the spacing here and simultaneously activate the spacing control box in Zarb's original dialog box for this macro, the spacing settings in the original Zarb dialog box will take precedence, i.e. the settings in Word's **Format, Font** (**Word 2007: Home / Font**) dialog box will be disregarded.

With the button "Gap characters..." You can actually select from any character set to represent the gaps. Options include question marks, a smiley face, or anything else you desire. As before, any characters you select here will take precedence over the settings in the **Format, Font** (**Word 2007: Home / Font**) dialog box in Word (see preceding paragraph).

BASIC VOCABULARY

Zarb 1 menu and toolbar.

This function enables you to extract words from arbitrary word lists by specifying criteria, in order to create e.g. writing and reading exercises for younger children, which use only words with certain letters of the alphabet.

Definition by letters. Enter the letters from which the extracted words may be composed. The letters must be seperated by a blank space. They don't have to be in alphabetical order. Example: The entry of "a e b d n s" extracts all words from the standardized German basic vocabulary (which is provided with Zarb), that can be

formed by combining these letters, that is "ab Abend abends an baden dann das dass den denn des eben Ende essen es Nase nass nasse neben nennen Sand See". You can simply delete the words you cannot use for your exercise from the list.

Definition by letters and letter groups. If you wish your pupils to exercise certain letter groups, enter these groups as if they were single letters. This narrows the resulting word list in so far, as it will consist of those words only, that are combined of some or all of the entered letters and letter groups. Example: The entry of "ou ough ow a b c d e f g h i j k l m n o p q r s t u v w x y z" extracts all words from an English text or word list, that contain either *ou* or *ough* or *ow*, which may be useful for pronounciation and orthography exercises.

Optional: Definition by word length. You can also define, if the extracted words should contain a maximum or minimum number of letters, e.g. to rule out especially long or short words. The default setting is a minimum word length of 2 letters, while no maximum word length is specified.

Choosing a source file. Zarb provides a standard German basic vocabulary (the file NsGruWo.txt in the sub-directory "Menzel85" of the Zarb program directory). This is the default source file, but you can specify your own word list by selecting **Use user defined vocabulary** and choosing a file on your hard drive, which contains the word list.

INFINITIVES

Zarb 1 menu and toolbar.

First format all target verbs in bold. Then select the entire text section that contains the bold formatted target verbs and then start the **Infinitives** macro. Choose the language in which the selected text is written. Zarb 4.1 supports eight languages: English, German, French, Dutch, Spanish, Italian, Polish (Zarb for Windows only), and Latin.

The macro automatically jumps to each of the bold formatted words and compares it with an internal list of verbs. In the upper left of the dialog box will appear the current verb in the form as it appears in the text section. Below, in the bottom left of the dialog box, the macro will display the respective infinitive if that verb is contained in the internal word list. Check the infinitive shown to make sure it is correct! If the infinitive is not correct, please make the necessary changes immediately. If necessary, also make the correction in the word list (see instructions below). If the infinitive is not contained in the word list, enter the correct infinitive in the text field provided. Exercise special care when entering new words. They will be saved automatically! After you click on **Continue**, the following will happen: Instead of the current verb form, the respective infinitive will be inserted (enclosed in brackets) into the working document followed by a gap for the original verb form. If the verb form and/or its infinitive was not previously contained in the Zarb verb list, the verb form and/or its infinitive will be saved there.

Please have a look at the following text example in which I have formatted a few target verbs in bold:

*A slave named Androcles once escaped from his master and **fled** to the forest. As he **was** wandering about there he **came** upon a Lion lying down moaning and groaning. At first he turned to flee, but finding that the Lion **did** not pursue him, he turned back and **went** up to him.*

After this text has been processed by the **Infinitives (English)** macro, we have the following:

A slave named Androcles once escaped from his master and _ _ _ _ (flee) to the forest. As he _ _ _ (be) wandering about there he _ _ _ _ (come) upon a Lion lying down moaning and groaning. At first he turned to flee, but finding that the Lion _ _ _ (do) not pursue him, he turned back and _ _ _ _ (go) up to him.

Now have a look at the following complex example in German in which not only the verb forms but also the associated separable prefixes are formatted in bold:

*Der Bus **hielt an** und einige Leute **stiegen aus**. Nachdem die wartenden Passagiere **eingestiegen waren**, **schloss** der Busfahrer die Tür und **fuhr ab**.*

After this text has been processed by the **Infinitives (German)** macro, we have the following:

Der Bus _ _ _ _ _ _ _ (anhalten) und einige Leute _ _ _ _ _ _ _ _ _ _ (aussteigen). Nachdem die wartenden Passagiere _ _ _ _ _ _ _ _ _ _ _ (einsteigen) _ _ _ _ _ (sein), _ _ _ _ _ _ _ (schließen) der Busfahrer die Tür und _ _ _ _ _ _ (abfahren).

If the internal word list contains the verb form and therefore also its infinitive and the next bold formatted word is contained in the list (saved in the same location) of the most common verb prefixes, Zarb will automatically search for the corresponding infinitive or, if it is not yet available in the word list, Zarb will construct it and present it in the respective text field of the dialog box. At the same time, the control box (under the field to the right) for separable verb prefixes will automatically be activated as the next word is presented.

Since the German and the Dutch language permits verbs to form compound words with all parts of speech and since this often occurs spontaneously, it is easily possible that separated verb prefixes may not always be recognized as such. As a result, the internal list of the most common verb prefixes is limited. In practical terms, if the next bold formatted word is a separated verb prefix but the control box has not already been activated automatically, you must activate it yourself so the macro will properly recognize the separated verb prefix.

You may also decide not to consider separated verb prefixes and deactivate the control box. If you do this, though, the bold formatted separable prefix will be declared to be a complete verb. To counteract this, click on the **Skip** button in order to move to the next verb.

Note on Infinitives (English)

This macro does not process contracted verb forms, e.g. "I've", "he's" and "she'll" will not be recognized as "I have", "he is" and "she will" and will not be replaced with gaps. Contractions like "won't", "shan't" and "ain't" will also be ignored.

This is because the technical effort for recognising those forms is large and as far as we know they are not usually exercised (if at all) in the context of *verb forms*.

Note on Infinitives (French)

French verb forms that contain reflexive or demonstrative pronouns in apostrophised form ("m'appelle", "c'est") can be formatted in bold with or without the apostrophised part. In both cases only the verb form will be processed:*Je **m'appelle** Hans* will become *Je m' _ _ _ _ _ _ _ (appeler) Hans.*

Note on the internal word lists

Internal word lists exist for all supported languages: These are normal Word documents named „Verben_d.doc" (German, or „Verben_ds.doc" for Swiss orthography without ‚ß'), „Verben_e.doc" (English), „Verben_f.doc" (French), „Verben_n.doc" (Dutch), „Verben_s.doc" (Spanish), „Verben_i.doc" (Italian), „Verben_p.doc" (Polish, Zarb for Windows only) and „Verben_l.doc" (Latin). After the installation of Zarb on Windows, those files will be located in the Zarb user directory (*Documents and Settings/[your user name]/Application Data/Zarb*); on Macintosh, they can be found in the Zarb program directory. In its original version, the files contain the forms of many strong and irregular verbs as well as of selected weak or regular verbs. For German an Dutch the lists contain only the base forms of all verbs, e.g. the list contains "laden" but not "beladen" nor "einladen", etc. However, the list is designed for expansion. It will save new verb forms as well as any infinitives that you enter, thereby increasing the number of known forms and ultimately increasing the level of automation facilitated by the list.

Furthermore, since the verb lists are normal Word documents, you can also edit them directly. If you enter an infinitive incorrectly without noticing your error and then press the **Continue** button, your error will be saved to the list. In this case, the infinitive will be presented in its incorrect form the next time it arises in a text. To correct this error, first open the respective file "Verben_*x*.doc" and locate the erroneous entry. The easiest way to do this is to use the **Edit**, **Find** function in Word (**Word 2007: Start / Search**). After you have found the faulty entry, you can either correct it directly or delete the entire entry, including the infinitive itself and all of the conjugated verbs forms

located below it. Deleting the entire entry is preferable especially if the infinitive is already present (in its correct spelling) at another location in the file. It is also important to check for this.

GAPS – PARTS OF SPEECH

Zarb 1 menu and toolbar.

Gaps – parts of speech helps you find and replace words that belong to different parts of speech (categories) in eight languages. Remember that many words can belong to several different categories. It is therefore necessary that you confirm each of the words found before replacing it with a gap. It is ultimately your responsibility to decide whether a word belongs to the category you are seeking.

Select an entire text or a block of text and choose the language of the selected text. The following languages are supported:

- English
- German
- French
- Dutch
- Spanish
- Italian
- Polish (Zarb for Windows only)
- Latin

Words suitable for replacement with gaps are found by comparing each word in the selected text with pre-prepared word lists. If you are not completely satisfied with these word lists, you can revise them. To revise the lists, always follow the instructions provided in the respective files, which you can find in the Zarb program folder:

- for English: Listene.doc
- for German: Listend.doc
- for French: Listenf.doc
- for Dutch: Listennl.doc
- for Spanish: Listenes.doc
- for Italian: Listeni.doc
- for Polish: Listenp.doc (Zarb for Windows only)
- for Latin: Listenl.doc

Finally you can choose to attach the solutions to the bottom of the text in random order, the original order of appearance, or both.

Note on the dialog for German parts of speech

The "noun" part of speech is not found by means of a word list. Instead, Zarb simply looks for all words that start with a capital letter. You must decide for yourself whether the word at the beginning of the sentence is a noun.

The "nouns" option is a good way to create a list of nouns in a text. Simply take the solution words and use them as a word list for a puzzle, for example.

ENGLISH IRREGULAR VERBS

Zarb 1 menu and toolbar.

English Irregurlar Verbs generates exercises based on the principle forms of the English irregular verbs.

Place the cursor at the position in the document where you want the exercise to begin. This position should be the beginning of an empty line. An alternative to this would be to enter and select directly in the working document the irregular verbs on which you want to base the exercise. Do this before starting the macro. However, your selection should contain only infinitives or one of the forms Simple past, or past participle.

The source files for the principle forms are called **Irrverbs.doc** and **Irrverb2.doc** and can be found in the Zarb program folder on your hard drive. The first file contains the verbs in alphabetical order, the latter file arranges the verbs according to the frequency of their usage, compiled from latest research results. When the macro **English Irregular Verbs** starts, you will be offered both of these files.

Depending on your choice, either the source file **Irrverbs.doc** or the source file **Irrverb2.doc** will be opened and all infinitives contained therein loaded. The following dialog box will then display this source list so you can make your selection for the exercise you are creating. If, before the macro started, you already made your own selection of verbs in the working document, then all of these verbs will appear immediately in the dialog box's selection list.

The dialog box provides you with the following additional opportunities to make your selection: If you click on the right-arrow button, the word currently selected in the source list will be transferred to the selection list. Accordingly, the button with the left-arrow will remove the currently selected word from the selection list. The buttons "All -->" and "<-- All" work in the same manner, except they either transfer all entries in the source list to the selection list or remove all entries from the selection list, respectively.

The button "Random 5" transfers five randomly selected verbs from the source list to the selection list and the button "Word beginning" (right side, middle of the dialog box) transfers all verbs with the respective starting letters to the selection list. If needed, you can also enter a verb (or one of the above-mentioned forms) directly into the selection list's text field and transfer it to the selection list by clicking on the "Accept input" button.

The maximum number of entries in the selection list corresponds to the number of verbs in the source list.

After you press the "OK" button, all principle forms of the selected verbs will be transferred in tabular form (with the verb's running number) into the working document. You can then choose the number of principle forms that you want to present in the exercise. Your choices range from one specified form, two specified forms, or three specified forms, all the way to "All except one". Obviously, in the case of English, you will see the same result whether you choose two, three or "All except one" because English has only a total of three principle forms (The corresponding procedure is used by several different macros to generate exercises that deal with principle forms and conjugation patterns.)

In the final step, the tabular exercise will be properly formatted and the verb forms requiring deletion selected at random and **formatted as hidden text** (not deleted permanently!).

If you are not satisfied with the random selection or you would prefer to start with a different number of words, place the cursor in any of the completed exercise's table cells and restart the macro **English Irregular Verbs**. As the macro starts, it will notice that the cursor is located in a table and will therefore assume that it is dealing with a previously generated exercise that now requires modification. In this case, it will skip the entire selection procedure. You must only select the number of starting forms and the macro will randomly present other forms for each word and format the rest as hidden text. This will always be possible as long as you have not permanently deleted hidden text by means of the **Remove hidden text** macro. (Please read the description of this function to learn the purpose of permanently deleting hidden text.)

You can also use this rearrangement feature to create different copies of a previously generated exercise, each with varying levels of difficulty (number of starting words) or simply with different visible forms.

In principle, you can also change the original tables in both of the above-mentioned source files „Irrverbs.doc" or „Irrverb2.doc" without negatively affecting the functionality of the macro. But be careful! Do not alter the general structure of the source table. The alphbetical order should also be preserved, at least all rows with infinitives of the same first letter must stand together. Furthermore, do not alter the font formatting (bold in the table head, rest normal). Stated more simply, the only permitted changes are corrections to individual principle forms and deletion or insertion of complete series of principle forms with all corresponding table cells. The Latin names in the source file's table heading may be substituted by anything you may prefer.

Here is an example with only one verb form provided per series of principle forms:

Infinitive	Simple past	Past participle
		been
	did	
have		
		said
make		

Here is the exercise after simply being copied and modifed by executing the macro once again (two words per series):

Infinitive	Simple past	Past participle
	was	been
do		done
have		had
say	said	
make		made

Please note: The solutions are also present in the puzzle itself, albeit not visible. They are formatted as "Hidden Text". If the puzzle appears on the screen or in the printout to be already filled out, then you must have selected to display the hidden text. Click **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). If hidden text is still visible, go to either **Tools, Options, View** or **Tools, Options, Print** to change this setting (**Word 2007: Word Options / Display**). If your students will work on the exercise directly on the screen or if you send the exercise to them as an e-mail attachment, you should select the entire exercise or even the entire sheet and then execute the **Remove hidden text** function provided in Zarb. If you do not do this, any computer literate student will be able to see all the answers just by clicking on **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). This note applies to all word form exercises and all puzzles that take the form of a table.

DUTCH IRREGULAR VERBS

Zarb 1 menu and toolbar.

Dutch irregular verbs is the Dutch equivalent of **English irregular verbs** and functions the same way. For this reason, I will not repeat the procedures. Please refer instead to the section titled **English irregular verbs**.

The source file for the principle forms is called **Onrwoord.doc** and can be found in the Zarb program folder on your hard drive.

Please note: The solutions are also present in the puzzle itself, albeit not visible. They are formatted as "Hidden Text". If the puzzle appears on the screen or in the printout to be already filled out, then you must have selected to display the hidden text. Click **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). If hidden text is still visible, go to either **Tools, Options, View** or **Tools, Options, Print** to change this setting (**Word 2007: Word Options / Display**). If your students will work on the exercise directly on the screen or if you send the exercise to them as an e-mail attachment, you should select the entire exercise or even the entire sheet and then execute the **Remove hidden text** function provided in Zarb. If you do not do this, any computer literate student will be able to see all the answers just by clicking on **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). This note applies to all word form exercises and all puzzles that take the form of a table.

GERMAN IRREGLAR VERBS

Zarb 1 menu and toolbar.

This macro generates exercises based on the principle forms of the German strong and irregular verbs.

Place the cursor at the position in the document where you want the exercise to begin. This position should be the beginning of an empty line. An alternative to this would be to enter and select directly in the working document the strong or irregular verbs on which you want to base the exercise. Do this before starting the macro. However, your selection should contain only infinitives or one of the forms third person present, third person imperfect ("Präteritum"), or participle perfect.

As the macro starts, you will be asked if you want to use the reformed rules of German spelling. Depending on your choice, either the source file **Strkverb.doc** (spelling before 8/1/1998) or the source file **Strkvrb2.doc** (spelling after 8/1/2006) will be opened and all infinitives contained therein loaded. The following dialog box will then display this source list so you can make your selection for the exercise you are creating. If, before the macro started, you already made your own selection of verbs in the working document, then all of these verbs will appear immediately in the dialog box's selection list.

