

PRONOUNCING AND READING MACEDONIAN: AN INTERACTIVE TUTORIAL

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Abstract. The first interactive tutorial for teaching Macedonian pronunciation and reading was created in 2002-2003 as a technologically enhanced means of alleviating the scarcity of pedagogical materials for Macedonian language instruction on a phonological and orthographic level. The project was realized with the help of the Slavic and East European Resource Center, operated jointly by the University of North Carolina at Chapel Hill and Duke University, and with the technological guidance of Dr. Curt Ford at the University of South Carolina. This article highlights several features of the tutorial, elaborating on the pedagogical principles and the use of multimedia in language learning on which the tutorial is predicated. The highlighted features, a few of which are illustrated in several screenshots, include audio files of two native speakers, animations of the cursive letters of the alphabet, authentic graphics and texts, notes for speakers of other languages, and others. The tutorial is available for download online at <http://www.unc.edu/~bbiljana/MKD_tutorial.html>.

Beginning in the summer of 2002, the author, together with Dr. Curt Ford, began work on the project of creating an interactive tutorial for teaching Macedonian phonology and orthography. The Macedonian tutorial was originally conceived merely to follow in the footsteps of a tutorial for Bosnian/Croatian/Serbian that was developed by Dr. Ford, but instead the two tutorials contributed ideas to each other, which resulted in the enhancement of both tutorials. For the Macedonian project, the author contributed the text and Dr. Ford created the scripts for its successful execution.

This paper aims to present and highlight many of the features of the tutorial in light of recent developments and research

in the areas of multimedia and computer-assisted language learning (CALL).

1. Purpose of the Tutorial

The interactive tutorial on Macedonian phonology and orthography was created with the aim of presenting an authoritative and technologically enhanced means of alleviating the scarcity of pedagogical materials for Macedonian language instruction on the most basic phonological and orthographic level.

Finding resources for the teaching and studying of any less-commonly-taught language (LCTL) is problematic, partly because there is a scarcity of materials for teaching these languages, and partly because the materials that are available are not up-to-date with technology and pedagogical "best practices." This shortage is exemplified in an informal comparison of the availability of materials for teaching English as a Second Language (ESL) and for teaching Macedonian. An Internet search for the phrase "ESL tutorial" yields approximately 293 results, whereas for "Macedonian tutorial" approximately 40, all pointing to the same website <www.worldlanguage.com>, which has been translated into 40 languages, and hence the 40 results all point to one sole resource for learning Macedonian. Searching for the phrase "teaching ESL" as opposed to "teaching Macedonian" yields similar results – 16500 in the first case, and 42 in the second.

The problem of the scarcity of materials for studying Macedonian in particular is even more apparent when we consider that a person wanting to learn Macedonian by means of self-study has very few choices: these include Christina Kramer's book and accompanying CD, *Macedonian for Beginning and Intermediate Students*, Kim Gareiss' instructional materials based on the Macedonian film "Before the Rain," and Victor Friedman's *Macedonian Grammar*, which is available on the website of the Slavic and East European Language Resource Center (SEELRC). Other

than this handful of resources, no other materials are available in English for learning the Macedonian language in the U.S.¹

Secondly, of these materials, only Friedman's grammar is available online, thereby having the ability to reach a wider audience.

Thirdly, Macedonian phonology and orthography, among the first tasks that confront a language learner, are not the explicit foci of the first two materials. While Friedman's grammar does address phonology explicitly, the terminology used is often difficult for nonlinguists to read, a reflection of the purpose of the grammar, as stated on the SEELRC website:

This set of reference grammars has been designed for advanced-level language users and linguists to compare semantic categories across languages.²

Due to the fact that the grammar is not intended for beginning language learners, enthusiasts of Macedonian can become discouraged in their attempts to use it. Furthermore, there are no exercises available, so learners cannot practice and test their understanding of the concepts.

