INTERACTIVE MULTIMEDIA ENGLISH COURSE

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Abstract: This paper presents an e-learning application written for the practicing and self-testing of technical English vocabulary.It contains varius multimedia materials including pictures, sound files and film material covering certain technical areas.

1. INTRODUCTION

E-learning is the area of IT that specifically deals with PCs and software being used in education. Language learning (and teaching) greatly benefits from the new possibilities that e-learning has brought. It is the aim of e-learning applications to present valuable learning aids to be applied in class alongside the traditional teaching methods.

This multimedia application has been written as part of a thesis work of Tomislav Kopilovic, at the Polytechnical College of Subotica under the supervision of Robert Pintér, programmer and Lívia Szedmina, English teacher. The goal of this application is to enable students to practice and enhance their knowledge of technical English outside the classes by working in multimedia surroundings: by watching short film files, listening to audio material, then analysing the same and solving exercises based on these features.

This paper first gives a short description of the application, then discusses the various types of tasks, and gives examples of the multimedia material used. This is followed by the section on the application's interactive feature equivalent to the assistant in Microsoft Office. Section IV presents this application as seen from a students' point of view, while section V concentrates on the teacher's benefits from this application.

2. DESCRIPTION OF THE APPLICATION

Besides the existing practice material, the need arose to supply the students of this college with additional material that for practicing purposes outside the regular classes. Currently there are two sets of e-learning material (English Online Course, http://english.vts.su.ac.yu, and a grammar practice desktop application) in use at the Polytechnical Engineering College. However, both of these applications have been devised with the focus on grammar, and the developing of the students' language accuracy rather than on enlarging their technical vocabulary. The present multimedia application was written as a desktop application in order to avoid various internet-related costs and problems.

The choice of topics that have been included into this multimedia application, and indeed the style of the application itself, was influenced by the students' comments on the above mentioned applications. The students were of the opinion that there was a serious need for more 'up-to-date' topics, and by and large, for subjects more appealing to their generation, yet from the fields of electronics, computer science, and general technology. The choice of multimedia surroundings would enable the authors to make use of the same media that students are likely to meet in every day life: sound material, advertisements, trailers, short film footage, charts, graphs and pictures. In such situations students would encounter English material that has to be absorbed, understood, analysed and processed.

Fig.1 shows one type of task: on the left-hand side the picture is situated, while on the right side the student can see and do the exercises. The buttons on the lower half of the screen enable the student to play the possible sound files or film materials. On the right hand side of the screen there are the navigation buttons (next or previous exercise), buttons for showing the correct answers and exit button. In the practice section of the application (as seen in this figure) the answers can immediately be checked, while this option is disabled in the test section.
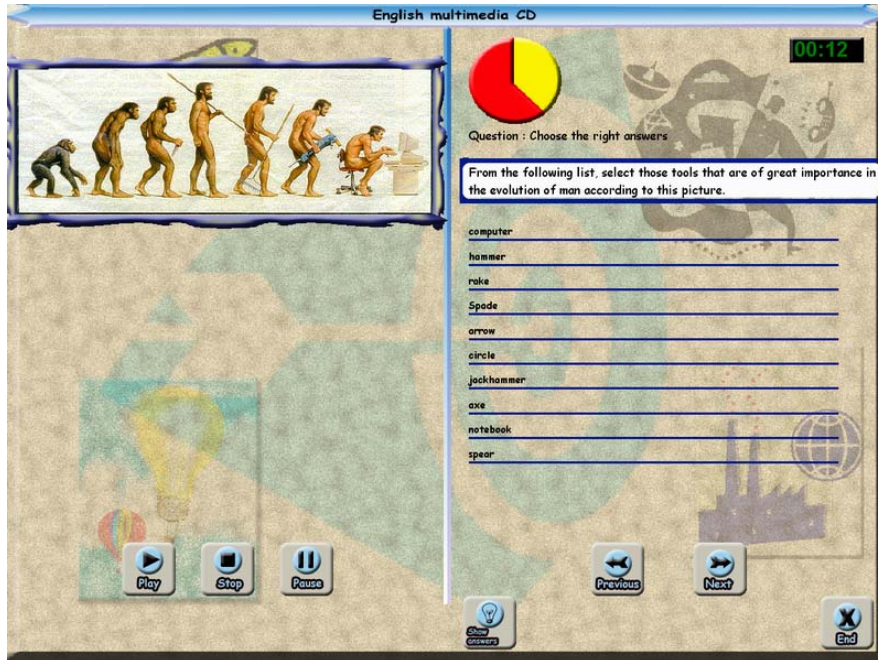
Figure 1

This application also has the purpose to connect with the style of other computer applications that the students are very likely to encounter with on a daily basis. The attempt has been made to endorse interactive, time limiting features, as can be seen in certain computer games (e.g. Starcraft, Warcraft, Freelancer). The aim of these features is to make the students aware of the amount of time they are spending on a specific task, as well as to keep them focused on the exercise at hand.

