



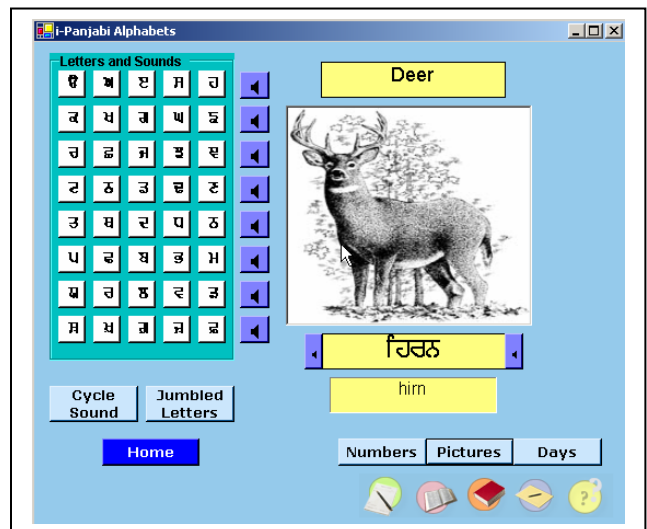
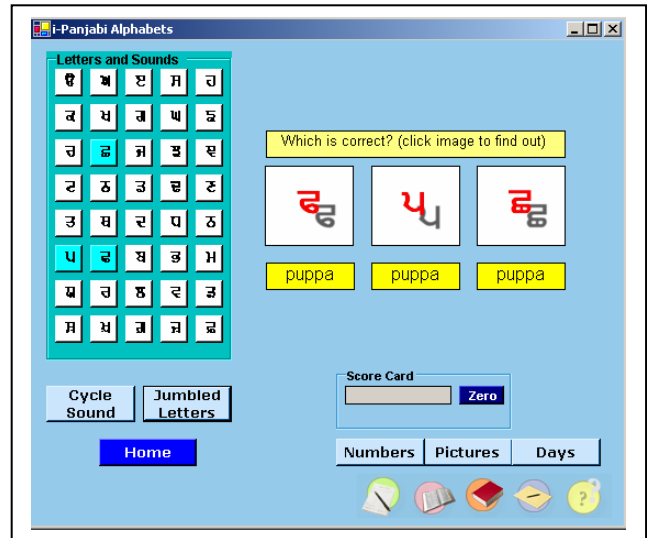
ALPHABET:

This is one of the main modules designed for the beginner and the intermediate learner. The screen shot shows the many options that the User can use to explore and learn the shapes and the sounds of the alphabet letters. Here the User can scan through the entire alphabet one letter at a time or in groups of five. Each letter symbol can be displayed and a sound-file of the letter can be played.

Also included in this module are Punjabi words arranged alphabetically and in three categories of difficulty: easy, medium and difficult. The English meaning of the words is provided as well as the Romanized spelling. The words in the 'easy' category come with sound files so the

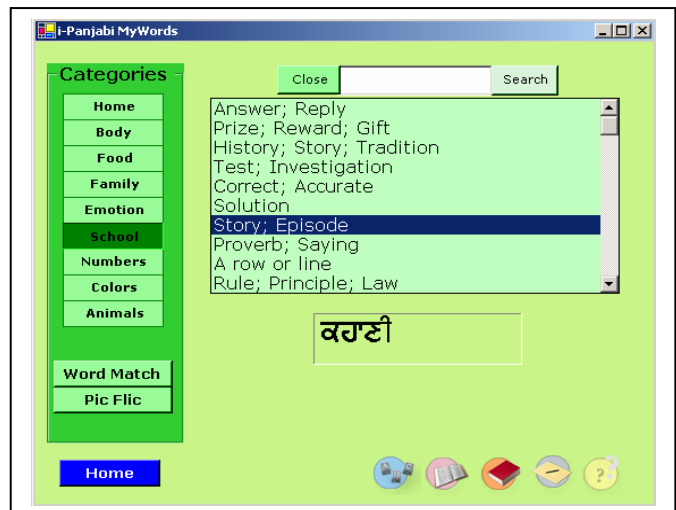
User can start the process of learning pronunciation. Learning activities include playing 'Spot-The-Random-Alphabet' game where the computer challenges the user to recognize randomly chosen letters.