Fourthly, Friedman's materials are text-based. Gareiss' video-based materials are designed to be used with the film, a strategy proven to be an effective tool for language teaching. However, studies summarized by Paul Brett at the University of

¹ Several books are excluded from the list, since they are very rarely available in the U.S. These include: Krum Tošev and Dragi Stefanija's *A Textbook of the Macedonian Language*, published in 1965 in Skopje, which is available in only 36 libraries world-wide according to an OCLC FirstSearch query; Ruza Panoska and Aleksandar Dzukovski's *Handbook for the Study of the Macedonian Language: Beginners' Course*, published in 1971 in Skopje by the Seminar for Macedonian Language, which is available in ten libraries world-wide according to an OCLC FirstSearch query; Ilija Čašule's *Let's Learn Macedonian*, published in 1988 in Sydney by Macquarie University Press; and others which, according to OCLC FirstSearch, can be found in three or fewer libraries world-wide.

² From the introduction to the SEELRC online grammars at <<http://www.seelrc.org/grammars>>.

Wolverhampton indicate that multimedia is more effective than any of the other language teaching tools by themselves – possibly because of the instant feedback and gratification provided, which support the learner's interpretation of messages, and stemming from that, success may also be attributed to the gain in efficiency. Specifically,

The results of learners' performance on tasks showed more effective comprehension and recall while using multimedia than either audio or video plus pen and paper. (Brett 189)

Kramer's book is accompanied by a CD-Rom containing some audio and video sources, but, as I previously noted, the main focus of the materials is not Macedonian phonology.

My survey of the availability and characteristics of the tools for teaching Macedonian is not meant as a critique of these already existing and revolutionary materials, but simply to show that this tutorial was conceived to fill one of the gaps of instructional materials for Macedonian without infringing upon what has already been done. In fact, it can be used in preparation for or as a supplement to these materials.

The next question that has to be addressed is whether a need is present for this multimedia type of instructional material. Judging by email the author has received from people searching for this type of materials for Macedonian, the answer is "yes." In the U.S. and Canada there are a handful of institutions that offer Macedonian language instruction, and some only during the summer or during alternating years (University of Toronto, University of Chicago, University of North Carolina-Chapel Hill, Arizona State University and its Critical Languages Summer Institute, and the Summer Workshop in Slavic, East European and Central Asian Languages at Indiana University).³ But there are many eager learners of Macedonian outside of these institu-

³ I am grateful to Elena Petroska for the information regarding Indiana University and the Čašule textbook mentioned in footnote 1.

The virtual world is one of the ways to reach these learners. Some of them have contacted me in search of materials to use in the learning of Macedonian, and I have not been able to find adequate materials for them. Their preference for materials available on the web and accessible to them has been a handicap on their study of Macedonian. An example of such interest is an email I recently received from an Englishman trying to learn Macedonian in Macedonia, who had searched the Internet for possible tutorials. He wrote:

I do find it very surprising in a culture so keen to retain its identity that so few materials for learning Macedonian are available.⁴

To meet the explicit needs of learners such as this Englishman, this tutorial is downloadable from the web, making it accessible to anyone interested in using it for self-study as well as in the classroom. To best address their needs and following the rapidly improving technology for CALL, this tutorial is a multimedia project. In the next portion of the paper, I illuminate why we have chosen this format as well as its advantages and drawbacks and how we have coped with them.

2. Multimedia

It is no secret that motivation for learning can be influenced by the type of pedagogical materials used. Multimedia, as the "computer-delivered combination of a large range of communications elements" (Brett 171), including text, graphics, sound, etc., has several strengths that work towards making it the preferred learning tool of the future, especially with the growing availability of computers and with rapid technological advances.