The dialog box provides you with the following additional opportunities to make your selection: If you click on the right-arrow button, the word currently selected in the source list will be transferred to the selection list. Accordingly, the button with the left-arrow will remove the currently selected word from the selection list. The buttons "All -->" and "<-- All" work in the same manner, except they either transfer all entries in the source list to the selection list or remove all entries from the selection list, respectively.

The button "Random 5" transfers five randomly selected verbs from the source list to the selection list and the button "Word beginning" (right side, middle of the dialog box) transfers all verbs with the respective starting letters to the selection list. If needed, you can also enter a verb (or one of the above-mentioned forms) directly into the selection list's text field and transfer it to the selection list by clicking on the "Accept input" button.

The maximum number of entries in the selection list corresponds to the number of verbs in the source list.

After you press the "OK" button, all principle forms of the selected verbs will be transferred in tabular form (with the verb's running number) into the working document. You can then choose the number of principle forms that you want to present in the exercise. Your choices range from one specified form, two specified forms, or three specified forms, all the way to "All except one". Obviously, in the case of German, you will see the same result whether you choose three or "All except one" because German has only a total of four principle forms (This function is used by several different macros to generate exercises that deal with principle forms and conjugation patterns.)

In the final step, the tabular exercise will be properly formatted and the verb forms requiring deletion selected at random and **formatted as hidden text** (not deleted permanently!).

If you are not satisfied with the random selection or you would prefer to start with a different number of words, place the cursor in any of the completed exercise's table cells and restart the macro **German irregular verbs**. As the macro starts, it will notice that the cursor is located in a table and will therefore assume that it is dealing with a previously generated exercise that now requires modification. In this case, it will skip the entire selection procedure. You must only select the number of starting forms and the macro will randomly present other forms for each word and format the rest as hidden text. This will always be possible as long as you have not permanently deleted hidden text by means of the **Remove hidden text** macro (Please read the description of this function to learn the purpose of permanently deleting hidden text.).

You can also use this rearrangement feature to create different copies of a previously generated exercise, each with varying levels of difficulty (number of starting words) or simply with different visible forms.

In principle, you can also change the original tables in both of the above-mentioned source files „StrkVerb.doc" or „Strkvrb2.doc" without negatively affecting the functionality of the macro. But be careful! Do not alter the general structure of the source table. The alphbetical order should also be preserved, at least all rows with infinitives of the same first letter must stand together. Furthermore, do not alter the font formatting (bold in the table head, rest normal). Stated more simply, the only permitted changes are corrections to individual principle forms and deletion or insertion of complete series of principle forms with all corresponding table cells. **Important**: The Latin names in the source file's table heading may be substituted by their German names to save you the trouble of replacing them in every exercise.

Here is an example with only one verb form provided per series of principle forms:

Infinitiv	3. Pers. Präsens	3. Pers. Imperfekt	3. Pers. Perfekt
		brach	
bieten			
	brennt		
		betrog	
			hat bewogen

Here is the exercise after simply being copied and modifed by executing the macro once again (two words per series):

Infinitiv	3. Pers. Präsens	3. Pers. Imperfekt	3. Pers. Perfekt
	bricht		ist / hat gebrochen
bieten		bot	
brennen	brennt		
betrügen			hat betrogen
	bewegt	bewog	

Please note: The solutions are also present in the puzzle itself, albeit not visible. They are formatted as "Hidden Text". If the puzzle appears on the screen or in the printout to be already filled out, then you must have selected to display the hidden text. Click **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). If hidden text is still visible, go to either **Tools, Options, View** or **Tools, Options, Print** to change this setting (**Word 2007: Word Options / Display**). If your students will work on the exercise directly on the screen or if you send the exercise to them as an e-mail attachment, you should select the entire exercise or even the entire sheet and then execute the **Remove hidden text** function provided in Zarb. If you do not do this, any computer literate student will be able to see all the answers just by clicking on **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). This note applies to all word form exercises and all puzzles that take the form of a table.

CONJUGATE GERMAN VERBS

Zarb 1 menu and toolbar.

This macro generates exercises based on the present tense forms of German verbs.

Place the cursor at the position in the document where you want the exercise to begin. This position should be the beginning of an empty line. An alternative to this would be to enter and select directly in the working document the verbs on which you want to base the exercise. Do this before starting the macro. However, your selection should contain only infinitives or one of the present tense forms.

The macro opens the source file „Vb_Konj_Praes.doc" (or „Vb_Konj_Praes_ds.doc" in Swiss orthography without ‚ß' in case your system language is Swiss) and loads all infinitives contained therein. The following dialog box will then display this source list so you can make your selection for the exercise you are creating. If, before the macro started, you already made your own selection of verbs in the working document, then all of these verbs will appear immediately in the dialog box's selection list.

The dialog box provides you with the following additional opportunities to make your selection: If you click on the right-arrow button, the word currently selected in the source list will be transferred to the selection list. Accordingly, the button with the left-arrow will remove the currently selected word from the selection list. The buttons "All -->" and "<-- All" work in the same manner, except they either transfer all entries in the source list to the selection list or remove all entries from the selection list, respectively.

The button "Random 5" transfers five randomly selected verbs from the source list to the selection list and the button "Word beginning" (right side, middle of the dialog box) transfers all verbs with the respective starting letters to the selection list. If needed, you can also enter a verb (or one of the above-mentioned forms) directly into the selection list's text field and transfer it to the selection list by clicking on the "Accept input" button.

The maximum number of entries in the selection list corresponds to the number of verbs in the source list.

After you press the "OK" button, all principle forms of the selected verbs will be transferred in tabular form (with the verb's running number) into the working document. You can then choose the number of principle forms that you want to present in the exercise. Your choices range from one specified form, two specified forms, or three specified forms, all the way to "All except one".

In the final step, the tabular exercise will be properly formatted and the verb forms requiring deletion selected at random and **formatted as hidden text** (not deleted permanently!).

If you are not satisfied with the random selection or you would prefer to start with a different number of words, place the cursor in any of the completed exercise's table cells and restart the macro **Conjugate German verbs**. As the macro starts, it will notice that the cursor is located in a table and will therefore assume that it is dealing with a previously generated exercise that now requires modification. In this case, it will skip the entire selection procedure. You must only select the number of starting forms and the macro will randomly present other forms for each word and format the rest as hidden text. This will always be possible as long as you have not permanently deleted hidden text by means of the **Remove hidden text** macro (Please read the description of this function to learn the purpose of permanently deleting hidden text.).

You can also use this rearrangement feature to create different copies of a previously generated exercise, each with varying levels of difficulty (number of starting words) or simply with different visible forms.

In principle, you can also change the original tables in both of the above-mentioned source files „Vb_Konj_Praes.doc" or „Vb_Konj_Praes_ds.doc" without negatively affecting the functionality of the macro. But be careful! Do not alter the general structure of the source table. The alphbetical order should also be preserved, at least all rows with infinitives of the same first letter must stand together. Furthermore, do not alter the font formatting (bold in the table head, rest normal). Stated more simply, the only permitted changes are corrections to individual principle forms and deletion or insertion of complete series of principle forms with all corresponding table cells.

Please note: The solutions are also present in the puzzle itself, albeit not visible. They are formatted as "Hidden Text". If the puzzle appears on the screen or in the printout to be already filled out, then you must have selected to display the hidden text. Click **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). If hidden text is still visible, go to either **Tools, Options, View** or **Tools, Options, Print** to change this setting (**Word 2007: Word Options / Display**). If your students will work on the exercise directly on the screen or if you send the exercise to them as an e-mail attachment, you should select the entire exercise or even the entire sheet and then execute the **Remove hidden text** function provided in Zarb. If you do not do this, any computer literate student will be able to see all the answers just by clicking on **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). This note applies to all word form exercises and all puzzles that take the form of a table.

ANTONYMS

Back to the menu outline

Zarb 1 menu and toolbar.

For a selected word (or every word in a selected word list respectively) **Antonyms** looks up those entries in the Word Thesaurus, that are listed as Antonyms – words of opposite meaning – of that word. Those entries are inserted as a list, while the original word will be added to the list in scrambled form and with gaps.

Note: Thesauruses for the most common languages are pre-installed with Word. If you encounter an error message, which states that the Thesaurus for the current language cannot be found, please try to install it from the Word Installation CD-ROM. Be aware that the Word Thesaurus is not always reliable, you may have to check the inserted list of Antonyms carefully.

SYNONYMS

Zarb 1 menu and toolbar.

For a selected word (or every word in a selected word list respectively) **Synonyms** looks up those entries in the Word Thesaurus, that are listed as Synonyms – words of identical or similar meaning – of that word. Those entries are inserted as a list, while the original word will be added to the list in scrambled form and with gaps.

Note: Thesauruses for the most common languages are pre-installed with Word. If you encounter an error message, which states that the Thesaurus for the current language cannot be found, please try to install it from the Word Installation CD-ROM. Be aware that the Word Thesaurus is not always reliable, you may have to check the inserted list of Synonyms carefully.

THESAURUS ANALYSIS

Zarb 1 menu and toolbar.

For a selected word (or every word in a selected word list respectively) **Thesaurus analysis** looks up all corresponding entries in the Word Thesaurus, and inserts them as a list. In advanced classes the analysis can be used to illustrate the concept of synonyms and antonyms or to explore the scope of meaning of a term. A critical discussion of the results and a comparison with printed thesauruses or those on the internet is highly recommended, because the Word Thesaurus occasionally gives out dubious or outright false results. Sending the results of such critical inspection to Microsoft may in time result in pre-installed Word Thesauruses of higher quality.

This is an example for the thesaurus analysis of the word "fun":

Thesaurus Analysis

Word: fun
Number of meanings: 2
Listed meanings: [1] amusing, [2] enjoyment
Listed antonyms: boring, boredom
Listed parts of speech (for each meaning respectively): 0, 1
Listed similar expressions:
Listed cognates:
Synonyms of each meaning respectively: [1] amusing, pleasurable, entertaining, enjoyable, cool [2] enjoyment, excitement, amusement, pleasure, joy, exuberance, entertainment, merriment

Note: Thesauruses for the most common languages are pre-installed with Word. If you encounter an error message, which states that the Thesaurus for the current language cannot be found, please try to install it from the Word Installation CD-ROM.

GENERATE/EDIT WORD LIST

Zarb 1 menu and toolbar.

Generate/edit word list takes words of your choice from a selected text or block of text and uses those words to create a word list. You can choose to include in the word list either

- all words previously formatted in bold,
- all words, or
- words with certain (groups of) letters whose position in the word can be

- anywhere,
- at the beginning of the word,
- in the middle of the word,
- or at the end of the word.

When you choose the first option, **Words in bold format**, you can decide whether to automatically (during processing) remove the bold formatting from the words in the selected text region. If the selection criteria is set to **All words**, you can choose to adopt only once any words that appear several times. However, the macro is case-sensitive, so the same word may be included in your list twice if it is capitalized in once place but not in another. To avoid this, you can either revise the word list by hand or run the macro **Lower-Case Only** and - if necessary - amend and re-sort the list by means of the **Generate/edit word list** macro.

With respect to the order of your word list, you have four choices:

- alphabetical order
- the original order of appearance (only with the selection criteria 1 and 3)
- random order
- according to the length of the word (ascending or descending)

To separate the entries, you can use either blank spaces or paragraph marks.

The list will be inserted below the selected area or into a new document, as selected.

In addition, you can choose to apply numbering to the word list.

If you select an existing list rather than a block of text, you can use this macro to readjust your list. You can change the order of the entries, eliminate any double entries, or create a partial list of words that contain certain letters.

Generate/edit word list is the tool of choice for creating syllable puzzles. Please manually separate the syllables of the words that you want to use for the puzzle. (Unfortunately, Word's automatic syllable separating tool will not work for this purpose. Regardless, the syllable separation rules used by Word are of questionable quality and are unsuitable for many educational purposes like those required in elementary schools.) To indicate the locations of syllable breaks, simply insert a blank spaces between two syllables. Then select the entire text region and execute the macro. Select the acceptance criteria **All words** and – very important – deactivate the **Same words only once** control box. As the puzzle is generated, select **Random order** in the **Ordering** option group. The syllable puzzle is now complete. Since Microsoft Word perceives every group of letters between blank spaces (or separating marks) to be a word, it does not matter that the selection contained syllables instead of words.

If you wish to create a list of all nouns appearing in a German text, you will be better served by the **Gaps – parts of speech (German)** macro with the **Nouns** option. Then just use the solutions as a word list.

CHECK AGAINST WORD LIST

Zarb 1 menu and toolbar.

The **Check Against Word List** macro compares a selected text to a word list. The comparison list is a normal Word document that you load while the macro is running. Or it can be a simple text file. First you must decide how to treat words that appear in the selected text but do not appear in the checklist. These words can be

- formatted in bold and/or
- attached underneath the selected text region and/or
- written to a file.

If you choose to write the words to a file, you can further choose to attach the words to the comparison list or put them in a new document. If you attach the words to the comparison list, they will appear in italics to make them stand out.

Please note: This function is not case-sensitive as it compares the word list to the text. In other words, the function will not distinguish between e.g. the German words "Dank" (noun) and "dank" (preposition). However, in the residual lists (words that could not be matched), the words will be spelled exactly as found in the original text.

Check Against Word List can also be used to compare two word lists**.** In this case, you can simultaneously generate a difference list and a residual list. The difference list consists of the words that could not be matched and is attached to the bottom of the originally selected list; the residual list is achieved by adding the non-matching words to the checklist. Furthermore it is also possible to choose an ordinary text document to serve as a checklist. As it is read in, this text will be converted to a word list.

Residual lists and difference lists are limited to a maximum of 2 million words. But do not be mislead by this number. Word is really not suitable for comparing **truly large** word lists and text bodies for scientific purposes. Depending on your computer's processor speed and memory capacity (RAM), the process of reading in long comparison lists can be inconveniently long.

Please note: When a checklist or a text defined as checklist is read in, tables (and the words contained therein) will be skipped. If you want to use the German or English irregular-verb files as a checklist, you must first copy them into a new document because they are in table form. Then select the whole table and use the **Table/Convert Table to Text** command to convert the table into text (**Word 2007: Table Tools / Layout / Data / Convert to Text**). The final step is to save that document under a new name and close it. It is now ready to be used as checklist.

WORD FREQUENCY

Zarb 1 menu and toolbar.

Word Frequency counts the frequency with which every word contained in a text or text area appears. It then outputs all words with their respective frequencies. You can choose to have this output in the current document or in a new document.

However, this function is case-sensitive. As a result, it is possible that a word could appear twice, once with a capital letter and once with a lower-case letter. Depending on the language, you can overcome this problem by first converting all letters to lower-case. If this is not practical, it will be necessary to review the frequency list and make manual changes.

This function is not suitable for calculating word frequencies in long texts. Due to technical limitations in Word's internal sorting function, the number of words that can be read in is limited to 4000. If you attempt to read in a greater number of words, you will receive an error message and the cursor will appear behind the last word that could be read in.

CHARACTER-SET TABLES

Zarb 1 menu and toolbar.

Character-Set Tables is a supplementary function that allows you to output a new document that contains in table form all printable characters contained in a selected character set. The table will include the characters' decimal numbers, i.e. their ANSI code. You can also print this document. This function records only the characters with the codes 32 through 255. As a result, it is not possible to completely print any of the modern Unicode character sets. You can also output several or even every character set at the same time. Each character set will usually print on one DIN A4 page.

You can use this supplementary function to create an overview of your favorite font types. You will find this particularly useful if you like to use puzzle fonts, math fonts, and/or pronunciation fonts with small images.

However, you can also use the decimal code on Windows systems in order to enter characters that do not have their own keys on your keyboard. To do this, hold down **Alt** and use the numeric keypad to type 0 (zero) followed by the character's three-digit code. However, there are usually more convenient methods of entering foreign language characters.

For technical reasons, some of the characters in their default font sizes may not completely fit into the cell provided by the table. Before printing, always check and adjust as necessary the font size of problematic characters. It is also possible that all the characters could take up more space than you would expect from normal fonts. In these cases, the character-set table may not fit on one DIN A4 sheet.

INSERT HEADER

Zarb 1 menu and toolbar.

Insert Header allows you to rapidly insert a predefined (AutoText) worksheet header into the header area of your document. After starting the macro you will be shown a list of the available headers (two are pre-installed). Your selection in the dialog will then be inserted automatically into the header line (visible in the layout view of Word only).