Other activities include the use of pictures to help in associating Punjabi & English words. Again, Romanized spellings help the beginner with basic phonetics. Learning the days of the week and counting numbers (in English & Punjabi) up to a hundred rounds out the activities in this extensive module.



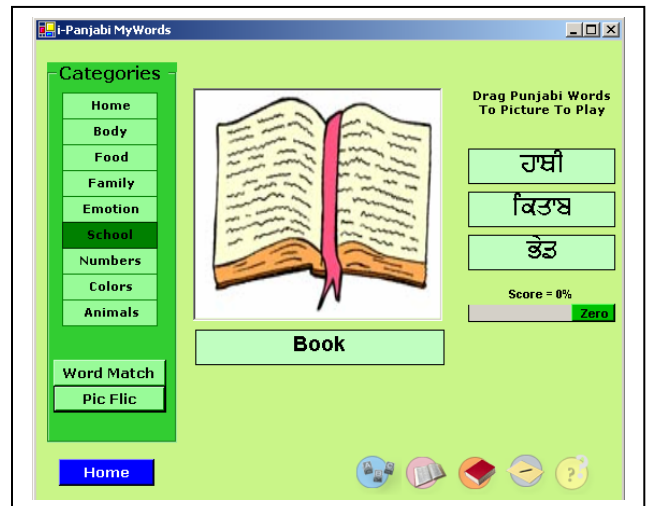
VOCABULARY:

The 'vocabulary' module is also targeted primarily at the beginner and the intermediate-level student. This module also includes several distinct activities. For the main activity, that of acquiring and familiarizing oneself with Punjabi vocabulary, we employ the technique of categories, in which one gathers and exposes to the student a list of commonly used words. We use the more common categories such as 'Home', 'Food', and 'Animals' to allow the students to adjust to their own level of familiarity and difficulty. We also introduce some uncommon categories such as 'Emotion' for the more advanced student. When a user



selects one of these categories, the program searches the database and returns those words that match that category and the results are presented in English. Each one of the returned words is clickable and provides the Punjabi equivalent word or phrase. For many of these words a sound file is included so that the user may listen to the pronunciation as the word is displayed. A basic search facility is also provided so the user can search for a particular word within the chosen category.

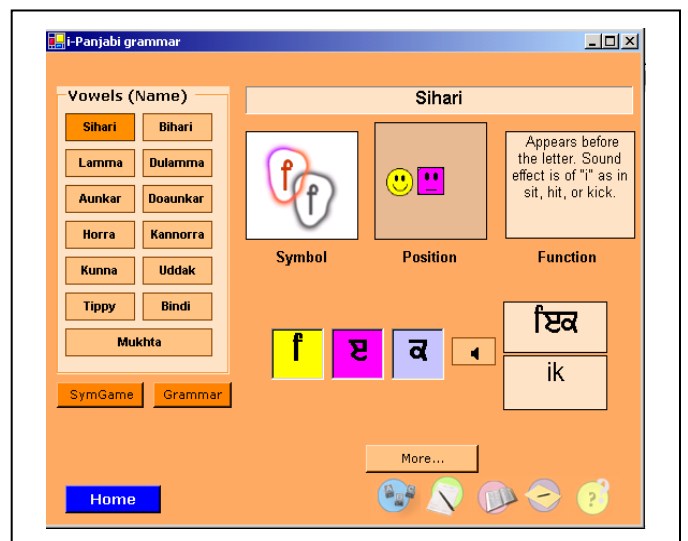
To engage the student further a couple of interactive game-like activities are included; these include word and image-matching games. With these activities the students can test their knowledge and expand their vocabulary as well as have fun. If the user wants, the program can keep the score!