One of these strengths is exactly that combination of communication elements, which, as previously stated, has an increased power and greater effectiveness than each of the ele-

⁴ Private correspondence with the author.

ments alone. According to Paul Brett, again, the sum is greater than its parts. In addition, according to Australian educator Brian McCarthy nowadays "students are much more at home with a keyboard, mouse, monitor, joy stick and floppy discs than they are with pencil, paper, and books." McCarthy continues to say that

[I]t would be difficult for language teachers not to be aware of the extent to which computers are used in other subject areas or to acknowledge their potential for personalized instruction and their capacity to focus learner attention and to stimulate creativity and imagination. (<www.cltr.uq.edu.au/oncall/72mcar.htm>)

Furthermore, multimedia allows all types of learners to be engaged in whatever learning strategy is most natural for them. Auditory learners can focus on audio, visual learners on images, animations, or video, and haptic or experiential learners can interact with the material through writing or recording software. In designing the Macedonian tutorial as a multimedia resource we have included elements that cater to each of these three learning styles. The tutorial features pronunciation samples from two native speakers, animations of letters and words, graphics, as well as exercises where haptic learners can practice by doing.

Students of the less commonly taught languages (LCTLs) are rarely afforded the opportunity to hear more than one speaker of the language, unless they travel to the country where it is spoken. And yet, according to Maxine Eskenazi, when training pronunciation, as in the Macedonian tutorial for example, "learners must hear many different native models." (Eskenazi 62) A female learner may have difficulty imitating a low male voice and a male learner may exhibit similar difficulty imitating a high female voice. Therefore "it is preferable to offer the user a choice of voices to pick from." (Eskenazi 73) Furthermore, various speakers may use various dialects, and at times it is important to familiarize the learner with how these dialects sound.

Therefore the Macedonian tutorial features a female and male voice from different areas of Macedonia. By clicking on the field "Speaker 1," the user can alternate between hearing the pronunciation of only Speaker 1, only Speaker 2, or both speakers in order. One can certainly tell a difference between the two speakers, as for example in the height of the vowel /e/. This is a phenomenon that would be difficult to reproduce and show clearly without the opportunity to hear the pronunciation of both speakers back to back.⁵

The tutorial includes animations of each capital and lower-case letter of the Macedonian alphabet in cursive. For each one of these 62 animations, about 30 frames were constructed, which means a total of around 1860 frames were created to animate the different letters. The audio and animations are seamlessly integrated with text and exercises throughout the tutorial, as can be seen in illustration 1.

⁵ Everyone at the conference presentation of the tutorial easily noticed the difference between the two pronunciations and was complimentary of the dialectal variety offered by the tutorial.

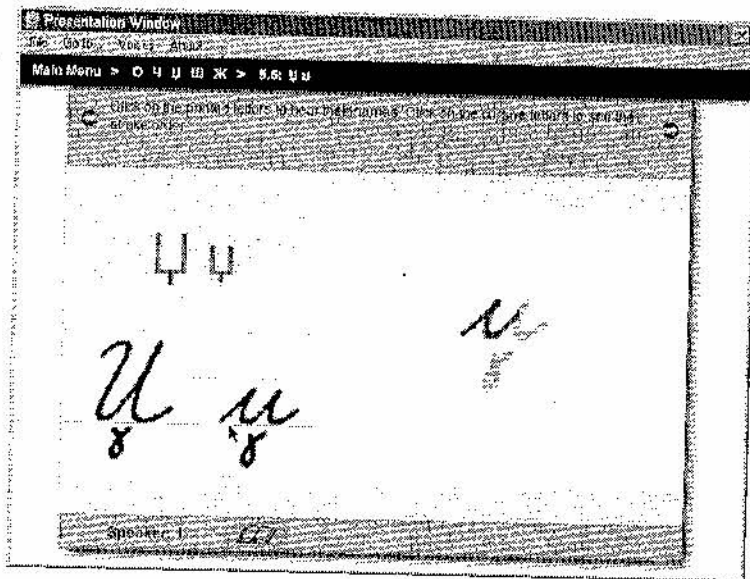


Illustration 1. A sample animation in the Macedonian tutorial that is activated by clicking on the cursive letter on the left.

The sound files and animations allow for observation of the phenomena both in isolation and within morphological and syntactical contexts, which is one of the current “best practices” in language education. For example, two entire texts have been included both in print and cursive script and accompanied by audio.

Another recent focus of language pedagogy is on “competitive competence,” i.e., on training the students to communicate in the language, which has resulted in the discomfort of introverted students in the language classroom. The Englishman I used in an earlier example expressed this sentiment as one of the reasons he has not engaged in studying Macedonian.