Zarb provides the following worksheet headers to be taken either as examples or for revision according to your needs. As you can see, they are small tables. The use of tables is usually the easiest way to arrange text elements in a form-like manner.

Zarb header 1

Name:	Class:	Date:

Zarb header 2

German		Hans Zybura
Name:	Class:	04.04.2008

In header 2, the teacher's name and the date are entered as fields. If your name (to the right) and the current date (below your name) do not appear, you can update those entries by placing the cursor anywhere in the name or the date and pressing **F9**. If you see a name other than your own or no name at all, enter your name on the **User Info** tab under the menu item **Tools, Options** and repeat the update procedure (**Word 2007: Word Options / Popular**).

Please note: Headers will appear on every page of your document unless you change the default setting in Word. Check in Word Help to learn more about headers.

How to create my own worksheet headers?

You can create up to 50 worksheet headers and save them for use with Zarb, e.g. for different classes, subjects, or purposes (worksheets, tests, etc.). Select the text, the table, the image or simmilar content, which you want to use as header. Then select **AutoText** in the **Insert** menu and in the submenu, again, **AutoText...** In the following dialog you will be shown a preview of the selected content. (**Word 2007: Insert / Quick Parts / Save selection ...**)

The following steps are important: 1) In the field **Find in** activate the entry "Zarb41.dot (global template)" (**Word 2007:** active the entry "StartZarb.dotm", instead). This guarantees the availability of the header in Zarb. 2) Enter a

name for the new header in the field **Show tipp on entry of this text** (**Word 2007:** field **Name**). This name *has to* begin with "Zarb header", and can have any addition you see fit, e.g. "Zarb header 3" oder "Zarb header English", etc.

Then select **Add** (**Word 2007: OK** button) and be careful to answer "Yes", when you close your current document and Word asks you if you want so save the changes to the "Zarb41.dot" template (**Word 2007:** "StartZarb.dotm" template) (the saving process might take some time). On the next activation of the Zarb macro **Insert header** your new worksheet header will be shown in the list of available entries.

PASTE TEXT FROM THE WEB

Zarb 1 menu and toolbar.

The internet has become an important source of research material, Wikipedia and other established websites provide texts which can be used for examples and exercises in education. The function **Paste text from the web** makes it easier for you to work with such texts: It removes all kinds of formatting, which is usually preserved when copying text into the clipboard, and inserts the clipboard content as plain text. This is useful since many websites' layout is structured by invisible tables, which are difficult to handle in Word documents and can obstruct the correct functioning of many Zarb macros.

Select any text you like in your internet browser. Copy it to the clipboard by pressing **Ctrl+C** or by **right click / Copy**. Activate your Zarb document, place the cursor at the desired inserting point and click the symbol for **Paste text from the web** in the Zarb toolbar. The copied text will be inserted as plain text.

Please note: Images, that are contained in the copied text, will not be pasted! Of course you can copy these images seperately and paste them as usual by pressing **Ctrl+V** or selecting **Insert** from the **Edit** menu, if you wish.

Sometimes elements of websites like image captions, advertising, or additional columns obstruct selecting the exact text one wants to copy. Please check the pasted text in your Zarb document for remains of such superfluous content and delete it manually, if need be.

REMOVE HIDDEN TEXT

Zarb 1 menu and toolbar.

The **Remove hidden text** macro permanently deletes from the selected section all text sections that are formatted as hidden text.

All puzzles in tabular form, all principle form exercises, all word form exercises, and **Scrambled text** do not permanently delete the "superfluous" letters or word forms, but instead just format them as "hidden text". This had the advantage of allowing you to make changes in the puzzles at any time by manually making the hidden text visible again. In the principle form and word form exercises, the hidden word forms provide the foundation for the remaining high level of variability in exercises that have already been completed.

However, if your students will complete the exercises directly on their computer screens or if teachers send the exercises to their students as an e-mail attachment or on a diskette, then it is completely undesirable for the hidden text to remain in the exercises. The reason is obvious: the students only have to click on the button **show/hide** in the standard toolbar (**Word 2007: Home / Show all**) and they will see all of the answers. This macro gives you a quick way to delete all hidden text. To apply this procedure to the entire document at once, select the entire contents of the document by using the **Edit, Select All** standard function (**Word 2007: Home / Select / Select All**) (**Ctrl + A**), and then start the macro.

TRANSFORM TABLE

Zarb 1 menu and toolbar.

This little helper function interchanges the rows and columns of a table. Place the cursor in the table which you want to transform and start the macro. This can be useful for conjugation exercises like those that are created by the Zarb functions **Word form exercise** and **Conjugate German verbs**, or for **Matching exercises**.

Please note: The table must not be too complex: If it contains 'combined' cells, that span several rows or columns, Word cannot recognise the definite number of rows and columns in the table, and thus cannot transform the table. Also, while the formatting of the table text is preserved in the transformed table, the formatting of the original table itself cannot be preserved for technical reasons. This regards borders, background colour, altered cell delimiters, or the table width.
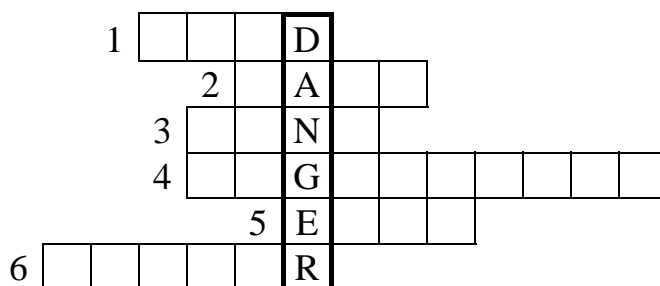
CROSSWORDS

Zarb 2 menu and toolbar.

The **Crosswords** macro enables you to easily create automatic or user-defined crossword puzzles based on prepared word lists or texts. You can also use the macro to rebuild a puzzle from the ground up and without any starting information. Due to the great flexibility in the construction and output of puzzles, you are confronted with several (at least three) dialog boxes when running the macro. But do not get irritated: in the end everything is quite simple and logical. The completed puzzle is nothing but a table where only the relevant cells have been enclosed with a frame. Although the other cells' gridlines may appear on your screen, they will not be printed. To display or hide the gridlines, select the **Show** or **Hide Gridlines** entry in the **Table** menu (**Word 2007: Table Tools / Layout / Show Gridlines**).

Example

The following puzzle was generated automatically in the **Crosswords** default setting using a word list extracted from "Little Red Riding Hood". Definitions were added during the output of the puzzle.

The word list: wine danger wolf ears nightshirt mother mouth path grandma eyes bottle cake hood woods huntsman

Across: 1) Little Red Riding ...   2) This is in Little Red Riding Hood's basket.   3) It's like medicine to Grandma. 4) This belongs to Grandma, but the wolf wears it in bed.   5) Grandma needs glasses for her ...   6) Who prepared Little Red Riding Hood's basket?

```
1  H  O  O  D
      2  C  A  K  E
   3  W  I  N  E
   4  N  I  G  H  T  S  H  I  R  T
         5  E  Y  E  S
6  M  O  T  H  E  R
```

You can also choose, as shown here, to output a completed copy of the puzzle to serve as the answer sheet. This is the default setting.

Please note: The solutions are also present in the puzzle itself, albeit not visible. They are formatted as "Hidden Text". If the puzzle appears on the screen or in the printout to be already filled out, then you must have selected to display the hidden text. Click **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). If hidden text is still visible, go to either **Tools, Options, View** or **Tools, Options, Print** to change this setting (**Word 2007: Word Options / Display**). If your students will work on the exercise directly on the screen or if you send the exercise to them as an e-mail attachment, you should select the entire exercise or even the entire sheet and then execute the **Remove hidden text** function provided in Zarb. If you do not do this, any computer literate student will be able to see all the answers just by clicking on **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). This note applies to all word form exercises and all puzzles that take the form of a table.

How to Proceed

Either select a prepared text or prepared word list or create a blank selection by clicking in the left margin of a blank line. Then you are asked to determine how the letters should be presented: **CAPITALS, lower case,** or **Original form**. The **Basic alphabet only** selection box activates or deactivates the display of German umlauts or the conversion of letters with accent marks to letters without accent marks. The option does not work with special forms of the cyrillic alphabet. The word list or text is read in and a selection list provides a means of selecting the down word. You can also enter a new word or choose random selection.

At the same time, you can choose an editing mode: **Automatic** or **User-defined.** The automatic mode attempts to assign an across word to each letter of the down word**.** If a word cannot be found for a particular situation, you will be asked to add a suitable word. In the user-defined mode, you manually assign the words by choosing suitable words individually from a list in an extra dialog box. First move the selection bar (in the **Edit** box) to the letter of the down word to which you want to assign an across word. The **Suggestions** button will present you with a list of suitable words to choose from, or you can enter a new word in the text box provided. By clicking **Assign,** your choice will appear next to the selected letter of the down word. Continue in this manner until all letters have been assigned an across word. You can also exchange previously assigned words. Click on the **Done** button when you are finished. This will close the dialog box but only if each letter in the down word has been assigned an across word. **Cancel** will close the dialog box and terminate the function without producing a result.

After completing the assignments, you can choose the output style. The variety of options surrounding configuration and clues allows you to adapt the exercise adequately to the performance level of your pupils/students as well as to your educational objectives. But as a rule, the default setting will produce satisfactory results. Choose from the following options to build your puzzle:

- Provide down word
- Empty all boxes
- Provide vowels
- Provide consonants

Any letters you choose to provide as clues will appear in the puzzle as filled-in boxes.

Use the same dialog box to determine the type of clues that will be appropriate for the puzzle design, the target group, and the objective of the puzzle.

- Add down word

- Add across words
- Add definitions

If you choose to output this as well, the clues will be displayed below the puzzle but before the completed version (with answers filled-in). The list of across words - if selected - follows the order of appearance in the puzzle.

Completing the puzzle's across boxes to find the vertical solution could be a nice, easy assignment for small children or for beginners in a language class. If you want to change the order of the attached across words because the assignment would be too easy, you can shuffle them randomly by using the macro **Generate Word List.** It is also possible (and less work) to forgo using any of the provided clues and simply use the entire original word list. It usually contains more words than the puzzle. For educational purposes of repetition and solidifying of terms or vocabulary, it is not necessarily a disadvantage when the students must also deal with a few words that were not used in the puzzle.

If you then decide to provide direct clues like the provided choices, remember that all letters of the solution are contained in the puzzle as hidden text. By clicking on **show/hide** in the standard toolbar (**Word 2007: Home / Show all**) you can see immediately which words are contained in the puzzle.

If you ticked **Add definitions**, you will be asked to successively enter the definitions for the down word and all across words. By clicking on the button **Cancel**, you can skip the entry field for the current word and continue with the next one. The entries will then be inserted automatically into your document. Of course, you can enter the definitions directly into the document at a later time or make changes there. Since you are working in a word processing program, you retain all the freedom to make the changes you find necessary.

To create a solution sheet, you can output a version of the puzzle that has all the answers filled in.

Please note: You will receive a warning message if you attempt to start with an empty selection or if your word list is too short for the down word you selected. You can then choose **Cancel**, **Repeat** or **Ignore**. **Cancel** terminates the entire function without producing a result; **Repeat** allows you to choose a different down word; **Ignore** merely continues by asking you for the missing words for each letter individually, thereby allowing you to generate the puzzle in a user-defined mode. Starting by selecting a blank line is most useful if you are working from a piece of paper and do not want to type the complete text or word list first.

If you are starting with an empty word list, specify the down word by entering this word into the entry area of the empty list (located in the dialog box). You can enter here only a single word. All other (across) words that will be needed will be requested individually during the course of the automatic mode. In the user-controlled mode, however, it is sometimes more time consuming to enter the across words in this manner, but you will retain a much better overview of your progress and will remain until the end flexible with regards to the selection and assignment of the across words. This mode is particularly useful when you have an idea from the beginning which word will serve as the down word. You can then take the time you need to look for and select suitable across words from the current subject area. This method can also save you work when you are starting with a rather long down word and can only hope that the word list contains enough words that will match up with the letters in the vertical word.

Compound terms

This function assumes that you usually use nouns or terms which consist of only one word. Compound nouns like "car mechanic" are therefor placed in the puzzle as two separate words. However, hyphenated terms like "dining-table" are processed as one single word, the hyphen is placed in its own box like any other letter.

So, in order to make the function place compound terms with separate words like "car mechanic" as a single term, you can replace the space between the words with a hyphen and delete the hyphen after the puzzle is generated. To signify the space between the words you should gray out the respective box (table cell).

To gray out a puzzle box (table cell) select it and use **Format / Borders and shading / Shading** (**Word 2007: Table Tools / Design / Shading**),

Apostrophe in a word will be deleted when generating a puzzle, also the apostrophied word part if it consists of a single letter. So "dentist's" will be placed in the puzzle as "dentist", French "c'est" will be placed as "est". If you want to use terms like "dentist's assistant" or "c'est la vie" you can do so if you a) replace the apostrophe by e.g. a hyphen which you replace again after the puzzle is generated, and b) connect the separate word by hyphens, which you delete in the completed puzzle. Gray out the empty boxes as described above.

Potential Problems

Question: When I'm in automatic mode and am asked to enter another word, sometimes the word I enter is not accepted even though it contains the letter that is needed. The same thing has also occurred when I enter a new word in the user-defined mode.

Answer: Please keep in mind that the case of the letters (capitals/ lower-case) may be important. For this problem to be solved automatically, you must choose in the beginning the options **CAPITALS** and **lower-case**. The option **Original form** will not automatically adapt the letters as needed. If you chose **Original Form,** you must enter a capital letter whenever one is requested. The same applies to lower case letters. In order to avoid such problems, make it a habit to type the letter as requested!

If you choose **Original form** you may be confronted with another problem: With the character set used in Windows 3.1(.1) for all messages, dialog boxes, menus, etc., it is difficult to differentiate between capital "I" (as in India) and lower case "l" (as in love) because they are almost identical. I personally have a difficult time telling the two apart in the input request for suitable words. Therefore, try to remember your down word, especially if using the Original Form option, or try both letters if necessary!

Q.: In the dialog box for the choice of the down word, I entered a new word and then clicked the Random button. The word I entered then disappeared. Why?

A.: Random selection of the down word is based only on words that are already present in your prepared word list or in your text and therefore appear in the selection list. If you attempt to manually enter a word for the down word, it will not be taken into consideration during random selection.

Q.: Some of the rows in my finished puzzle are twice the height of others. Why is this, and how can I change it?

A.: The boxes have become too narrow for the contents. The box width may have been reduced automatically because the puzzle would have otherwise exceeded the page width; or maybe you increased the font size too much. Two-digit numbers in front of the across words in a large puzzle may be another reason. Their cells might be too narrow to contain both digits next to each other so that instead they appear one below the other.

Possible solutions: Reduce the font size overall or just in individual cells with problematic contents. Or use the **Table column width** function (**Word 2007: Table Tools / Layout / Cell Size / Column size**) to increase the width of every column in the table.

Q.: I teach children with sight problems and would therefore like to greatly increase the size of the puzzles. What is the best way to do that?

A.: Use the **Change puzzle size** macro or refer to the Question and Answer section of the chapter on **Word search puzzles**. Here you will learn how to manually change the size of a puzzle.

Q.: I used a word list of medium length to create several puzzles in automatic mode. Unfortunately, some of the words kept appearing in various puzzles. How can I prevent this?

A.: You can either delete from the word list the words already used or you must work in the user-defined mode. The function does not have a "memory" of puzzles generated earlier. On the other hand, if you want to generate **one** puzzle that uses all of the words in your word list, then you would be better served by the **Criss Cross** or **Wordsearch** puzzle types. The **Criss Cross** puzzle type is suitable for word lists of medium length with a maximum of 50 words; the **Wordsearch** puzzle can use word lists with a maximum of 89 words. In any case, word lists of these lengths produce real puzzle monsters that would be better suited to the school's newspaper, but not to a regular classroom assignment.
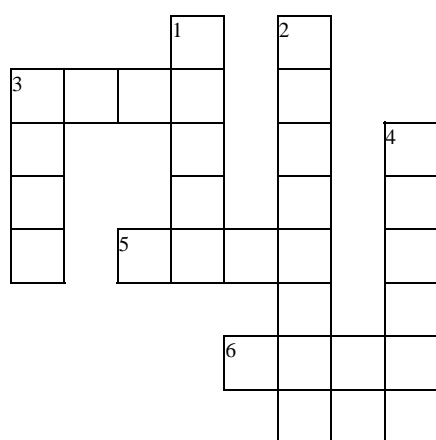
CRISS CROSS

Zarb 2 menu and toolbar.