VOWELS & GRAMMAR:

In this module the user can start to learn the basic functions of vowels through recognition of the symbols and simple usage as demonstrated by the program. All the vowels are accessible through a series of hot buttons. Once the button for a particular vowel is clicked the program displays the symbol for the vowel and demonstrates the correct position for that vowel by using simple words. A brief description of the function of the vowel is also given. Several sound files are attached to each vowel so that the user can play these and start the process of associating each vowel with a particular sound as demonstrated through the construction of simple words. We note here that the main emphasis is on the sounds of the constructed words rather than their particular meaning.

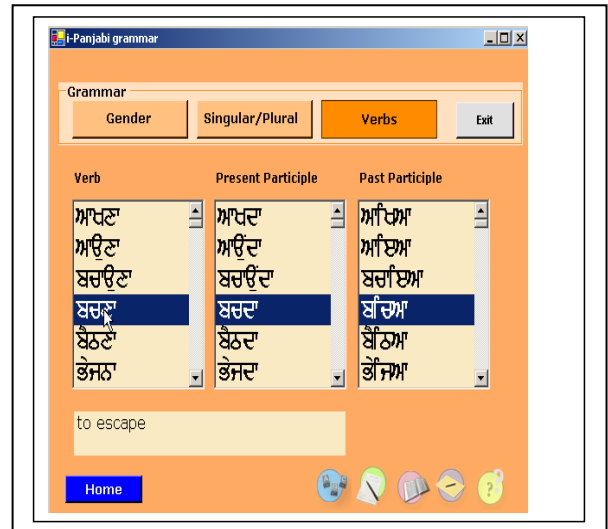
As a further aid to enhance the understanding of the vowel symbols and their positioning to form real words, the beginner and the intermediate learner is provided with the SymGame[®]. In this extensive interactive activity, the player is presented with a list of word categories from which the words can be chosen at random.



Once a word-category selection is made the program displays a Punjabi word from that category. Its English equivalent, as well as its Romanized spelling, is usually listed. In many instances a sound file is also provided as an aid to help with the pronunciation. At this stage the user can continue to browse through the selected word category for new words or start 'playing' the Symgame[®]. Once the game begins, the displayed word is stripped of all the vowels --- only the letters remain. The player is now invited to re-construct the word by supplying the appropriate vowels from a displayed list. Upon receipt of a correct answer the player is praised, the English meaning of the word in question is given, the score is recorded, and the player is invited to

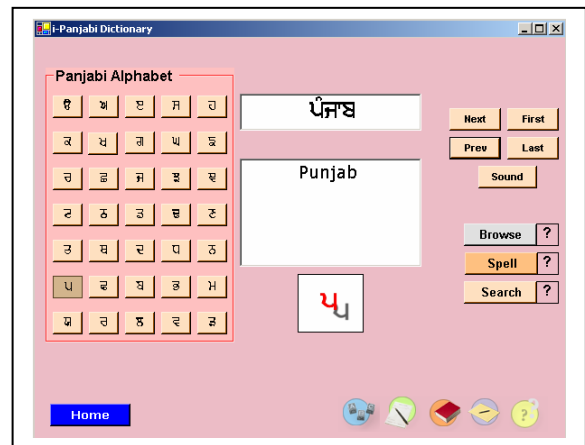
continue playing. The program allows the player to 'reset' or restart the game if a mistake is made; a 'peek' button is also available to the player if all else fails.

For the intermediate learner, this module also includes a section on gender, plurals, and verbs. These items are presented mostly in the form of lists which the user can scan through at leisure. Items in the Gender section (male-female equivalents) are displayed in 2 side-by-side pop-up windows. Each of the entries is clickable thus allowing access to both the Punjabi word and its equivalent in English. A similar scheme is employed for the Singular/Plural items. The section on 'Verbs' provides a list of commonly used verbs; the present participle as well as the past participle is provided thus making this section particularly useful for the student who is at the stage of learning the structure and usage of sentences applicable in the real world.