I am a terrible language learner myself and not too keen on classes (forced extroversion gets me down – I am English).⁶

Multimedia provides an answer. Learners can interact with the material without the pressure of classmates, that is, in private, which lowers their “affective filters” (of the type: “what will the group or teacher think of me?”), bringing about a more comfortable and effective learning environment. According to McCarthy,

[T]he electronic image is ephemeral, even when dealing with written discourse, and in this respect much more resembles the spoken language than does the printed page of the textbook. Mistakes are not set in concrete. Unlike wrong responses written on a blackboard, they are not monuments of one’s ignorance to be gazed upon by one’s peers. (www.cltr.uq.edu.au/oncall/72mear.htm)

The learners are also completely in control, responsible for their autonomous learning and with the power to change variables such as speed or order of presenting material, as well as having the opportunity to have an element repeated as many times as deemed necessary. Since the device doing the repeating is a computer and not the human voice, the input is always identical (a feature unable to be reproduced by the human voice in most conditions) and again there is no embarrassment for the learner. All of the audio and animated files utilized in the Macedonian tutorial have this feature of repeatability. By allowing the students to navigate their own path simply by pointing and clicking a mouse, they are provided a fair amount of choice, control and interaction. (Warschauer 2-3) In addition, due to the use of multimedia, “self-paced interactive learning environments” are created, which promise to significantly enhance language learning. (Ehsani 46)

⁶ Private correspondence with the author.

However, while these benefits of multimedia are significant, no resource is perfect and there are drawbacks, one of the most obvious ones being that there are technological limitations. For example, programs cannot give feedback to free speech and long writing samples. This is not relevant for our tutorial, since these elements are not within the scope of the project. Other disadvantages, in particular financial ones are more relevant. Start up and development costs for CD-Roms are often quite significant. The authors and developers of the Macedonian tutorial have been fortunate to have the project funded by the SBEELRC at the University of North Carolina at Chapel Hill and Duke University. For these reasons, free CD-Roms and free download from the web are provided with the stipulation that the material is used for educational purposes only. This ability is one of the most important for the appeal of the tutorial to students worldwide.

Other disadvantages of multimedia include the so-called "variable or invisible" element and technical software problems. The variable element stems from the inability to predict the amount of learning material included in a tutorial. In other words, while the scope of a book is obvious, judging by its thickness before it is even picked up; the same cannot be said about the material on a CD-Rom. However, there are tools that can be used to improve on this "invisibility." The Macedonian tutorial has addressed this in several ways. A portion of the introduction explains the structure of the tutorial and the menu features a detailed index and sequence of elements covered, as can be seen in illustration 2. Furthermore, each lesson is constructed consistently; therefore there is a predictable structure to the lessons in terms of the amount of material presented. Such consistency also facilitates more efficient learning.