This puzzle type creates a grid layout that includes seceral across words and several down words. The maximum number of words is limited to 50. Please note that generating this complex puzzle may take some time.

The completed puzzle is simply a table where only the relevant cells have been enclosed in a frame. Although the other cells' gridlines may appear on your screen, they will not be printed. To display or hide the gridlines, select or deselect the **Gridlines** entry in the **Table** menu (**Word 2007: Table Tools / Layout / Show Gridlines**).

Let's start with an example. First you see the word list that was used, then comes the puzzle, the clues, and a completed copy for the teacher.

The word list (from Little Red Riding Hood): wolf wine basket huntsman belly eyes cake

Across: 3. A drink for Grandma. 5. "Better to see you with!" 6. Mmmh – delicious!

Down: 1. Little Red Riding Hood and Grandma crawled from the wolf's ... without being hurt. 2. The savior 3. The mean one 4. Little Red Riding Hood carries this in her hand.

Please note: The solutions are also present in the puzzle itself, albeit not visible. They are formatted as "Hidden Text". If the puzzle appears on the screen or in the printout to be already filled out, then you must have selected to display the hidden text. Click **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). If hidden text is still visible, go to either **Tools, Options, View** or **Tools, Options, Print** to change this setting (**Word 2007: Word Options / Display**). If your students will work on the exercise directly on the screen or if you send the exercise to them as an e-mail attachment, you should select the entire exercise or even the entire sheet and then execute the **Remove hidden text** function provided in Zarb. If you do not do this, any computer literate student will be able to see all the answers just by clicking on **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). This note applies to all word form exercises and all puzzles that take the form of a table.

How to Proceed

First, select a prepared word list. You can choose how the words in the puzzle will be written: **CAPITAL LETTERS** or **lower-case letters.** Unlike the other puzzle types, this one does not have the **Original form** option because this would greatly limit the number of possible letter junctions. The **Basic alphabet only** selection box activates or deactivates the display of umlauts or the conversion of letters with accent marks to letters without accent marks. The option does not work with special forms of the Cyrillic alphabet.

Next, the word list is read in internally and an attempt is made to place the words. Of course, there is never a guarantee that this task will complete quickly or that all words will even fit in the puzzle. As a result, the macro will finally stop trying to place some of the words and then tell you precisely how many words of the total were placed successfully. Depending on your taste and patience, you can continue to work with this result or cancel the following design dialog and start the whole process over again. This can definitely be worthwhile and should not take all that long if you have a relatively new computer! This is true because the random aspect of the internal placement plays an important role, giving you a different result each time you run the macro. You can also use this to your advantage if you wish to make several different versions from the same word list, possibly with the intention of altering the level of difficulty for internal differentiation.

After completing the assignments, you can choose the output style. The variety of options surrounding configuration and clues allows you to adapt the exercise adequately to the performance level of your pupils/students as well as to your educational objectives. But as a rule, the default setting will produce satisfactory results. Choose from the following options to build your puzzle:

- Empty all boxes
- Provide first letters
- Provide vowels
- Provide consonants

Any letters you choose to provide as clues will appear in the puzzle as filled-in boxes.

Use the same dialog box to determine the type of clues that will be appropriate for the puzzle design, the target group, and the objective of the puzzle.

- Add solution words
- Add definitions

The clues will be presented below the puzzle. If you checked the box for **Add definitions**, you will be asked to enter definitions for each of the words, one after the other. By clicking on the button **Cancel**, you can skip the entry field for the current word and continue with the next one. The entries will then be inserted automatically into your document. Of course, you can later enter the definitions directly into the document or make changes there. Since you are working in a word processing program, you retain all the freedom to make the changes you find necessary. If you want, you can even ignore all of the clues suggested in the dialog box and simply place the word list on the worksheet.

Für das Lösungsblatt können Sie sich zusätzlich eine vollständig ausgefüllte Kopie des Rätsels ausgeben lassen.

During the final phase of creating a **Criss Cross** puzzle, your working document will have to be saved several times. This is unavoidable due to the complexity of the changes in the document. If you have not yet saved your working document, you will be asked to provide a descriptive name the first time it must be saved. If you cancel the **Save as...** dialog box, the macro will continue but you will be several times of the need to save the document. If you continue to cancel each subsequent request to save the document, you will eventually receive the message "Insufficient memory", "Formatting to complex", or something similar to that. At this time Word will stop processing the macro and you will have only a pitiful shell of a puzzle.

If you have already saved the document or save it once, each of the subsequent saving procedures will proceed automatically and probably without you even noticing it.

This function really pushes the limits of Word's internal programming language. The complexity of the table formatting in this type of puzzle makes it advisable to keep the working document as short as possible.

Compound terms

This function assumes that you usually use nouns or terms which consist of only one word. Compound nouns like "car mechanic" are therefor placed in the puzzle as two separate words. However, hyphenated terms like "dining-table" are processed as one single word, the hyphen is placed in its own box like any other letter.

So, in order to make the function place compound terms with separate words like "car mechanic" as a single term, you can replace the space between the words with a hyphen and delete the hyphen after the puzzle is generated. To signify the space between the words you should gray out the respective box (table cell).

To gray out a puzzle box (table cell) select it and use **Format / Borders and shading / Shading** (**Word 2007: Table Tools / Design / Shading**),

Apostrophe in a word will be deleted when generating a puzzle, also the apostrophied word part if it consists of a single letter. So "dentist's" will be placed in the puzzle as "dentist", French "c'est" will be placed as "est". If you want to use terms like "dentist's assistant" or "c'est la vie" you can do so if you a) replace the apostrophe by e.g. a hyphen which you replace again after the puzzle is generated, and b) connect the separate word by hyphens, which you delete in the completed puzzle. Gray out the empty boxes as described above.

WORDSEARCH PUZZLE

Zarb 2 menu and toolbar.

This macro is a very flexible tool. The results it gives you are a good way to have fun in the classroom or to lighten the burden of doing homework. Usually, wordsearch puzzles are far too time-consuming to produce by hand, even when supported by the table functions in a modern word processor. The necessary effort would even exceed that of creating crossword puzzles. On the other hand, their educational value makes them suitable for students of all ages and nearly all subjects. Therefore, I took great care to enable you to set the level of difficulty according to your needs.

General Remarks on How This Macro Works

If the processing time required for this macro exceeds your patience, you can stop it by pressing **Ctrl+Break** (Windows), or **Command+Period** (Macintosh). But please bear in mind that this will leave you with temporary results in your document that will not be automatically deleted. Nor can they be completed by running this macro again at a later time.

Let's start with a very simple example. Select the following word list and then you will shortly receive the following result if you have not changed any of the default settings:

Dog Cat Horse Chicken Frog Hedgehog Rabbit Blackbird

	A	B	C	D	E	F	G	H	I	J
1	J	J	H	E	D	G	E	H	O	G
2	Z	Z	S	O	E	B	H	W	F	O
3	R	J	R	D	O	L	V	H	R	B
4	A	S	D	D	Y	A	K	O	O	C
5	B	D	K	C	M	C	K	R	G	I
6	B	O	O	A	N	J	S	G	G	G
7	I	G	V	T	N	B	N	E	W	L
8	T	T	H	C	H	I	C	K	E	N
9	G	S	D	P	E	R	J	Y	M	K
10	E	T	T	N	D	D	S	W	E	Z

This search puzzle is hiding 8 words.
The words are: 1. BLACKBIRD 2. HEDGEHOG 3. CHICKEN 4. RABBIT 5. HORSE 6. FROG 7. CAT 8. DOG

Duplicate without the fill letters:

	A	B	C	D	E	F	G	H	I	J
1			H	E	D	G	E	H	O	G
2						B			F	
3	R					L		H	R	
4	A					A		O	O	
5	B	D		C		C		R	G	
6	B	O		A		K		S		
7	I	G		T		B		E		
8	T			C	H	I	C	K	E	N
9						R				
10						D				

In this small puzzle with 10x10 squares, all eight words of the list have been used, although in a slightly different order. The size of the puzzle and the word density were automatically calculated in such a way that all the words would fit, whereby word density was assigned a relatively low value (see below for details). The word list was sorted according to the length of the entries. In this simplest variant, all words are hidden in horizontal rows, with the remaining squares filled with random letters.

The number of horizontal and vertical squares can be freely chosen, with a minimum of 4 and a maximum of 25. You can also vary the word density (number of words in a puzzle of a given size) and insert the words randomly vertically, diagonally, or backwards in all directions. You can choose other styles for the output and choose from different clues in place of the words. These clues may include definitions or, in the case of foreign language vocabulary, the English meanings. For the teacher's copy, you may choose to regenerate the puzzle without the fill letters (leaving only the hidden words). This will make it much easier for you to see where the words are hidden in the students' copies.

But you have a choice even before getting started. In particular, if you choose not to use a word list, start simply with a blank selection and then decide later whether you want to enter the words manually (one after the other) or retrieve them from a dictionary file.

Starting With a Selected Word List or a Blank Selection

Word List

The words of a selected word list are either sorted according to length before being inserted (default) or will be processed according to their order. The automatic calculation of the grid size and the sorting procedure ensure that all the words will fit into the puzzle if possible. The macro then looks systematically for available spaces for each of the words. Words may cross but not overlap each other.

The default word density always corresponds initially with the number of words in your word list. If you increase the word density, you may choose to manually enter the missing words after the word list has been exhausted.

If the word list contains the same word two or more times, every entry of this word will be considered, until the word list is exhausted or the maximum density has been reached. I assumed that a prepared word list will contain exactly the words you want in the puzzle. However, when entering new words directly or when using a dictionary file, each word is accepted only once.

Blank Selection

If you do not have a prepared word list but instead prefer to enter the search words directly during execution of the macro or if you wish to use a dictionary file, then create a blank selection. You can do this by clicking in the margin to the left of an empty line. This selects the normally invisible paragraph mark.

Size, Word Density, Level of Difficulty, and Source of Search Words

After deciding on the output style, you will be shown a dialog box where you determine the size of the puzzle, the word density, the level of difficulty, and the source of the search words.

If you start with a selected word list, the size of the puzzle will be automatically calculated on the basis of the overall number of words and the length of words in the word list. For seven words, for example, an 8x8 grid is usually sufficient. However, if the longest word consists of 18 letters, the width is automatically set to 18 squares to ensure enough space for this entry. The word density corresponds to the number of words in the word list. You will also find this number in the **Source of searchwords** group box next to the **Word list** option. The associated check box **Long words first** is activated by default to ensure that all words will fit the grid. Without this function there is commonly not enough room left to incorporate a long word found at the end of your word list. The default setting for the **Level of difficulty** is **Across words only**. Here you choose the option you prefer, while all other settings can normally be left unchanged when using a word list.

Click **OK** when finished. **Cancel** aborts the macro without making any changes to your document. The **Word density...** button takes you to another dialog box where you can choose from three values that are calculated automatically for low, medium and high word density. From there, you can either prompt the construction of the puzzle directly or return to the previous dialog box.

Option Group: Size And Word Density

Size (width and height)

Width and height of a puzzle are expressed in the number of squares. The format of the individual squares' themselves is set to 20 points, but you can use the **Change Puzzle Size** function to alter this. The values for width and height must lie between 4 and 25. Any values below 4 or over 25 will be corrected automatically when you leave the dialog box.

The puzzle's width and height determine not only its external shape but also contribute to the placement and, of course, the possible length of the search words. Long words can be arranged diagonally only when **both** size values are at least equal to the word length. Otherwise they will be placed across or down only, as room allows, assuming you have enabled both directions when choosing the level of difficulty (see below).

When you start with a selected word list, the values for width and height will be chosen automatically (up to the maximum values) so that the puzzle will be large enough to accommodate all words. If the initial width is less than the number of letters in the longest word, the width will be increased automatically until that word fits. As a result, you can almost always completely process a word list using the default values. The absolute limits on the size of the puzzle and the word density are the exceptions to this rule: A maximum of 89 words can fit in the puzzle.

Please note that only the **width** (not the height) will be automatically adjusted to accommodate extra long words. Under these conditions, even if you enable placement of words in all directions, the longest words will only be hidden horizontally. If you want to change this, make the height value equal to the width value.

Keep in mind also that across words spread over the whole width of the puzzle are relatively easy to recognize. If you prefer a more difficult puzzle, extend the size even more. Hopefully, the additional squares with their extra letters will deliver a sufficiently confusing mix of letters and increase the fun of completing the puzzle. If you construct puzzles with relatively few search words (about ten or less), you may want to try the same thing in order to make the puzzles more fun.

Try to strike an acceptable balance between fun and frustration, particularly when teaching small children or beginners in a language class. When preparing games and exercises, there are many situations where it could be counterproductive to confuse the learners by hiding words in too many different directions. To ensure that the

students remain motivated while searching for the words, you may find it useful to increase the size of the puzzle in relation to the default values.

If you start without a word list, i.e. with a blank selection, the default width and height of the puzzle will always have the minimum value of four and the word density will be one. In this case, you must manually insert more sensible values.

Word Density

The term "word density" denotes the number of words contained in a puzzle of a given size. When using a word list, the default word density value matches the number of words in the list, except for extremely long lists with more than 89 words (more on this under the heading **Word list**).

When you start with a selected word list but increase the default value for word density, you will be asked (after all the words in the list have been processed) whether you want to add the missing words manually. If you click **No**, the macro continues in the normal way and incorporates only the words from the list.

If you want to **manually** enter the words to be searched, the word density determines the maximum number of entries. If you start from a **dictionary**, the macro tries to fit in words from the dictionary until either the desired word density or the maximum number of unsuccessful placement attempts has been reached.

You can enter any number greater than 0 (zero) into the word density text box. If you exceed the maximum density permissible for the respective size of the puzzle, your setting will be automatically reduced to the maximum permissible value when you exit the dialog box. In order to give you another orientation tool, I created an additional dialog box related to this subject. You can reach this box by clicking on the **Word density...** button underneath the **OK** and **Cancel** buttons. Refer to the section titled **Special Dialog Box for Word Density** for more information. However, if you return from this special dialog box to the main one, your own word density settings will be automatically reduced to the value of low density matching the size of your puzzle.

If you start without a word list, the default value for word density will always be 1. Therefore, you must set this value yourself.

Option Group: Level of Difficulty

Under the **Level of Difficulty** option group you can select the write or read direction of the search words. The name "Level of Difficulty" is somewhat misleading because the difficulty of a word search puzzle depends on more than just the direction of the words contained in the puzzle. However, the direction is the main factor in determining difficulty.

In all levels of difficulty except the first, the initial direction for each word will be determined randomly in the macro. The "initial direction" means that the placement attempts will begin with this direction. Of course, the randomly selected initial direction can be implemented only if the word actually fits in this direction. If not, each remaining direction will be attempted until all directions permitted by the level of difficulty have been attempted. The maximum number of possible directions is eight (the highest level of difficulty): across and down (each of which may be forward or backward or top-down and bottom-up respectively), both diagonals, and for each of these two directions, respectively, resulting in a total of eight possibilities.

The probability for the choice of a certain initial direction is not evenly distributed - the diagonals are chosen less often, whereby the macro furthermore differentiates between the ordinary direction of reading (left to right and top down) and the reverse one (right to left and bottom up). The latter are less likely to appear. I would like to remind you once again that the randomly selected initial direction cannot always be implemented. For instance, if a long word is initially placed diagonally, it is most likely that other long words could only be placed diagonally as well. The same applies to the other directions. In general, long words placed early strongly influence the entire construction of the puzzle.

Across Words Only

Choose this option to incorporate into the puzzle all the words in their normal direction of writing, i.e. left to right.

If the content of the puzzle is difficult in itself, i.e. if the words, terms or vocabulary present a high degree of difficulty to the students, then it will clearly be advisable to make the search a little easier. In such cases you will probably find this option useful. You can add more fun to the puzzle by increasing its size, thereby inserting more fill letters that will conceal the location of the hidden words.