DICTIONARY:

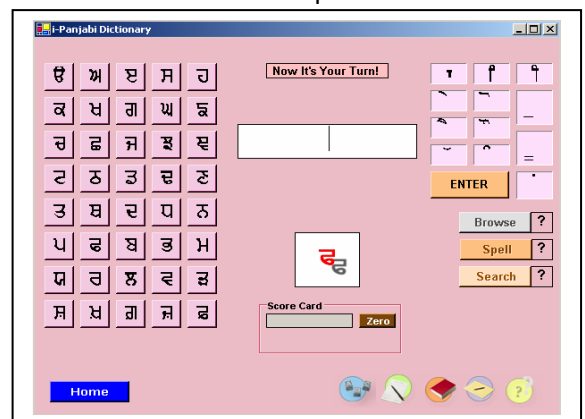
Three main activities are available to the user in this module: Learn to Spell Punjabi words by playing the Spelling Bee; Search the database for Punjabi/English words, and Browse the entire database one letter at a time for Punjabi and English vocabulary. A brief description of each of these activities is given in the pop-up windows which are accessible via the help icons (denoted by question marks) located next to each of the main activity icons.



In the 'Browse' activity the user is presented with an alphabet template from which any letter can be selected. Once a letter is selected the program returns the first entry from the database that begins with that letter. The user is also provided with several navigational buttons which allows the user to scan through (forwards & backwards) through the entire list of entries for the chosen letter. For every word that contains a sound file, a sound button is automatically activated thus allowing the user the additional facility of playing the sound file to hear the pronunciation of the displayed word.

In the 'Search' option the user is provided with an input window which can be used to enter a word (or a partial string) in English; the program lists in two separate windows all the English-matches and all the Punjabi equivalents found.

While the aforementioned options are directed primarily at the advanced student, the 'Spelling Bee' activity is particularly designed for the beginner and the intermediate learner. The program selects a Punjabi word (chosen in random order) and displays it for the user for 10 seconds --- a timer counts down the time and finally the word disappears

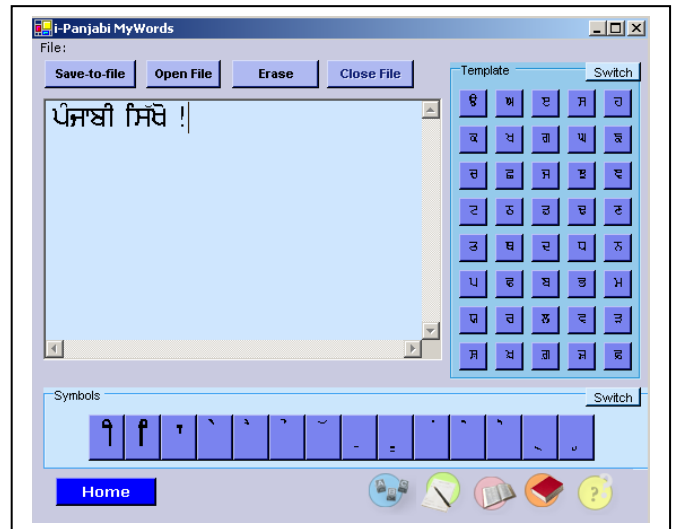


and is replaced with an alphabet template; at this stage the user is invited to spell the word from memory. The user can either use the keyboard or the mouse and the supplied alphabet template to re-create the word and check the result. The program immediately informs the user whether the spelling is correct or not. On receipt of a correct answer the program praises the user, supplies the English meaning of the word, records the score, and invites the user to continue to the next word. On receipt of an incorrect entry, the program allows the user a total of 2 more attempts before allowing the user to 'peek' at the word and try again or stop the spelling exercise altogether.