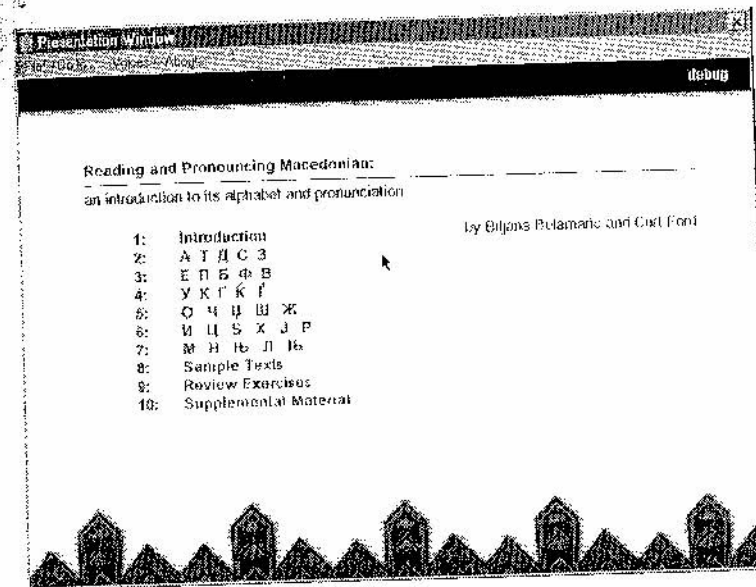


Illustration 2. The menu of the Macedonian tutorial

Software problems may range from compatibility with the platform or system (Windows or Macintosh) to problems with video and audio players since players like computers have many configurations. The Macedonian tutorial is currently only available on Windows, but the authors hope to make it compatible with Macintosh in the near future. As for other problems, the demo of the tutorial has a "debug" button, which, when clicked, sends the authors a message describing the problem including the specific location from which the user sent the message, so that the problem can be addressed and resolved immediately and effectively. The debug button is present on every page of the tutorial, as is showcased in the illustrations incorporated in this text.

The last topic that needs to be addressed when discussing multimedia projects is copyright law. When subscribing to a unified cultural-linguistic approach to language teaching relevant cultural information and documents must be included. Such

items are often copyrighted, and often with international materials, copyright laws are not straightforward, to say the least. One might think that because the tutorial is available for free and is not earning anyone profit, it is not subject to copyright provisions. However, research has showed that this is not the case. For this tutorial, we used two texts: a Macedonian folk tale and the poem "Denovi" by the renowned Macedonian poet Kočo Racin (1908-1943). Both texts were approved for use because the first was a folk tale, i.e., it is public domain, and the latter was by a poet who had passed away more than 50 years ago, meaning that it was also in the public domain. Translations of these works could have been problematic from the standpoint of copyright law, and therefore we had to utilize our own translations. Copyright became an issue for one of the exercises at the end of the tutorial, for which I wanted to use pictures and audio from famous cultural and political personalities in Macedonia. Even to use their pictures, I had to obtain permission by contacting these people. I was indeed able to do so and would like to use this opportunity to thank Milcho Manchevski and Vlatko Stefanovski for their cooperation and support of this project.

3. Audience

The tutorial is meant for a broad audience, including beginning and intermediate students of Macedonian with no background in any other Slavic language, and students who have had experiences with the phonology of other Slavic languages. The tutorial draws on the previous knowledge of the latter group of students by paralleling Macedonian phonological traits with those of Russian, Bosnian/Croatian/Serbian, and Bulgarian and by presenting similarities and differences that may not be obvious even to advanced speakers of those languages. These features are addressed in notes that explain, for example, the differences of the place of articulation of the dental "d" in Russian as opposed to Bosnian/Croatian/Serbian and Macedonian, of the palatals "č" and "dž" in Bosnian/Croatian/Serbian as opposed to Macedonian,

or the orthographic differences between a Russian Cyrillic and a Macedonian Cyrillic capital "D." Since this project is multimedia, the notes are accompanied by real world examples and audio for instant comparison. Illustration 3 shows how such a note is incorporated on the page of the tutorial.

The tutorial was intended to be appealing to linguists and yet accessible to nonlinguists. With this in mind, the presentation of sounds and symbols in Macedonian is based on the concept of voiced/voiceless consonant pairs, rather than on other alternatives, such as starting with easier or more recognizable letters and working towards harder or less recognizable letters, as some introductions to the Macedonian alphabet have done. An additional reason for the conscious choice to base the tutorial on voiced/voiceless pairs was the ability to make each lesson the same difficulty, thereby aiding the transparency of the lessons of the tutorial. In each lesson there are no surprises, since the user can expect the same level of difficulty as in the previous lesson. The overarching linguistic organization should not discourage nonlinguists, since in explaining pronunciation, nonlinguistic terminology is used and ample examples are given.