This interactive assistant is represented by a series of animted cartoon images. It appears randomly, on a time scale of between 30 and 120 seconds. The reactions of these images range from 'mild time warnings' to 'strong motivational suggestions', depending on the amount of time passed since having started the exercise. The time scale does not include the length of the multimedia section; only how long the student is 'working on' the exercise. Some examples are presented below:

'Hey, what's taking you so long?'
'Stop messing around and give me the answer!'
'And you still haven't come up with the solution?'
'C'mon, you're taking ages to figure out the answer!'
'Are you sleeping?'
'Need some help?'
'You must be a novice!'

3. TASKS

There are numerous types of tasks included in this application with the aim to keep the student focused and to have him carefully follow the instructions given. The exercises can be categorized in the following way: multiple-choice tasks ('find the correct answer' or 'find the wrong answer'), true or false tasks, matching, and click on item in picture.

The structure of the tasks is similar: it consists of a section with some type of multimedia material (picture, sound file, or film footage) followed by exercises based on the seen or heard material. Each multimedia section is accompanied by between two and five exercises. The vocabulary used in the practice sections of a task is taken from technical English. In the cases where the British English and American English versions of the word differ, both forms are given, marked (BrE) and (AmE). A specific effort has been made to ensure that both the multimedia material, as well as the lexicon was taken from a 'real life' technical environment.

3.1. SOUNDMATERIAL

A sound file may stand as the only multimedia material in a task, but more often than not the sound file elaborates on a picture or group of pictures. In Fig. 1 you can the see the picture that would be accompanied by the sound file, here given in print. It is followed by two exercises

Figure 2

The text of sound file:
In 1910 the French chemist and engineer Georges Claude produced the first neon light in France. His invention was patented in 1915. And in 1923 the first commercial neon sign was displayed in Los Angeles at the Packard car dealership. It was immediately recognized as a most effective advertising medium. So how does neon light work?

Generally, gases from the group of noble gases are used to create neon light, neon and a mixture of argon and mercury. The gas inside the glass tube is at low pressure. At both ends of the tube there are metal electrodes. When a high voltage is applied to the electrodes, the neon gas ionises, and electrons flow through the gas. These electrons excite the neon atoms and cause them to emit light that we can see.

There are two basic colours: red (or orange) are given off by neon, while the argon/mercury mixture produces blue light. But more than 150 colours are possible in neon signs. The rest of the colours are created by using glass tubes that are coated from the inside with some fluorescent powders.

For example, a green tube that is filled with argon and mercury will produce a green light. Or if a blue tube is filled with neon, it will glow in a pink light. In order to create specific shapes, the glass tubes are rotated in a series of extremely hot flames that will produce the bends and curves in the tube. This is an automated process, although individual works of art may be created by hand, using blow torches.

A well-constructed neon sign can last for more than a decade. Its lifespan is between 8 and 15 years. Today, neon signs are still a highly effective advertising method. However, creating neon signs has also become an artform in itself. 'Writing in light' is now possible not only in two-dimensional script, but in three-dimensional shapes, such as a globe, as well.

Exercise 1.
Which of these statements is false according to the text you have heard?
- Few types of gases are used to create a great variety of colours. T
- The shape of the glass will influence the shades of the colours. F
- All glass tubes are coated with a fluorescent powder on the inside. F
- Red and blue are produced by the most commonly used gases: neon and an argon-based mixture. T
- The expected lifespan of a neon sign is more than a decade. T

(As you can see, I have provided the solutions to the exercises for your convenience, dear reader. My students are not this lucky.)

3.2 PICTURE MATERIAL
The picture material was chosen to vary from useful (thus pictures taken from the fields of mechanical and electrical engineering, as well as general technology) to useful-but-funny. (as shown in Fig. 2) This, however, does not make the task less serious. In this case, it will introduce certain expression taken from the field of building and construction, as presented in the exercises under the picture.
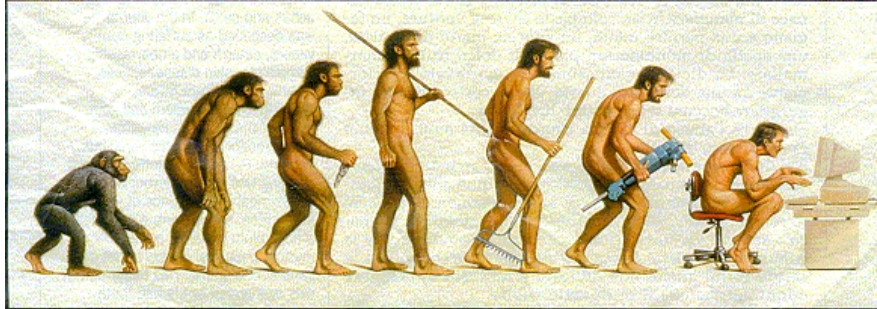
Figure 3

Exercise 1.
From the following list, select those tools that are of great importance in the evolution of man according to this picture.

spade, N; circle, N; rake, Y; hammer, N; axe, N; pneumatic hammer (Br) / jackhammer (Am), Y; notebook, N; computer, Y; spear, Y; arrow, N.