Vertical Words As Well

If you activate this option, the words will be inserted into the puzzle horizontally (from left to right) or vertically (top to bottom). The initial probability is the same for both directions.

Words Arranged Backwards As Well

This setting gives you horizontal and vertical words, whereby they are inserted from left to right, right to left, top to bottom, or bottom to top, respectively. Accordingly, "backwards" also includes "from bottom to top". Up to this point we have examined a total of four possible directions.

Diagonal Words As Well

This option allows the insertion of diagonal words as well, whether from top left to bottom right or reversed; or from bottom left to top right or reversed. In other words, this gives you another four possible directions.

I did not think it would be necessary to differentiate the level of difficulty with the diagonal directions. I think it's fair to say that anyone who can find diagonal words will be able to find them in all directions.

Option Group: Source of the Search Words

You specify here where the program should obtain the search words that it will insert into the puzzle. If you start with a blank selection, you can choose between **Manual entry** (default) and **Dictionary**. If you start with a selected **Word list**, this option is selected by default and the check box located below it will be activated. The **Word list** option and the **Long words first** check box will only be visible if you started with a word list, otherwise you will find the message "No word list selected!" in its place.

Word List

Any selected area that contains text will be accepted as a word list. Unlike other functions, the words may also be in a table. However, the words may not be part of a graphical image because word processors treat graphics differently than text, even if text appears in the image. Individual letters, numbers, punctuation marks, and any other series of characters that do not consist of at least two connected letters will be automatically ignored when the word list is read in.

You can read in up to 250 words, but only a maximum of 89 of these will be inserted into a (very large) puzzle. As a result, it makes little sense to read in excessively long word lists. Furthermore, the time required to read in a long list will be unnecessarily long. It is preferable to convert long word lists into a dictionary file; the corresponding option (see below) will then randomly pick some of the words. After the maximum number of words has been reached, you will receive a message and the remaining words will simply be ignored. The finished puzzle is always placed below the selected block of text. In the case of tables, it will be placed below the whole table, even if you selected only a part of it.

When the **Long Words First** check box has been deactivated, the entries in a word list will be processed in the order they are presented. You will receive a message if any of the words cannot be placed in the puzzle. This is likely to happen more than once unless you previously sorted the list according to the length of its entries.

Long Words First

This selection box will be activated by default. The words of a list will be sorted according to their length. As a result, longer words will be inserted into the puzzle first. This increases the likelihood that all words can be placed in the puzzle. Therefore, it is generally a good idea to activate this option.

However, this option is not recommended if you reduced the puzzle's default size (calculated and set by the program). In this case it is very likely that the longest words will not fit in the puzzle at all; but they are at the beginning of the list. This situation will result in a number of tiring messages.

It is also a good idea to deactivate this option if your selected list contains many more words than can be processed even in a giant puzzle. Otherwise, even an extremely large puzzle will soon become filled up with long words while the length of each of the inserted words decreases only slowly. As a result, continued construction of the puzzle can become a very frustrating experience. The following message always follows prolonged placement attempts: "Unfortunately, the word `XYZ´ cannot be placed in the puzzle! Do you want to continue anyway?"

If you select "No", attempts to take on additional words will be terminated and the final dialog box for selecting the clues will appear. If you select "Yes", the macro will move to the next word and continue trying to place the words.

Manual Entry

This option is easiest when you have your words in mind or on paper, but not yet in the computer. It saves you the work of first entering the words into a Word document. Direct manual entry does not mean that you must also place the words into the puzzle yourself. Like in the other modes, the macro will do this automatically.

If a word is too long or if it cannot be placed, you will receive a message informing you of this and you can enter another word. If in the beginning you chose **capitals** or **lower case** and then **basic alphabet only**, your entries will be adapted automatically. The **basic alphabet only** selection box is ineffective for special forms of the Cyrillic alphabet.

In addition to the entry box for new words, this dialog box also contains a list of words that have already been used. If you enter a word for the second time, you will receive an error message and can then continue with a different word. During manual entry, the same word cannot be used more than once.

Dictionary

If you start with a blank selection, you have another option besides manual entry of the search words: you can have the search words read in randomly from a dictionary file. Such a dictionary must be an ANSI text file and each line may contain only one word and nothing else, i.e. there may be neither blank lines nor lines containing anything else - with one exception: Individual letters are allowed on a line to facilitate better arrangement of dictionaries that are arranged alphabetically. The individual letters will simply be skipped. During automatic generation of a puzzle, the macro randomly chooses a line and tries to place in the puzzle the word contained on that line. If it is not possible to place that word (because it is too long, for example), it will choose another word. This procedure is repeated until the previously defined word density of search words has been reached. Words already existing in the puzzle will be automatically discarded.

When you start the macro, make sure that your dictionary file is not still open from your previous editing activities. If the dictionary file is still open, you will receive an error message and the macro will cancel operation. In this case, close the file and restart the macro.

An ANSI text file is created by saving a document in the following way: choose **Save As** from the **File** menu, and select "Text Only" in the **Document Type** drop-down list. For the **Wordsearch Puzzle** macro, the file extension of a dictionary file must be "*.txt". Otherwise the file will be rejected.

As you have seen, you can easily create your own dictionary files, or you could retrieve word lists available in the Internet and revise them in accordance with the criteria mentioned above. The included "dictionary.txt" file is a modified version of the included basic German vocabulary that meets the above-mentioned criteria for a dictionary file.

Special Dialog Box for Word Density

You can access this dialog box by clicking **Word Density...** in the macro's main dialog box.

Here you can choose from three values that the program has calculated. The calculations are based on the total numbers of squares (width multiplied by height). For the low word density, this number is simply divided by "9" and rounded off. For our example this means 8 x 8 / 9 = 7.11, i.e. seven words. The divisor for medium word density is 8, and for high density 7. The high word density is always the maximum value for a puzzle of a given size.

The provided word densities are relatively high overall. However, this does not necessarily increase the level of difficulty for smaller puzzles. This is because a greater number of filling letters make the puzzle more difficult and confusing, especially if you allow all search directions when setting the level of difficulty.

If you return to the previous dialog box, the value chosen here will be ignored and the word density reduced to its respectively low value. However, if you select **Use new value**, the program starts to generate the puzzle based on all of the settings from the main dialog box except for the word density, which has been redefined here.

Clues and Solutions

In the next and final step, you choose the clues and the form of the solutions for the teacher's copy.

Options Group: Clues

The clues are intended to make the students' lives a little easier. In many educational situations, you will find it useful to provide the words that the student's must find. To do this, just click **Add Solutions**. Instead of the solutions themselves, you could also choose to provide definitions, translations, or more or less tricky hints. If you choose to **Create and Add Definitions**, you will be asked to define each word individually, one after the other; the definitions you provide will then be inserted into your document below the puzzle. The final option **No clues**, is self-explanatory. In any case, this line will appear directly under your puzzle:

This puzzle contains X words.

In your document, X is replaced by the actual number of words.

Two more clues regard the puzzle grid: By default the option **Add coordinates** adds an additional column with numbers (left) and an additional row with letters in alphabetical order (top) to the grid. This eases orientation in puzzle grids even if they are not large. If you want to make it easy for children to find the hidden words, you can check the option **Highlight first letters**. The first letter of every word will be pointed out by a gray background. If the words are arranged not only horizontally but also diagonally or backwards it can still be difficult to find them. (For technical reasons the gray background of all first letters will be visible while the **Clues and Solutions** dialog shows. If you leave the option **Highlight first letters** unchecked the gray backgrounds will be changed back to white automatically.)

Option Group: Add Solutions for Teacher's Copy

This group consists of two check boxes, one being **Duplicate without fill letters** (checked by default), and the other **Search words with positions** (unchecked by default).

Duplicate Without Fill Letters

If you activate this box, you will get a complete copy of the puzzle, but without the random fill letters. This will make it much easier for you to find the search words. This form of a puzzle is also useful as a demonstration for your students, particularly if you want to introduce a higher level of difficulty (words in all directions) by using an example or if you want to make their task much easier.

Search words with positions

If you activate this selection box, the search words will be displayed below the clues (if present) with indication of where they can be found in the puzzle. The positions of the words will be expressed like this:

Solution: 1. BLACKBIRD (F2-F10) 2. HEDGEHOG (C1-J1), etc.

The first position refers to the first letter of the word; the second position (after the hyphen) refers to the last. Both positions can be read from the coordinates which are added to the puzzle grid by default. You can also make out the direction of the word. In the example above, it is a down word (top to bottom) and an across word (left to right).

To add variety to the students' searching task, you may decide to give them none of the above-mentioned clues (solution words nor any definitions) but instead give them just the positions of the words. This type of assignment

also promotes the students' understanding of a two-dimensional matrix, similar to a system of coordinates. To achieve this, you should uncheck the option **Add coordinates**.

Compound terms

This function assumes that you usually use nouns or terms which consist of only one word. Compound nouns like "car mechanic" are therefor placed in the puzzle as two separate words. However, hyphenated terms like "dining-table" are processed as one single word, the hyphen is placed in its own box like any other letter.

So, in order to make the function place compound terms with separate words like "car mechanic" as a single term, you can replace the space between the words with a hyphen and delete the hyphen after the puzzle is generated. To signify the space between the words you should gray out the respective box (table cell).

To gray out a puzzle box (table cell) select it and use **Format / Borders and shading / Shading** (**Word 2007: Table Tools / Design / Shading**),

Apostrophe in a word will be deleted when generating a puzzle, also the apostrophied word part if it consists of a single letter. So "dentist's" will be placed in the puzzle as "dentist", French "c'est" will be placed as "est". If you want to use terms like "dentist's assistant" or "c'est la vie" you can do so if you a) replace the apostrophe by e.g. a hyphen which you replace again after the puzzle is generated, and b) connect the separate word by hyphens, which you delete in the completed puzzle. Gray out the empty boxes as described above.

A note on language support

 Wordsearch puzzle attempts to automatically identify the language of the selected text, and chooses the random fill letters from a matching alphabet: For most European languages the Latin alphabet suffices, but extended alphabets are used for Polish, Turkish, or other languages the alphabets of which contain many special characters. Greek and Cyrillic script are also supported, but you should be aware that Word can only identify the corresponding languages if 'keyboards' are installed for them in your Windows system settings. If this is not the case, you can select a text in Greek or Cyrillic script and set the language manually in the menu entry **Tools / Language / Set language** (**Word 2007: Review / Set language**). Run **Wordsearch puzzle** afterwards and the random letters are correctly chosen from the respective alphabet.

The above said *does not* apply to Zarb for **Macintosh**, because the language support of Word X (and higher) is quite limited in comparison with Word for Windows. The random letters are chosen instead from the basic Latin alphabet for all languages, except for German, where umlauts are added. Unfortunately this undermines the usefulness of this function for exercises in Greek or Cyrillic script.

Tip for Altering the Size of Letters and Squares

Question: I want to alter the sizes of the squares and letters in my puzzle. However, I do not succeed in creating quadratic boxes. What can I do?

Short answer: Use the **Change Puzzle Size** macro, new to Zarb 3.0.

Extended answer: The best way to achieve quadratic cells (boxes) in a Word table is to manipulate the cell width and height, both expressed in points (pt.). The function preformats puzzle cell sizes to 16 points in both directions. You can alter these cell sizes as best suits your needs, but be aware that some larger puzzles will eventually exceed the width of the page. To change the size of a puzzle, proceed as follows:

Use your mouse to select the whole table, or if the cursor is within the table, choose **Table, Select Table** (**Word 2007: Table Tools / Layout / Select / Select Table**). First set the **Cell height** to "exactly" and enter "20 pt" as the size (without the quotation marks!). For **Cell width** likewise "20 pt", for **Space between columns** "0 cm". The macro's default font size is 12 point. In my opinion, the puzzle looks best when the font size is 4 to 6 points (depending on the font) smaller than the cell size. For instance, the standard fonts Arial or Times New Roman in sizes of 10 to 12 points fit in the preformatting. However, this applies only to standard fonts. There may be major deviations if you choose to use some of the fonts for primary school scripts (like handwriting). If you want to use

one of them, just try various point sizes (**Format/Font...** or **Font Size** from the formatting bar (**Word 2007: Home / Font**)). Don't forget to select the entire table before changing the font size.

ACROSTIC

Zarb 2 menu and toolbar.

The **Acrostic** function is very similar to the **Crossword** function. Instead of a vertical word, the horizontal words are arranged according to a vertical series of letters or group of letters that occur in all horizontal words. Here is an example that uses the same word list as our description of Crosswords. The letter "o" was chosen as the common letter.

wine danger wolf ears nightshirt mother mouth path grandma eyes bottle cake woods huntsman

1		O				
2		O				
3		O				
4		O				
5		O				

1	M	O	U	T	H	
2	B	O	T	T	L	E
3	W	O	O	D	S	
4	M	O	T	H	E	R
5	W	O	L	F		

Select a word list, choose how the letters will be displayed, and then specify the common letter or group of letters. The macro picks the suitable words from the word list in random order and presents you with a dialog box where you choose the presentation of the output and the provision of solutions/clues. You can fill the vertical column with the respective letter(s) (default) or leave all squares empty. You can add the solution words themselves and/or definitions of the words to serve as clues. Furthermore, you can add a completed copy to serve as the solution sheet (default).

Select a word list, choose how the letters will be displayed, and then specify the common letter or group of letters. The macro picks the suitable words from the word list in random order and presents you with a dialog box where you choose the presentation of the output and the provision of solutions/clues. You can fill the vertical column with the respective letter(s) (default) or leave all squares empty. You can add the solution words themselves and/or definitions of the words to serve as clues. Furthermore, you can add a completed copy to serve as the solution sheet (default).

Theoretically, you could also select a text instead of a word list, because only those words that contain the common letter(s) will be chosen. But in order to avoid articles, pronouns and other undesirable words, I recommend creating a word list. Use the function **Generate/edit word list** to extract from a text a list of words that contains only the respective letter(s). It's then only a matter of seconds to delete unwanted words from your list. Or format in bold possible target words (such as nouns) for various types of exercises and then create from this a list.

To extract all nouns from a German text, you can also choose the function **Gaps - parts of speech (German)** and use the solutions to create your word list.

Please note: The solutions are also present in the puzzle itself, albeit not visible. They are formatted as "Hidden Text". If the puzzle appears on the screen or in the printout to be already filled out, then you must have selected to display the hidden text. Click **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). If hidden text is still visible, go to either **Tools, Options, View** or **Tools, Options, Print** to change this setting (**Word 2007: Word**

Options / Display). If your students will work on the exercise directly on the screen or if you send the exercise to them as an e-mail attachment, you should select the entire exercise or even the entire sheet and then execute the **Remove hidden text** function provided in Zarb. If you do not do this, any computer literate student will be able to see all the answers just by clicking on **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). This note applies to all word form exercises and all puzzles that take the form of a table.

Compound terms

This function assumes that you usually use nouns or terms which consist of only one word. Compound nouns like "car mechanic" are therefor placed in the puzzle as two separate words. However, hyphenated terms like "dining-table" are processed as one single word, the hyphen is placed in its own box like any other letter.

So, in order to make the function place compound terms with separate words like "car mechanic" as a single term, you can replace the space between the words with a hyphen and delete the hyphen after the puzzle is generated. To signify the space between the words you should gray out the respective box (table cell).

To gray out a puzzle box (table cell) select it and use **Format / Borders and shading / Shading** (**Word 2007: Table Tools / Design / Shading**),

Apostrophe in a word will be deleted when generating a puzzle, also the apostrophied word part if it consists of a single letter. So "dentist's" will be placed in the puzzle as "dentist", French "c'est" will be placed as "est". If you want to use terms like "dentist's assistant" or "c'est la vie" you can do so if you a) replace the apostrophe by e.g. a hyphen which you replace again after the puzzle is generated, and b) connect the separate word by hyphens, which you delete in the completed puzzle. Gray out the empty boxes as described above.

CHANGE PUZZLE SIZE

Zarb 2 menu and toolbar.

This function gives you an easy way to enlarge or reduce **Crosswords**, **Wordsearch**, **Acrostic**, or **Criss Cross** puzzles. Simply place the cursor anywhere in the puzzle and start the macro. In the dialog box you must indicate whether the puzzle is a **Criss Cross** or one of the other puzzle types. This is an important distinction because the numbers in **Criss Cross** puzzles must be much smaller than the letters. Then click on the **Enlarge** or **Reduce** button to change the puzzle size in steps until you have achieved the size you want. The dialog box will remain open until you click on the **Cancel** button.