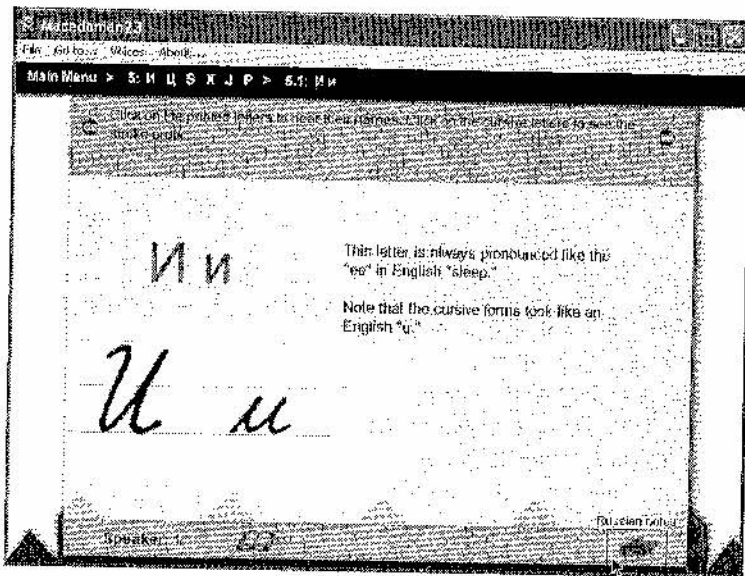


Illustration 3. Notes for speakers of other languages are incorporated throughout the tutorial.

4. Other Features

In addition to the sixty-four animations of the cursive letters of the alphabet and over 800 pronunciation samples by two native speakers of sounds, words, and entire texts, the tutorial also features a brief language history timeline with events annotated with text and pictures, and a brief introduction to Macedonian language stress patterns. The inclusion of two authentic texts, authentic cultural graphics, maps, and pronunciation samples, which are incorporated throughout the tutorial and in the review exercises, gives students the opportunity to interact with elements of Macedonian culture and adds to the tutorial an element of authenticity. Authenticity is increasingly more advocated and put on the forefront of language teaching as studies have shown that the links between language and culture are strong and crucial.

The tutorial is based on comprehensible and meaningful input for the learners, which is an essential feature for the effectiveness of any tutorial. Additionally, according to Rosangela Silva, a reviewer of language tutorials for Portuguese, it is essential for learners to "be able to compare their previous grammatical knowledge of one or more languages to the new language."⁷ This view was also affirmed by Stephen Krashen's (1985) theory of efficient comprehensible input, *i+1*, which means that the input should always be one increment higher than the current level of the learners.⁸ The tutorial addresses these principles by building on previous grammatical knowledge of the learners with the inclusion of notes for speakers of other languages, as well as by incorporating the knowledge of each lesson in the subsequent lessons and in the exercises. For example, in each lesson there are 6-7 letters introduced one by one, with two screens for each letter:

1. A screen that features the capital and lowercase print and cursive letter, with options to read a short paragraph describing the sound/letter, noting any peculiarities, to hear the pronunciation of the letter by the speaker(s), and to see how the letter is formed in cursive;

2. A second screen with sample words that incorporate the letter in various positions of the word, with options to click on the words to hear them pronounced, as well as to click on the "dictionary" icon and see their translation into English.

⁷ Rosangela Silva, "Computer-Aided Instruction of Foreign Languages: The Case of Beginning Brazilian Portuguese," paper presented at the National Association for Self Instructional Language Programs (NASILP) conference, Washington, D.C., October 1999.

⁸ Stephen D. Krashen, *The Input Hypothesis: Issues and Implications* (London: Longman, 1985).

As the alphabet is incrementally introduced, each unit incorporates the knowledge of previous units in the sample words used on the second screen for each letter. At the end of each lesson there are audio exercises like the one seen in illustration 4. Correct answers and feedback are immediate and provided before moving on to another item. At the end, the user has the possibility to review the items that caused difficulty. These principles follow the practices of allowing learners to work through the exercises as many times as needed, focusing on the areas most in need of work, and always showing the learners the correct form or answer at the end.⁹

The ability to seamlessly incorporate previous knowledge is one of the benefits of preparing materials for beginners – the introductory information is naturally used as a basis on which to build further. In this tutorial, the integration of segments culminates in the exercises at the end of the tutorial, which draw on all elements introduced throughout and integrate cultural information, as can be seen in the example of a matching exercise between the pictures and names of famous Macedonian cultural personalities from a wide array of topical areas, such as Krste Petkov Misirkov, Kočo Racin, Blaže Koneski, Esmā Redžepova, Milco Mancevski and Vlatko Stefanovski. When clicking on the picture, the name of the person is heard, which the learner then uses to match the name to the picture. When a correct match is achieved, a paragraph appears where the learner can read about the person's life and significance to Macedonian culture.