WRITING PAD:

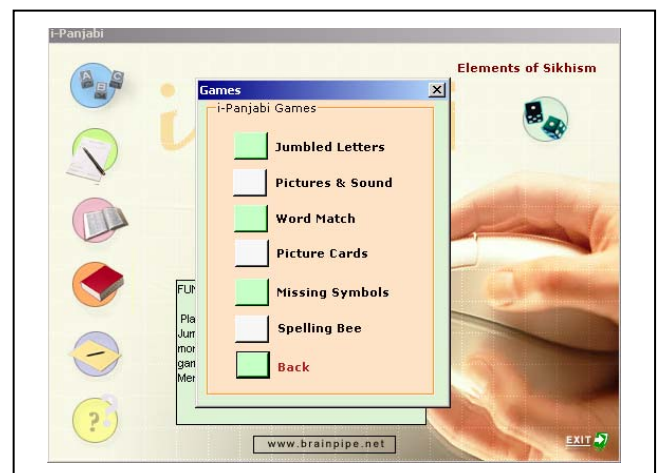
This is the module where the user can literally put the Punjabi language to practice i.e., write it down. Whether you want to write a short message to your favorite relative or make a start on the next Indian epic the Writing Pad can get you going. The user is presented with a simple, easy-to-use writing pad and an active Punjabi-alphabet template complete with the standard vowels. The user can either use the keyboard or the mouse to write and/or edit Punjabi stories in the (internally) supplied font. A clickable button can be used to switch the Punjabi-alphabet template quickly to the equivalent English keys if and when needed. The stories can be saved to a file on the user's directory of choice. Since the file is saved in the convenient format of a Microsoft-Word document it is relatively easy to manipulate, for example print, independent of this application. Saved files created by iPanjabi can be imported back into the program for further editing if needed.



FUN AND GAMES:

This module provides easy and direct access to all the interactive game-like activities in the iPanjabi program. Directly from this module the beginners can start playing games such as the 'Jumbled-Letters' or the 'Pictures & Sound'. These activities engage the user through interaction and the use of multimedia --- the aim is quite simple --- that of encouraging learning through interesting activities that are also fun.

A similar approach is taken with the intermediate learner who is presented with games such as 'Word Match', 'Picture Cards', 'Missing Symbols' and the 'Spelling Bee'. Here the aim is to test the user's memory, increase word-power and present challenges so that the user can track performance and thereby be motivated to do better the next time.



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ELEMENTS OF SIKHISM:

Although the iPunjabi software is primarily a tool for the development of linguistic skills, we have included an optional module on the 'Elements of Sikhism'. For the most part, the material in this section is directed mainly at our younger students, who (presumably under the guidance of their parents and grand parents) are at the beginning stages of appreciating Sikh history and the basic tenets of the Sikh faith.

Anyone remotely familiar with the birth and development of Sikhism knows that there exists an intimate connection between the development of the Punjabi language, the history of the Sikhs and the sacred writings of the Sikh Gurus as compiled in the Guru Granth Sahib. For majority of the Sikhs, being able to access this history through the original text is the prime reason for learning and preserving the Punjabi language. We fully respect that the pursuit of religious studies is a very personal and private matter and depends very much on the individual's spiritual inclination and passion. It is for this reason that we have made this module optional.

This module provides an elementary foundation of a number of important elements of Sikhism. The reader can begin by following the easy-to-read bio-sketches of the Ten Gurus. Important Sikh principles and elements such as the formation of the Khalsa, the meaning of the Five K's, and the names of the Five Takhts are also provided. An important section includes two of the most revered & often recited Sikh prayers: Japji Sahib and Ardaas. Punjabi, English and Romanized versions are provided so that even the youngest of the readers can begin to recognize, read and recite these important prayers. Also included is a Test-bank of questions on various aspects of Sikh history, faith and culture. We consider this introductory body of knowledge to be particularly important for younger students for whom it can serve as a starting point, as well as, a strong motivating factor for further studies.