3.3 FILM MATERIAL

This type of medium was chosen because students do meet this medium, and thus with the English language used in this form, rather frequently. The film material used consists of commercials, trailers, or short footage taken from television. Their length is limited to several minutes. Concerning the contents, the material is often computer-related, or its vocabulary revolves around motor vehicles and motor sports. The tasks are predominantly of multiple-choice type, but also the true/false form is often applied (e.g. decide whether or not the following objects occurred in the film).

4. FROM THE STUDENTS' POINT OF VIEW

As a user of this multimedia application the student is given to opportunity to work (and enhance his knowledge) by himself. There are two options in the application to choose from, 'practice' and 'test'. When going for the 'practice' option, the solutions of the exercises can be immediately checked. This enables the student to set his own learning pace. It is a well-known fact that one's learning pace is individual, and unfortunately, it is inevitable that the teacher's teaching pace will be too fast for certain students, and too slow for others. While practicing on his own, the student does not have to take into account anyone else's (fellow students') learning pace, but work in his own time.

Within the 'test' option, there are several varieties to be chosen from based on the tests' length. The shortest versions contain ten tasks. The tasks are counted based on the multimedia material, not the number of exercises, thus there will be several exercises in each task. The solutions can only be checked at the end of the completed test. The benefit of the 'test' option lies in the fact that it enables the student to set himself challenges. Attitudes may range from the careful ('Now that I've been practicing for a while, I wonder how many right answers I can do in a twenty-task test?') to the confident ('I'm a hot-shot, I can do a fifty-test with less than five mistakes!'). But again, the student is in control of his learning process.

By working on his own, the student is assuming greater responsibility in his learning progress. Therefore related problems, such as bad timing of the classes (they are set too early, or in lunch time, or simply, in a time, when the student would like to be doing something else), and the style of the teacher's explanations are of lesser significance.

The student has the possibility to study by himself, therefore a considerable part of the responsibility is his. On the other hand, by studying himself, he will also gain a certain degree of independence that not even the best classes, or the best teacher can provide him with.

5. FROM THE TEACHER'S POINT OF VIEW

This desktop application is part of an English language package the students of the Polytechnical Engineering College are to receive, alongside a grammar practice application and a network application. This package comprises an efficient e-learning material. Besides the regular classes of English held on a weekly basis, this package serves as extra practice material for the students they can work on outside the classes. With the help of these tools the teacher can move away from traditional frontal teaching, and take on the roles of monitor or facilitator. There are consultations held throughout the semester, thus help is offered at all times, however, by and large, the teacher will keep out of the way.

6. CONCLUSION

This multimedia application was created as extra practice material for use outside the English classes. It includes multimedia material in the form of pictures, sound files and film material. The application is geared to enhance the vocabulary of technical English. The topics are taken from the field of general technology, mechanical and electrical engineering. Its design allows for possible future extension by adding more questions and topics.

The application can be used for both practice purposes and self-testing. This E-learning material is to enable students to study on their own, and the teacher to take a step back in the students' learning process.

7. REFERENCES

[1] Gyula Mester: Converting Traditional Courses to E-learning, Proceedings of the Informatika a Felsőoktatásban, pp. 1212-1216, Debrecen, 2002, Hungary.

[2] Sanja Maravic, Robert Pinter: Development of Educational Computer Software for Knowledge Testing, 1st Serbian-Hungarian Joint Symposium on Intelligent Systems SISY 2003, Subotica, September 19.-20, 2003.

[3] Robert Pinter, Sanja Maravic: Development and Application of E-learning material with the help of Flash Animation, Proceedings of Symposium of Computer Sciences and Information Technologies YUINFO 2003, 10.-14. 03. 20033, CD edition.

[4] Lívia Szedmina: Application of Multimedia in English Teaching, Proceedings of 21st International Scientific Conference Subotica, May 06 – 08, 2004.

[5] Lívia Szedmina, Ágnes Szabó, MA., and Szilveszter Pletl, PhD.: English Online Course – an E-learning Network Application, 1st Serbian-Hungarian Joint Symposium on Intelligent Systems SISY 2003, Subotica, September 19.-20, 2003.

[6] www.e-learningeurope.info

[7] http://english.vts.su.ac.yu/index.php