Lastly, as can be seen in the illustrations provided throughout the text, the screen contains only that information immediately relevant to the task at hand, with supplementary information concealed but readily available. This is known as hypermedia and is another current "best practice" in education.

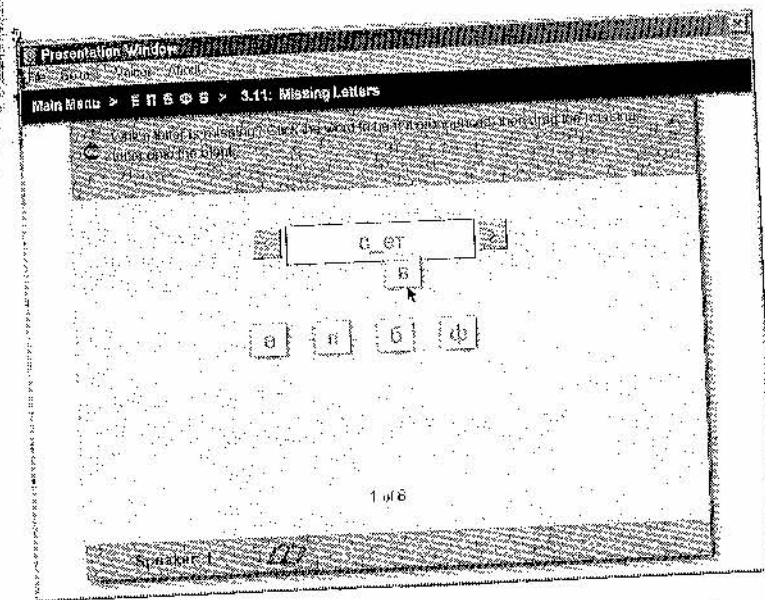


Illustration 4. A sample exercise at the end of a lesson, where the student can click on a word with a missing letter to hear the word pronounced, and then can choose from a set of letters introduced in the lesson (by clicking and dragging) to fill in the missing letter.

5. Distribution

The tutorial is available for download, free for educational purposes, at <http://www.unc.edu/~bbiljana/MKDtutorial.html>. By the end of 2003, it will also be available for download at the website of the Slavic and East European Language Resource Center, <http://www.seclrc.org>. From the websites where the tutorial is available for download, users are encouraged to email the authors and developers with comments, questions, and suggestions. Having the opportunity to easily download the tutorial for free from the Internet is fundamental for catering to the "global learner," and having the possibility of instant feedback from

⁹ McCarthy <www.cltr.uq.edu.au/oncall/72mcar.htm>.

the developers is crucial for accommodating the "students of the new millennium."¹⁰

Looking to the future of teaching languages and particularly the LCTLs, the author agrees with Silva when she points out, "Technology won't replace teachers; but teachers who use technology will replace the ones who don't."¹¹ The interactive tutorial was designed to assist in that transition. The author hopes that this introduction to Macedonian phonology and orthography will be a useful and helpful tool for all teachers and learners that it aims to reach.

The author is grateful to everyone who contributed to the tutorial in every way and for the valuable comments and suggestions at the conference.

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¹⁰ Diana Oblinger, "Boomers, Gen-Xers, and Millenials: Understanding the New Students," *Educause Review* 38 (July/August 2003):40. For more traits of the millennial student, consult Neil Howe and William Strauss, *Millennials Rising: The Next Great Generation* (New York, NY: Vintage Books, 2000).

¹¹ This quote comes from Rosangela Silva's 1999 NASILP conference paper, which was originally available on-line. The Internet address for Silva's paper is no longer active.

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