If you accidentally change a **Criss Cross** puzzle with the adjustment for the other puzzles, it's no problem at all: Simply select the option for the **Criss Cross** puzzle type and change the size once again. This will reproduce the correct setting for letter and number sizes.

Change puzzle size works with an internally established ratio of box size to letter or number size. It is possible that the letters could become too large or too small for the boxes when you use certain font types. However, my tests with various font types indicate that this is rather unlikely. It is more likely that placing a number and a letter in the same box simultaneously could become a problem on **Criss Cross** puzzles. Under certain conditions, the letter may be blocked from sight. The simplest solution for this problem is to select a different font type for the entire puzzle. Or, you can manually change the size of the box. Refer to the end of the chapter on **Wordsearch puzzles** for instructions on how to do this.

HIDDEN-LETTER FONT

Zarb 2 menu and toolbar.

To use this function the included Zarb character sets must be installed. (This should be the case after installation of Zarb. You can also manually install the fonts from the sub-directory **Zarbfont** in the Zarb program folder on your hard drive.)

The following hidden-letter or puzzle fonts are available:

Name in the macro's selection box	Name in the font type list	Characteristic
Hidden-letters	Zarb hidden-letters	All letters appear only as boxes of different sizes, whereby dots for the letter "i" and accent marks remain visible. The size of the box depends on whether the letters extend above or below the line.
Mirrored	Zarb mirrored	Every character appears individually reversed as if viewed in a mirror.
Upside-down	Zarb upside-down	Every letter stands upside down.
Upside-down mirrored	Zarb upside-down mirrored	Every character is upside down and also has the mirrored effect.
Message in a bottle	Zarb message in a bottle	Each letter is incomplete.
Half-letters	Zarb half-letters	Only the top half of each character is visible.

The Zarb puzzle fonts are optimized for printing but not for viewing on your screen. That is why they sometimes appear rather frayed on the screen but look much better when printed.

Proceed as follows when using the **Hidden-Letter Font** function:

First format all desired target words in bold and then select the entire text or text section. **Hidden-Letter Font** searches the entire selected text for words formatted in bold and converts these to hidden letter font either directly in the text or it outputs the words underneath the text together with a gap for the solution. In the same dialog box you can opt for setting the bold formats in the text back to normal (default).

Note: A simpler way to convert a single word or a continuous text section to hidden letter font or another puzzle font is to select the word and then select the desired font type from the list of available fonts in the standard toolbar.

Question: I want to convert only a single word. Each time when I format it in bold, select it, and then run the macro, I get the message that no bold word was found. Why does this happen?

Answer: The selected area was probably shorter than the area you had formatted in bold. This can happen if you selected the word for bold format with a double mouse-click, and then selected it afterwards by dragging the mouse over it or by using the keyboard shortcut. With the first method, the following blank space is also selected, with the others it is not. The same thing sometimes occurs when you previously formatted in bold a continuous selection that contains several words. As I mentioned previously: convert single words or solid blocks of text by selecting from the list of font types in the formatting toolbar.

Question: I would like to print the solution to an exercise so it is upside down but can be read normally when you turn the exercise sheet 180 degrees. How do I do that?

Answer: You must perform three steps.

- First select the entire solution and use the **Text Backwards** macro with the option **Flip entire text**; deactivate also the control box **Add gaps for entire text**.
- Then select the result and format it with the font **Zarb upside down mirrored font**.
- Finally, align the entire section to the right.

CRYPTOGRAM

Zarb 2 menu and toolbar.

Cryptogram encodes selected text according to various simple rotation procedures (Caesar cipher). Rotation means that each letter is converted to the letter that is a certain (adjustable) number of places farther in the alphabet. For example, with a rotation of one position, the letter "A" becomes "B". The list of letters used as the encoding key is circular, so the letter "Z" would become "A". Accordingly, rotation by two positions converts "A" to "C" and "Z" to "B".

Example:

Tom and Sue are in love.   *becomes*

UPN BOE TVF BSF JO MPWF

Encoding key: ABCDEFGHIJKLMNOPQRSTUVWXYZ

Rotation by 1 position(s).

Instead of letters, the code could also consist of numbers. If you deactivate the control box **Rotation by ... positions**, each letter of the original text will be replaced by its position in the alphabet (more precisely: its position in the list of letters used as the encoding key). Words are delimited by a single vertical line. Punctuation marks are indicated by two vertical lines. You can supplement number coding with rotation so that the number then indicates the position of the rotated letter in the alphabet.

Example without rotation:

Tom and Sue are in love.   *becomes*

20 15 13 | 1 14 4 | 19 21 5 | 1 18 5 | 9 14 | 12 15 22 5 |

Encoding key: ABCDEFGHIJKLMNOPQRSTUVWXYZ

The encoding key is the basic alphabet in capital letters (26 characters), so the selected text will be capitalized before the encoding. German umlauts and letters with accents etc. will be replaced with the respective letter of the basic alphabet.

If you activate the **Add encoding key** check box, the list of letters will be attached as well as the rotation factor, if any. Activate the check box **Arrange in groups of five** to output the encoded text in groups of five letters or numbers, separated by a blank space. The font will automatically set to "Courier New", so that the groups all have the same width.

Please note: If you do not provide any clues for decoding, i.e. neither the key, nor rotation factor, nor any other kind of suitable clues, don't let the encoded text be too short. Short texts can be very difficult to solve. However, this is not necessarily true for a simple number code based on the normal alphabet without any rotation. Text encoded in this manner may still be easy to guess.

When working with non-western European languages, it makes sense only to use the list of capitalized letters of the Latin alphabet as encoding key!

EVERY SECOND LETTER

Zarb 2 menu and toolbar.

Every second letter generates a very simple cryptogram by inserting a random letter in front of every letter in the selected text. However, in contrast to the cryptogram function, this function does not alter the original letters. In other words, umlauts, other special characters, and lower-case letters remain intact.

An example:

Solving puzzles is fun.

Result:

pSaoulxvuidntg rpnusztzvlyeds vius qfjuen.

Only every second letter is valid!

You can also apply this function several times to the same text to generate cryptograms where only every 4th, 8th, 16th, 32nd, etc. letter is used to spell the solution. If you do this, don't forget to change the clues appropriately.

On the other hand, it can be interesting to tell the students simply that the letters are hidden at regular intervals in the cryptogram. When you combine this level of difficulty with a wordchain (no blank spaces), you are giving your students a really tough nut to crack. Or, you can choose to insert randomly generated blanks (an option in the **Word chain** macro). Or use the classical method, i.e groups of five letters... . With this number of options, the results are limited only by your imagination.

Hinweis: Um die Sache richtig kryptographiemäßig zu gestalten, kann man im Ausgangstext nur die Buchstaben des lateinischen Grundalphabets verwenden und zwar generell in Großschreibung. Dies können Sie erreichen, indem Sie zuerst die Funktion **Kryptogramm** ohne Buchstabenrotation anwenden.

A note on language support

Every second letter attempts to automatically identify the language of the selected text, and chooses the random fill letters from a matching alphabet: For most European languages the Latin alphabet suffices, but extended alphabets are used for Polish, Turkish, or other languages the alphabets of which contain many special characters. Greek and Cyrillic script are also supported, but you should be aware that Word can only identify the corresponding languages if 'keyboards' are installed for them in your Windows system settings. If this is not the case, you can select a text in Greek or Cyrillic script and set the language manually in the menu entry **Tools / Language / Set language** (**Word 2007: Review / Set language**). Run **Every second letter** afterwards and the random letters are correctly chosen from the respective alphabet.

The above said *does not* apply to Zarb for **Macintosh**, because the language support of Word X (and higher) is quite limited in comparison with Word for Windows. The random letters are chosen instead from the basic Latin alphabet for all languages, except for German, where umlauts are added. Unfortunately this undermines the usefulness of this function for exercises in Greek or Cyrillic script.

WORD BACKWARDS

Zarb 2 menu and toolbar.

Write or copy a word individually to a separate line (!), select the word, and then select the toolbar button or the menu entry. You can choose from two forms for the output: Either the original word is replaced with another "word" formatted with large (14 pt.) and bold letters, expanded character spacing, the letters in reverse order, and a number of underscoring characters that matches the number of letters for the solution OR the backwards word is inserted in a narrowly enclosing "scramble box" (technical name: frame), whereby the position of the individual letters varies relative to the baseline.

If several words are in the row and selected, only the first word in the selection will be processed and the remainder will be returned without any changes. An example.
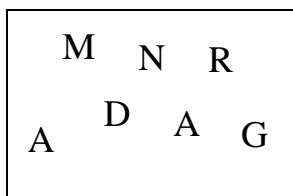
Original:

   Grandma

Result 1 (in place of the original):

   A M D N A R G :   _ _ _ _ _ _ _

If the character spacing does not appear broad enough, you can easily change this with **Altering gap form**.

Result 2 (in place of the original):

M	N	R
A	D A	G

Please note that only the Page Layout view accurately depicts a frame as it will appear when printed. If result 2 is shown with a box that stretches across the entire width of the page, then you are currently in the Normal view. To see a more accurate depiction of the result, go into the **View** menu and select Page Layout.

After starting, all **Zarb** macros switch automatically to the Normal view. This is necessary in order to preserve the uniform functionality of the macros. Please do not allow this to bother you. Always perform the final placement of exercises in frames while in the Page Layout view!

The frames are formatted by default to allow surrounding text. You can change this or any other formatting options by clicking on the frame and then selecting the **Format Frame** entry from the **Format** menu. Or, right click on the frame (Macintosh: Ctrl + click) and choose the appropriate entry from the menu that appears (**Word 2007:** the formatting option remains available only from the context menu).

With a small amount of additional work, you can place several of these so-called "scramble boxes" next to each other. It takes some practice to use frames effectively, but I think you will find the effort worthwhile. A little advice: always have patience with yourself, the word processing program, and with me. Don't give up right away! Beginners should probably stay away from scramble boxes and first become acquainted with the normal text form.

WORD BACKWARDS WITH GAP

Zarb 2 menu and toolbar.

Example:

   Thank (u o y) _ _ _ for your (e c i v r e s) _ _ _ _ _ _ _ , dear example!

The letters of the reversed word and the underscoring characters are clearly separated, whereby the number of underscoring characters matches the number of letters.

However, you cannot process several words at a time. This macro differentiates between letters and other characters and processes the selection only up to the first character that is not a letter, usually a blank space or mark of punctuation. These and all non-letters within the selection remain unchanged.

WORD BACKWARDS WITHOUT GAP

Zarb 2 menu and toolbar.

As opposed to the macro **Word backwards with gap**, there are no special formats and underscoring characters that help will help you recognize the backwards words:

Thank you for ruoy service, raed example!

This macro reverses not only entire words, but as yuo cna see hree, also selected groups of letters within words. If you want to generate a mistake text with reversed letters, this is the right tool for you. Two selected letters are automatically re-inserted in reverse order. By the way, you can also use this in reverse to correct typing errors. **Note:** Exercises with reversed letters (like mistake texts of all kinds and even mistakes that are not corrected immediately) have been perceived by some educational researchers as being problematic. However, this position, like the recommendation to always correct every mistake immediately, is still subject to considerable debate and in my opinion is distant from reality and counterproductive.

You cannot reverse several words at once. This macro differentiates between letters and other characters and processes the selection only up to the first character that is not a letter, usually a blank space or mark of punctuation. These and all other characters within the selection remain unchanged. To reverse several words in a row, please use the **Text backwards** macro.

TEXT BACKWARDS

Zarb 2 menu and toolbar.

Text backwards gives you the choice between three options, as follows:

- Flip entire text.
- Flip words only (preserve word order).
- Flip word order only (preserving words).

In addition, you can output underneath the text insertion gaps in the form of the original text. This respective selection box will be activated by default.

Copying remains one of the basic types of exercises when teaching proper spelling. However, some students have the ability to turn off their brain while performing the exercise so that they mechanically copy the words as mere sequences of letters, taking in the words with their eyes and recreating them directly with their hands. Text backwards gives you an opportunity to alter the text in such a way that the student will be challenged to spell the word correctly. Challenged, but unfortunately not forced! There will always be a few experts at avoiding any type of work when studying and they will be able to copy even backwards texts without learning anything new.

The option **Flip word order only** can also be used as a simplified variation of the **Scramble sentence** exercise. However, the **Scramble sentence** macro gives you the opportunity to present the result in a scramble box. If you want to achieve the same optical effect on a sentence only with reversed word order, you can reprocess the result with the **Funny formatting** macro.

When used in combination with the "Zarb upside down mirrored font" and right-aligned formatting, this macro (with the option **Flip entire text**) generates a text that is easily readable when you rotate the sheet by 180 degrees. This makes it the ideal way to add solutions to the bottom of a sheet.

ANAGRAM

Zarb 2 menu and toolbar.

Write or copy a word individually to a separate line (!), select the word, and then select the toolbar button or the menu entry. You can choose from two forms for the output: Either the original word is replaced with another "word" formatted with large (14 pt.) and bold letters, expanded character spacing, the letters in randomly transposed order, and a number of underscoring characters that matches the number of letters for the solution OR the

scrambled word is inserted in a narrowly enclosing "scramble box" (technical name: frame), whereby the position of the individual letters varies relative to the baseline.

If several words are in the row and selected, only the first word in the selection will be processed and the remainder will be returned without any changes. An example.
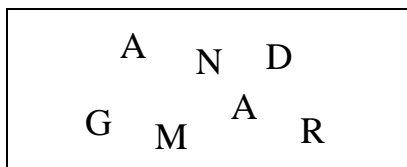
Original:

Grandma

Result 1 (in place of the original):

M D G N A R A : _ _ _ _ _ _ _

If the character spacing does not appear broad enough, you can easily change this with **Altering gap form**.

Result 2 (in place of the original):

Please note that only the Page Layout view accurately depicts a frame as it will appear when printed. If result 2 is shown with a box that stretches across the entire width of the page, then you are currently in the Normal view. To see a more accurate depiction of the result, go into the **View** menu and select Page Layout.

After starting, all **Zarb** macros switch automatically to the Normal view. This is necessary in order to preserve the uniform functionality of the macros. Please do not allow this to bother you. Always perform the final placement of exercises in frames while in the Page Layout view!

The frames are formatted by default to allow surrounding text. You can change this or any other formatting options by clicking on the frame and then selecting the **Format Frame** entry from the **Format** menu. Or, right click on the frame (Macintosh: Ctrl + click) and choose the appropriate entry from the menu that appears (**Word 2007:** the formatting option remains available only from the context menu).

With a small amount of additional work, you can place several of these so-called "scramble boxes" next to each other. It takes some practice to use frames effectively, but I think you will find the effort worthwhile. A little advice: always have patience with yourself, the word processing program, and with me. Don't give up right away! Beginners should probably stay away from scramble boxes and first become acquainted with the normal text form.

The macros **Scrambled word with gap** and **Scrambled word without gap** are quite similar to this one. However, they have been designed for scrambled words in continuous texts, and will not change the font size. These functions have also been incorporated in the **Cloze text** macro as options.

SCRAMBLE WORD WITH GAP

Zarb 2 menu and toolbar.

Scramble word with gap randomly shuffles the letters of a selected word and outputs the result with expanded character spacing and in brackets, followed by a corresponding gap for the scrambled word. This macro is designed for use with individual words in a continuous text. If you selected more than one word, only the first will be processed and the rest remain unchanged.

Example:

(h n k a T) _ _ _ _ _ you for your (e v c r i e s) _ _ _ _ _ _ _ , (r e d a) _ _ _ _ example!

SCRAMBLE WORD WITHOUT GAP

Zarb 2 menu and toolbar**.**

Scramble word without gap randomly shuffles the letters of a selected word. This macro is designed for use with individual words in a continuous text. If you selected more than one word, only the first will be processed and the rest remain unchanged. Unlike **Scramble word with gap**, there are no special formats and underscoring characters that will help the student recognize the scrambled words:

> hnkTa you for royu service, erad example!

SCRAMBLE INNER LETTERS

Zarb 2 menu and toolbar.

Scramble inner letters randomly shuffles the letters of all words in a selected text, except for the first and the last letter of each word. Words with only three letters will remain unchanged.

Example:

> Thnak you for your scveire, dear elmxape!

SCRAMBLE SENTENCE

Zarb 2 menu and toolbar.

This macro places the words of a selected sentence in random order and outputs the result below the original. The words are separated by pipe characters (vertical lines), indicating that the sentence's syntax is incorrect. You have the following options for handling the punctuation marks.

- Add to the preceding word
- Retain original position (scramble each segment).
- Move to the end
- Delete

Here is an example for each of the four options:

> The Ant, perceiving his design, stung him in the foot.

Result:

Scrambled sentence: Please place the words in the right order!

- design, | The | perceiving | his | stung | Ant, | foot. | him | in | the |
- Ant | The | , | his | perceiving | design | , | in | him | the | stung | foot | . |
- in | the | foot | The | Ant | stung | him | design | perceiving | his | , | , | . |
- his | The | design | stung | foot | in | perceiving | him | the | Ant |

Of course there will be no bullets in front of the macro result and the task prompt will automatically come before every scrambled sentence.

Use a separate line for each sentence and select the entire line by clicking in the left margin. This will ensure that the punctuation mark at the end of the sentence will be included. If it is not included, the last section of the sentence or even the entire sentence will remain unscrambled when you use the option **Retain original position**.

If you process several sentences, the instructions between the sentences will not be needed and you can delete them.

Scrambled word enables enclosure of the results in a scramble frame. The result may look like this example:

Scrambled sentence: Please place the words in the right order!

<div style="border: 1px solid black; padding: 1em;">

The   his   the

   perceiving   in   stung

    ,   ,   foot   him

Ant   design   .

</div>

Please note that only the Page Layout view accurately depicts a frame as it will appear when printed. If result 2 is shown with a box that stretches across the entire width of the page, then you are currently in the Normal view. To see a more accurate depiction of the result, go into the **View** menu and select Page Layout.

After starting, all **Zarb** macros switch automatically to the Normal view. This is necessary in order to preserve the uniform functionality of the macros. Please do not allow this to bother you. Always perform the final placement of exercises in frames while in the Page Layout view!

The frames are formatted by default to allow surrounding text. You can change this or any other formatting options by clicking on the frame and then selecting the **Format Frame** entry from the **Format** menu. Or, right click on the frame (Macintosh: Ctrl + click) and choose the appropriate entry from the menu that appears (**Word 2007:** the formatting option remains available only from the context menu).

Note: In Word, you should forgo using typographical quotation marks as the standard (see the general introduction). For **Scramble sentence**, the sentences should not contain typographical quotation marks because the macro cannot properly process these in all of the options. In principle, though, typographical quotation marks will also be recognized and, in most cases, the result will be correct.

SCRAMBLE TEXT

Zarb 2 menu and toolbar.

This macro scrambles the sentences or paragraphs of a selected text in random order and outputs the result in tabular form. An empty column will be placed in front to allow the student to number the sentences or paragraphs. When you use the **Scramble paragraphs** option, you must make sure the text is entered properly. Specifically, normal lines within a paragraph may not conclude with a hard break, i.e. a paragraph mark, which is often the case when you copy text from the Internet or an Ascii file. You can reveal superfluous paragraph marks by clicking on the button **show/hide** in the standard toolbar (**Word 2007: Home / Show all**). You can use the same button to hide the display once again.

You can output the solution in two different forms: either as a short form with the sentences (or paragraphs) in the proper order or as a completed copy of the entire exercise.

The following example shows a paragraph of Little Red Cap and the result of the **Scramble sentences** option, **Short form** solution option.

> Little Red Cap promised to obey her mother. The grandmother lived out in the woods, a half hour from the village. When Little Red Cap entered the woods a wolf came up to her. She did not know what a wicked animal he was, and was not afraid of him.

Result for **Scramble sentences**, **Short form** solution option:

Please number the sentences correctly!

	a) She did not know what a wicked animal he was, and was not afraid of him.
	b) The grandmother lived out in the woods, a half hour from the village.
	c) When Little Red Cap entered the woods a wolf came up to her.
	d) Little Red Cap promised to obey her mother.

Solution: 1d); 2b); 3c); 4a)

Please note: For option **Scramble sentences** the text may not contain any abbreviations with dots (e.g., etc., approx.). The predefined command in Word for selecting individual sentences will interpret the dots in an abbreviation as the end of a sentence. For reasons of simplicity and speed, **Scramble sentence** uses this command to complete its task. Stated simply: abbreviation dots (periods) will result in erroneous sentence delimitation. Remedy: Delete all dots in abbreviations and then re-insert them after processing.

Just remember as well that the solutions are also present in the excercise itself, although they are not visible. They are formatted as "hidden text". If the left column appears on the screen or in the printout to be already filled out, then you must have selected to display the hidden text. Go to either **Tools, Options, View** or **Tools, Options, Print** to change this setting (**Word 2007: Word Options / Display**). If your students will work on the exercise directly on the screen or if you send the exercise to them as an e-mail attachment, you should select the entire exercise or even the entire sheet and then execute the **Remove hidden text** function provided in Zarb. If you do not do this, any computer literate student will be able to see all the answers just by clicking on **show/hide** in the standard toolbar (**Word 2007: Home / Show all**).

The following example shows you the result of the option **Scramble paragraphs by word** (with **Add text as gaps**) applied to the text above:

She out , was a from not in . what him half a woods wicked woods not know a Red village The . Little did lived the animal promised came . hour Red When afraid of mother the obey her was to entered he grandmother her Little to wolf her . Cap Cap the up and

Please reconstruct the text!

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ . _ _ _
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ , _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ . _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ . _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ _ , _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ .

This option can be used with longer texts for reconstruction exercises.

WORD CHAIN

Zarb 2 menu and toolbar.

Word chain removes the spaces between words in a selected text. This macro provides you with four options to choose from. Remove either

- all blank spaces and punctuation marks
- blank spaces only
- punctuation only
- or remove all blank spaces and punctuation marks and then insert false blanks spaces.

For better readability, the characters of the wordchain are formatted with expanded character spacing. Choose from original letters, capital letters, and lower-case letters. A fun variation is to output the text in weaving (wave-shaped) lines. The following example demonstrates one of the many possibilities in which all blank spaces and punctuation marks have been removed, the original letters (capital or lower-case) have been preserved, and output in wavy lines has been chosen:

OnceuponatimetherewasasweetlittlegirlHergrandmothergaveheralittlecapmadeofredvelvetBecauseitsuitedhersowellandshewantedtowearitallthetimeshecametobeknownasLittleRedCap

This macro is suitable for creating word identification and punctuation exercises and for teaching when to use capital or lower-case letters. You can use the several different options to control the level of difficulty in identifying words. Simply copy the source text several times and apply a different style to each copy. You can make an exercise in the original style even easier by allowing the punctuation to stand. Adding false blank spaces can make the different variations even more difficult. This rapidly gives you a whole range of exercises of varying difficulty that you can use for purposes of internal differentiation, for example. Or insert false blank spaces to create two variations of an exercise. The blanks will be placed randomly (never the same way twice) even when you use the same text. This is a simple yet effective way to prevent students from looking over each other's shoulders.

Paragraph structure, blank lines, and tab stops remain intact.

The wave-shaped output looks really neat, but it also has a few disadvantages. First, it takes a comparatively long time to produce a result. Second, you cannot easily modify it at a later time because you will disturb the uniform wave shape. The wave shape is adjusted precisely according to the average number of characters per complete line of output. If you want to produce an optically-perfect wave, you must use a non-proportional character set like Courier because all of its characters are equally wide. As soon as any formatting alters the number of characters per line, the uniform wave shape will be disturbed. Therefore, it is best to set the desired font size before processing.

In any case, you can reset a wave shape that has been disturbed by reformatting simply by running the **Wordchain** macro once again over the entire section or by applying the **Fun formats** macro with the appropriate settings.

From a technical point of view, the wave shape is created by shifting the positions of the characters relative to the baseline. Place the cursor in a wavy line and then have a look at the value for **Position** in the **Format**, **Font** dialog box (**Word 2007: Home / Font** dialog).

Warning: Be careful with complex formatting like wavy-shaped lines! Try to avoid using an excessive amount in a single worksheet and save your work often! All versions of Word, even the latest versions, commonly react to extensive formatting with the error message "Insufficient memory" and sometimes additional unpleasant statements.

MISTAKE TEXT

Zarb 2 menu and toolbar.

Starts with a selected text and generates mistakes in the text. It does this by exchanging (at an adjustable global frequency expressed in percentage) randomly selected vowels with other vowels or randomly selected consonants with other consonants. The likewise randomly selected replacement letters are also displayed as lower-case letters. The letter "y" is used as a consonant. At the end, the number of mistakes is printed underneath the text. The status bar displays the total number of letters, the number of mistakes, and the actual rate of mistakes.

In very short texts, the randomize function may produce considerable deviations from the desired rate of mistakes. It can also occur that several mistake letters appear in relatively short sections of the text or even in a single word. Due to these possibilities, you should always look through the result and make sure it is satisfactory.

Instead of inserting mistake letters in a purely random fashion, you can also specify a **solution word** whose letters will then be used as mistake letters in the exact order and style (capital or lower-case).

Only the basic forms of the Latin alphabet will be used as mistake letters. If your text is written in the Cyrillic alphabet, only the **solution word** option is feasible because the pure random variation will not work properly.

Please note: The mistakes are generated or placed randomly. They cannot be compared to mistakes that a human would make. The macro is therefore only suited for concentration exercises with a humorous touch, like: "My computer made some mistakes again. Can you help me find them?"

Normally, human errors exhibit a rather systematic behavior, stemming from various factors, e.g. the relationship between mother tongue and target language, but also from idiosyncratic reasons. Texts with mistakes that are intended for spelling exercises must therefore be carefully adapted to the learners' needs and weaknesses. Otherwise you might provoke mistakes they would not have made before.

A note on language support

Mistake text attempts to automatically identify the language of the selected text, and chooses the random letters from a matching alphabet: For most European languages the Latin alphabet suffices, but extended alphabets are used for Polish, Turkish, or other languages the alphabets of which contain many special characters. Greek and Cyrillic script are also supported, but you should be aware that Word can only identify the corresponding languages if 'keyboards' are installed for them in your Windows system settings. If this is not the case, you can select a text in Greek or Cyrillic script and set the language manually in the menu entry **Tools / Language / Set language** (**Word 2007: Review / Set language**). Run **Mistake text** afterwards and the random letters are correctly chosen from the respective alphabet.

The above said *does not* apply to Zarb for **Macintosh**, because the language support of Word X (and higher) is quite limited in comparison with Word for Windows. The random letters are chosen instead from the basic Latin alphabet for all languages, except for German, where umlauts are added. Unfortunately this undermines the usefulness of this function for exercises in Greek or Cyrillic script.

CAPITALS ONLY

Zarb 2 menu and toolbar.

Converts all letters in selected text to capitals. The German letter "ß" is replaced with "SS" as specified by German spelling rules.

The two functions for capital/lower-case letters correspond with the options in Word's standard function **Format**/**Change Case** (**Word 2007: Home / Font** dialog) and have been included as Zarb functions only to facilitate greater accessibility. The standard Word function also provides another possibility that is interesting for spelling exercises, namely the ability to start every word with a capital letter.

LOWER-CASE ONLY

Zarb 2 menu and toolbar.

Converts all letters in selected text to lower-case letters.

The two functions for capital/lower-case letters correspond with the options in Word's standard function **Format**/**Change Case** (**Word 2007: Home / Font** dialog) and have been included as Zarb functions only to facilitate greater accessibility. The standard Word function also provides another possibility that is interesting for spelling exercises, namely the ability to start every word with a capital letter.

FUN FORMATS

Zarb 2 menu and toolbar.

Fun formats lets you make fun changes to the appearance of the words or letters, or to undo those changes in the selected text section.

Under the **Random variation** option group, which works either **by character** or **by word**, you can activate the following character variations:

- Position above/below baseline
- Size
- Style
- Color

Under the **Weaving** option group you can activate **Alteration** and **Degree** of **Spacing** as well as the **Color**. When you make your selection, the **spacing** will be adjusted uniformly to the desired setting (1 to 5 point, default is 3). The **Color**, on the other hand, will be randomly varied when the selection box is activated.

In this case, the selected section can be enclosed overall with a **frame** (default). I strongly recommend using this option only when the selected section encompasses one or several complete paragraphs.

Finally, the option **Remove all funny formatting** lets you recreate the normal font format in the selected section and remove the frame if one exists. If the font size in the selected section is uniform and greater than 10 points, it will remain unchanged. If the selected section contains several different font sizes or if the font size is smaller than 10 points, it will be set to 10 points.

The wave-shaped output looks really neat, but it also has a few disadvantages. First, it takes a comparatively long time to produce a result. Second, you cannot easily modify it at a later time because you will disturb the uniform wave shape. The wave shape is adjusted precisely according to the average number of characters per complete

line of output. If you want to produce an optically perfect wave, you must use a non-proportional character set like Courier because all of its characters are equally wide. As soon as any formatting alters the number of characters per line, the uniform wave shape will be disturbed. Therefore, it is best to set the desired font size before processing.

In any case, you can reset a wave shape that has been disturbed by reformatting simply by running the **Fun formats** macro once again with the appropriate settings.

Warning: Be careful when you use complex formatting like those generated by **Fun formats**! Try to avoid using an excessive amount in a single worksheet and save your work often! All versions of Word, even the latest versions, commonly react to extensive formatting with the error message "Insufficient memory" and sometimes additional unpleasant statements.

WORD FORM EXERCISE

Zarb 2 menu and toolbar.

The **Word form exercise** macro is comparable in functionality to the irregular verb macros for German, English, and Dutch. Like those exercises, Word Form Exercise creates a tabular exercise in which only one or a few forms are provided as a starting point and the student must fill in the remaining forms. You may use as source material either a source file of your own creation (a normal Word document that contains exactly one table with word forms) or a word form table in the working document.

Word form exercise is a very flexible tool. We will employ an example to help you better understand how it works. Imagine you want to create an exercise or a test that will be based on a few difficult cases in German conjugation. The example contains series of conjugation verbs that (with the exception of "fragen") represent at least one of the difficult aspects of German conjugation. For instance, they may be very irregular, involve vowel reversals, or include a helping "e". Let's assume that you have created this table (see below) in a working document and now want to create an exercise from this.

Infinitiv	haben	sein	werden	fragen	antworten	lesen	lassen	raten
ich	habe	bin	werde	frage	antworte	lese	lasse	rate
du	hast	bist	wirst	fragst	antwortest	liest	lässt	rätst
er, sie, es	hat	ist	wird	fragt	antwortet	liest	lässt	rät
wir	haben	sind	werden	fragen	antworten	lesen	lassen	raten
ihr	habt	seid	werdet	fragt	antwortet	lest	lasst	ratet
Sie, sie	haben	sind	werden	fragen	antworten	lesen	lassen	raten

Place the cursor anywhere in this table of conjugations and start the macro **Word form exercise**. The macro will notice that the cursor is inside a table and will conclude that it is a word form table. The following dialog box lets you preserve 1, 2, 3, or all except one of the forms per series to serve as a starting point and hide the remaining forms (formatted as hidden text).

Unlike the principle form series for German, English, and Dutch irregular verbs, these series are not arranged in rows (next to each other horizontally) but in columns (on top of each other vertically). The dialog box also allows you to change this setting. You can also choose whether you want to exclude the first row and/or column from the macro processing. In this example, the first column serves the purpose of a header column so you probably wish to leave it unchanged (exclude it from processing). That is also the reason why I formatted it in bold, but that is not relevant to the functionality. On the other hand, you can require the students to find the infinitives themselves. That is why we do not consider the first row to be a header row and will include it in the processing.

The following table shows you the result with two forms provided per (vertical) series:

Infinitiv	haben		werden					lasse	
ich								lasse	
du					antwortest				
er, sie, es							liest		rät
wir									
ihr	habt	seid		fragt	antwortet	lest			
Sie, sie		sind	werden	fragen				lassen	raten

Remember that the hidden forms are actually still located in the table. If you do not like the result of random selection, you can simply repeat the procedure without any difficulty. Or, if you want to produce several different copies of the exercise, just copy the exercise several times. Then apply the **Word Form Exercise** macro to each copy individually in order to obtain different exercises each time. If you apply the **Word Form Exercise** macro to a previously created exercise, the macro will skip over the selection dialog box (select source document, select basic form) and go directly to the final step in the processing, the (re)structuring of the exercise.

If you wish to keep this table of conjugations or any other word form table for later use, just copy the table into a normal Word document (not a Zarb document!) and save this document under a descriptive name at any place you choose (but preferably not in the Zarb program directory). The **Word Form Exercise** function is not limited to processing tables that are located directly in the working document. In fact, they exhibit the same flexibility as the macros for creating principle form exercises for irregular verbs in German, English, and Dutch. In particular, it can select a form series from source files, transfer these to the working document, and then transform them into an exercise or a test. However, each source file may contain only one word form table because the **Word Form Exercise** function will only find the first table in a source document. The maximum size of the word form tables is virtually unlimited, especially when the form series are arranged in rows (horizontally). But if the form series are arranged in columns (vertically), you can save a maximum of only 31 form series in one source document because a Word table may not contain more than 31 columns.

Please note that it does not matter if a source document whose form series are arranged in columns is too wide for printing. You just want to insert selected form series on you exercise sheet and you can format this as a landscape document for printing, if needed.

However, unlike the principle form macros, **Word Form Exercise** does not know at first whether the form series in your source document are arranged by rows (horizontally) or columns (vertically). Therefore, before reading the basic forms into the selection list, you must tell the function which row or column contains the basic forms.

If you are working with a source file you created on your own, proceed as follows:

First place the cursor at the position in the working document where you want to insert the exercise. Then start the macro and select the right source document from the first dialog box. This document will be opened and the word form table contained therein will be sought. If the table is found, you will be asked to identify the row or column in which the basic forms are located. These forms will be read in and presented in the selection list in the following dialog box. Next, you select the desired form series and these will be transferred into the working document. In the final step, you specify once more the arrangement of the form series. Additionally, you specify whether a heading row and/or column should be excluded from the processing, the number of conjugation forms to show the students, and the formatting of the entire exercise.

MATCHING EXERCISE

Zarb 2 menu and toolbar.

The **Matching Exercise** macro helps you create exercises that challenge the students to find pairs of terms, vocabulary words, translations, phrases, or statements; related statements; or headings/sections. You can also design a matching exercise for math problems and solutions or pairs of math problems with the same solution. It is also possible to use graphical images or other objects.

A brief example can demonstrate what I mean by this. In this case, we will use pairs of words as the starting material. Each pair is typed into its own line, whereby the two elements are separated by a tab (A tab appears as a right arrow when you use the "display/hide" button to make the non-printed characters visible.) An alternative is to write the pairs continuously one below the other with each element in its own paragraph. It is possible to have empty lines, but these are usually a disturbance.

Tree	Branch
Cup	Handle
Door	Knob
Horse	Hoof

Or:

Tree
Branch
Cup
Handle
Door
Knob
Horse
Hoof

Select the entire thing, specify in the following dialog box whether the elements are arranged in pairs or simply one below the other, and then you get the following result:

Which ones belong together? Please connect with a line!

Tree		Hoof
Cup		Knob
Door		Branch
Horse		Handle

Lösung:

Tree		Branch
Cup		Handle
Door		Knob
Horse		Hoof

As you can see, the **Matching exercise** macro arranges the starting material in a three-column table, leaving the middle column blank. Next, the rows in the right column will be mixed randomly.

Because the mixing of the rows is truly random, it is possible that the first mixing attempt will not yield an optimal result or that it will even be the same as the starting situation. If you are unsatisfied with the first attempt, just place the cursor anywhere in the completed matching exercise and execute the function again. By the way, you can do that with any tabular exercise where you want to randomly mix the rows of the right column.

MULTIPLE CHOICE

Zarb 2 menu and toolbar.

The **Multiple Choice** macro inserts at the cursor position a preformatted and auto-numbered basic frame for a multiple choice exercise with two to seven answer choices. Make sure that the cursor is located at the beginning of an empty line before inserting the exercise. After the exercise has been inserted, text input boxes will appear automatically one after the other. Enter into these boxes the question and – based on your previous selection –

two to seven possible answers. However, you must not fill in all of the answer boxes. You can cancel the input boxes at any time and later delete or revise any excess answer boxes from your worksheet. The text you entered will be inserted into the document only after you have entered the last answer choice or have clicked on "Cancel".

Example:

1 . What is the capital of Italy?

☐   a) Milan
☐   b) Rome
☐   c) Napels
☐   d) Florence

The numbering adjusts automatically, even if you delete tasks or alter their order at a later time.

From a technical standpoint, the various basic frames are saved as AutoText in the "Zarb41.dot" (or "Zarb41") (**Word 2007:** "StartZarb.dotm") document template with the names "mc2" to "mc7", whereby the number indicates the number of answer choices. Experienced users of Word will have no problem permanently changing the appearance of the basic frame if they find this necessary. Insert each basic frame into an empty document and modify it according to your needs. Select the modified basic frame and save it as AutoText again under the same name. When saving, make absolutely sure that you have chosen the document template "Zarb41.dot" (or "Zarb41") (**Word 2007:** "StartZarb.dotm") under "Save as...".

GENERATE FLASH CARDS

Zarb 2 menu and toolbar.

Flash cards are a useful tool during all phases of a person's scholastic career and beyond. Flash cards are an ideal way to depict and learn many different things. Although Word is very good at assisting with the preparation of envelopes and address labels, it does not have a convenient method of entering and printing flash cards. This program is intended to fill in this gap.

How to Proceed

By clicking on the **Generate flash cards** button, you will first open a dialog where you can choose the desired fomat: DIN-A6 (four cards on a DIN-A4 sheet in landscape format), DIN-A7 (eight cards on a DIN-A4 sheet in portrait format), or DIN-A8 (in print document: sixteen cards on a DIN-A4 sheet in landscape format; for entry we use a DIN-A5 sheet in portrait format with only eight cards for better usability). On each of the ten pages of the new document, you can enter the content of four or eight cards (depending of the chosen format): Enter the information for the front side in the left hand column and the information for the back side in the right hand column. Save the document under a descriptive name anywhere you like.

Zarb provides three individual templates which are attached to flash card documents, as opposed to the "Zarb41.dot" (or "Zarb41"), which is attached to normal Zarb documents. Depending on the chosen format the attached template is one of the following: "ZKartA6.dot" (or "ZKartA6"), "ZKartA7.dot" (or "ZKartA7"), or "ZKartA8.dot" (or "ZKartA8"). These templates contain the table structure for the flash cards as well as several macros, which can be accessed through a separate toolbar.

The limitation to 40 (or 80) cards is based on general considerations of stability, organization, and ease of using Word documents. These considerations are particularly important if you are using many graphical objects. If your flash cards contain only simple text, there is little reason not to use larger flash card documents. If you need a larger document, always add complete pages. To do this, select the entire last page while it is still empty (including the line underneath the table) and copy the contents of the selection (**Edit**, **Copy** or the **Copy** button in the **standard toolbar**) (**Word 2007: Home / Copy**) to the clipboard. Then place the cursor in the line underneath

the final table row and paste the contents of the clipboard back in place (**Edit**, **Paste** or the **Paste** button on the **standard toolbar**) (**Word 2007: Home / Paste**). You can repeat this procedure several times if necessary. It is best to add two new pages at a time so that the total number of cards possible will match the size of the print documents. Just keep in mind that the document will become less manageable as it grows in size.

Toolbar and Menu

A document linked to one of the above-mentioned document templates contains an additional toolbar and menu with the name "Kartei". This is where you can select the additional functions for printing and formatting flash cards. If the toolbar is not visible, you can activate it under the **View** menu, the **Toolbars** entry.

Word 2007: Zarb provides a tab for Zarb flash cards documents.

Possible Contents of Flash Cards

The "flash cards" in Word can accept not only text, but also graphics, formulas, and diagrams. However, you cannot use tables because tables are already used to represent the "flash cards" and so-called nested tables (tables within tables) are only possible in the most current versions of Word. Regardless, this function is not designed for use with nested tables.

You can format the contents of the cards in any way you please, but make sure that your contents do not extend past the flash card frame (table cell). Do not change the original size of the table cells because this would throw the front side and back side of the flash cards out of alignment when printed.

Embedding Graphical Objects

When you insert graphics, always make sure that the object is embedded in the text instead of being placed in a special layer above the text. To ensure this, deactivate the option **Place over the text** under the **Insert**, **Object...** menu.

If, despite doing this, a non-embedded object is inserted, you will recognize this by the anchor points that are probably located at the beginning of a left-side cell. You can then select the object and embed it in the text using the button **Embed object** (in the toolbar or **Flash Card** menu). The object will then be placed precisely on the anchor point, but you can easily move it to where it belongs. If you start the selection program (**Select flash card** in the toolbar or in the **Flash Card** menu), it will check if the document contains non-embedded objects and will then ask you to embed those items before taking any further action.

Vertical Centering of Flash Card Contents

You can arrange the contents of your cards precisely in the middle of the card (table cell). This works not just in the horizontal direction, but vertically as well. Since vertical alignment is somewhat complicated, the flash card program provides a specialized function (**Vertical centering / Align top** in the toolbar or in the **Flash Card** menu). This function vertically centers the contents of the table cell in which the cursor is located. If you have selected several table cells, it will center the contents of all the selected cells. The function can also work in the opposite direction: If the contents are already centered vertically, the centering function will be removed, thereby aligning the contents normally at the top of the cell.

Vertical centering of the contents is particularly useful with simple contents like vocabulary words. The procedure would be approximately as follows:

- Simply enter all vocabulary words (left column) with their translations (right column) without any formatting,
- Then select the entire document (**Edit**, **Select All**) (**Word 2007: Home / Select / Select All**),
- Then select a suitable font type and size,
- Click on the **Center** button (horizontal centering) in the formatting toolbar (**Word 2007: Home / Center**),
- And then finally click on the **Vertical centering** / **Align top** button in the toolbar or in the **Flash Card** menu.

This is a very quick way to create uniform and attractive flash cards. But always make sure you check over the entire result before attempting to print!

Vertical centering is not suitable when you place a header on every flash card in order to designate the card series or subject, for instance, because then your header line would no longer be on the upper edge of the card, but instead somewhere further below.

Selecting for Printing

If you have entered and formatted all of the cards in your current series, you can select all or some of the cards in the document for printing. To do this, use the function **Select flash cards for printing** (toolbar or **Flash Cards** menu). I think you will find the associated dialog box to be self-explanatory. In order to achieve a better view, you can also move the dialog box around the screen as needed. We need to mention only a few peculiar things here:

- When you press the **Add All** button, only the cards that are not empty will be selected. In other words, cards whose front sides are empty will not be selected.

Printing

As soon as you click on the **Done** button, the required print documents will be created. Each of these documents has two sides (the front and back side). In the print documents, the front and back sides of the flash cards are automatically arranged so that they match up with each other after printing. The finished print documents will have the title "Flash Cards Print Document [No.]" and will be numbered consecutively. The **Window** menu lists all open documents and all print documents that have just been created. From there you can activate and then print the document you want.

Some printers can print on both sides of the paper, but in most cases you must first print out the front side, then reinsert the paper (it may be necessary to turn the paper around depending on the printer), and then print out the back side. When printing flash cards, always use thick paper or thin cardboard so the back side is not visible through the paper from the front. If necessary, you can also print the front and back sides on different sheets of paper and then glue these sides to each other to form a card with two sides. Or – to make very stable cards – glue the front and back sides to opposite sides of a piece of cardboard. Try a few different things to see what works best for you!

ZARB MANUAL

Zarb 2 menu and toolbar.

The function **Zarb manual** opens the Zarb operating manual in Word (the document you are currently reading). This document has the file name "Zarb41Manual.doc" and can be found it in the Zarb program directory on your hard drive.

ZARB OVERVIEW

Zarb 2 menu and toolbar.

The file "Zarb41Overview.doc" in the Zarb program directory contains a very useful condensed outline of all Zarb functions on two pages. The macro **Zarb overview** opens the document in Word and suggests to print it.

ZARB INFO

Zarb 2 menu and toolbar.

The macro **About Zarb** shows copyright information, our company address, and the address of our website.

Further information about Zarb

Conception and History

The idea of Zarb is rooted in long years of teaching "German as a Foreign Language" at institutes of adult education and in my interest in computers and programming. Many years ago I first attempted to create worksheets and tests for the classroom with the help of a word processing program. I soon realized that many common tasks could be automated. By this time I already had some experience with computer programming and had a good idea of what would be possible if only word processing programs took into account the needs of teachers.

Over the years, various minor programming projects confirmed my hopes and proved that, in general, it would be possible to implement some very helpful tools. But my homemade tools did not work within my standard word processing program. As a result, the task of copying existing texts (typing, formatting, and printing with the help of the word processing program and then adding "special treatment" in my own program) was far too bothersome and discouraging, especially considering that computers of the age did not offer a clipboard function. The thought of creating an entirely new word processor, just to allow for the functions I desired, was even more daunting.

This meant that creating worksheets and tests for the classroom was still much faster with scissors, correction fluid, glue, and a copier than with the help of a computer. On the other hand, the results were naturally not as neat, appealing, and professional-looking as the sheets that came out of my printer.

It was at this time that a fellow teacher with whom I had often discussed this situation told me that the word processor "Word for Windows" by Microsoft (at the time only in version 2.0) comes with a very flexible integrated programming language. Although it took a little while longer before I started to explore Word's programming capabilities, I was immediately enthralled with the possibilities. Finally I had a state-of-the-art word processing program that offered a variety of useful functions, many of which have since become standard features of word processors **and** the opportunity to expand those functions in almost any way desired!

Finally, in the summer of 1993, I started to work seriously on Zarb, or at least as often as teaching obligations and family duties permitted. After some fellow teachers and I evaluated a test version (about half the size of the first final version), I began a thorough revision and expansion. **ZARB 1.0** was first published in March 1994.

More than two years later, in June 1996, I introduced version 2.0 with twice the number of functions and, hopefully, much greater user-friendliness. Since the first introduction of Zarb, the idea of integrating teacher-specific functions into a word-processing program has taken hold among many users.

The success of version 2.0 encouraged me a short time later to leave my teaching career and dedicate all my efforts to the – increasingly international – marketing of Zarb. I was able to generate a Macintosh version of the program as well as add the English-language version. And of course, adapting the program to work with new versions of Microsoft Word is a never-ending task. For a while, these efforts left little time to further develop the functionality of Zarb. The business side of the Zarb project was consuming nearly all of my energy. Fortunately, that changed in April 1999 when I was able to hire my first full-time employee, which freed me to restart creative development of the program.

The result of my efforts came in the form of **Zarb 3**, which again offered a number of new functions. The vast majority of existing macros have also been thoroughly revised and expanded with new options. The same is true for version **Zarb 4.0**, which was published in October 2006. Zarb 4.1 (May 2007) was thoroughly adapted to the new user interface of Word 2007 and its underlying software changes. I can proudly claim that, since its introduction and up to the present day, there exists not a single program worldwide that is comparable to Zarb in concept, range of functions, and user-friendliness.

I truly hope that this work aid will save you just as much time and bring you just as much as enjoyment during the creation of attractive worksheets as it did for me when I was still a teacher. It is not just the fact that your computer

can make you so much faster than working with traditional methods (correction fluid, scissors, glue, copier). Many exercises, like the various puzzles, would not be possible within a reasonable amount of time and effort if Zarb were not there to help.

THE AUTHOR

Maybe you will find it interesting to learn something about the person who designed this toolbox for teachers. So allow me to share some information about myself, as follows:

- Hans Zybura, University degree in Sociology
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- Former teacher, currently software developer
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Over the years, many users have given me materials like verb tables or foreign-language word lists and many more have communicated suggestions and needs, critical remarks, and encouraging praise, all of which are the stimulus I need to keep making **Zarb** better and better. So many friendly helpers have stood by my side in this way that I cannot even attempt to name them out of fear of forgetting someone.

But what good is even the best program if no one knows it's available? Even better than mouth-to-mouth promotion is a demonstration or even instructions on how to use it. The many professors at universities and teachers, who have integrated Zarb into teacher's education or their continuing education courses play an invaluable role in the distribution of **Zarb**. I would also like to thank these teachers with all my heart.

Thank you to all of you!

Zarb

Teaching Toolbar

Version 4.1

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