



Sounds in European E-Learning - SEEL
Grant Agreement No.: 2014-1-DE02-KA200-001631
Project No.: 2014-1-DE02-KA200-001631
Sounds and audios in learning processes
Research Paper
Intellectual Output No. O1-A3
Project Partner – P4, CTI – RO



TEACHING SITUATION B

Sounds in European E-Learning - SEEL
Supporting document for Project Partner
Research paper
August 2015

P4 – Colegiul Tehnic Ion I. C. Bratianu – CTI - Romania

Description of a teaching situation

We consider a learning situation applicable during an **IT&C** class.

The class is performed on an interval of 50 minutes, in the IT&C Laboratory.

The theme of the lesson is **Formatting Cells in Microsoft Excel**.

The students are X-th graders, 16-17 years old. Within teaching activity, the teacher is based on the prerequisite IT knowledge of her students, coming as a support from the students' IX-th grade and the first semester of the X-th grade. These notions are referred as notions of structuring information in the Windows operating system, use of Microsoft Word documents editor and use of Microsoft Power-Point application.

The didactical means used are: individual study and group work in order to solve the tasks. The continuous communication and collaboration between teacher and students as well as stimulation of students' creativity have provided a nice interactivity along the entire length of the class.

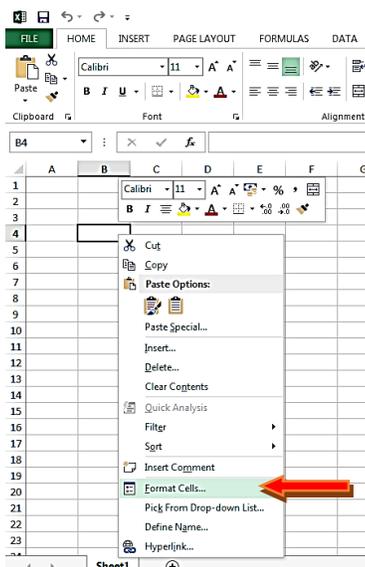
Technical support needed: the PCs in the IT&C Lab, an audio CD, the sounds integrated in the application that students have used during their class.

The content of the lesson refers to the facility offered by Microsoft Excel application allowing them to format the cells that way as, when the information is there inserted, this is directly attached as: data, percent, currency, number with multiple decimals, fraction, text, etc.

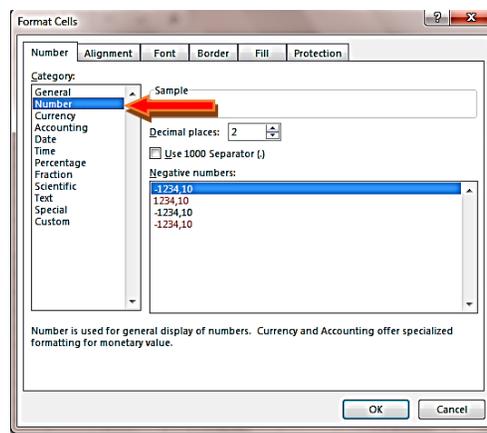
The skills that students will gain until the end of the lesson will be:

- accomplishing the mindset in order to obtain the desired information;
- application of correct formatting cells.

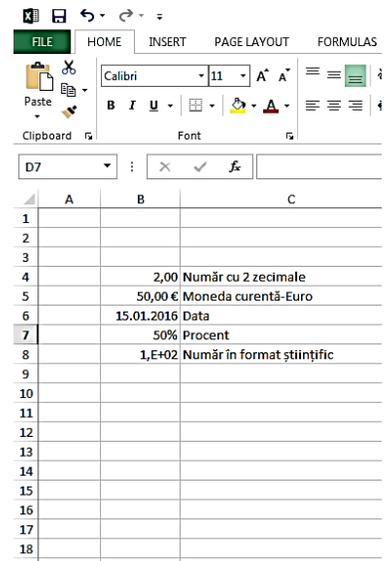
Format Main Menu



Format Cassette



Result



Description the way that sounds can facilitate learning in the already described situation

At the beginning of the class, while the students are entering in the Lab, preparing for the lesson and making the presence, there is Bach music on the background. Also, both on the length of teaching-learning activity and final test, there will be used three types of sounds for the two response alternatives: wrong/right and the third for a ranking between 90 and 100 points.

Hearing Bach music has as a main reason the fact that this sort of music is the perfect alternative for a propitious psychology for study/creativity/focus. It modifies brain activity as well as Theta waves are prevailing, favoring the acceleration of understanding and learning. The length of the audio listened file is about 8 to 10 minutes.

The other used sounds are based on stimulating winning desire, obtaining the final victory. The idea of using these sounds is based on the experience of computer games/phone games that students already have as well as the applications and the final test to induce them a sensation similar to the one they have while playing, the result being **learning**.



- A warning bell ringing.....Wrong Answer
- A bomb dropping on its target.....Right Answer
- Applauses.....Final 90-100 points score

After inducing the appropriate learning environment, the teacher presents the learning theme which will be addressed to. Following some simple recapitulative questions there is presented, using the projector and the smart-board the way cells and cell fields are set in order to obtain the desired format. There is highlighted the necessity of making these settings according to the inserted information, to the calculations being made and to the purpose of using those data.

The students are opening the application and they study the tasks, than, using their short notes and the given explanation, they format the cells. During their practical activity, the sounds are enabled (as it happens in case of a computer game).

For each wrong answer, there is associated a sound of ***warning bell***.

For each right answer, the sound is associated to a ***dropping bomb on the fixed target***.

In the end, the students that will be ranked between 90 to 100 points will hear ***applauses***.

Use of sounds led, first of all, to getting students’ attention from the very moment of their entrance in the Lab. Students’ perception on the presented material was different, comparing it with the previous lessons (situations when the same lesson was taught); the students have learnt, this time, better and easier.

The sounds chosen for the applications and for the test gave them the sensation of participating on a computer game and stimulated their desire of winning. The gained prize was the **audio file recognition of their correct work habit**, the fact that led to a logical memorizing and exact appliance of Microsoft Excel cells format.

On a long term, the students will accumulate more knowledge while using sounds within an educative act, which will lead to a qualitative teaching and learning progress.

APPLICATION

Make the following formats:

cells: A12; A13;A14

cells: B13;B14;B15

cells: C12;C13;C14

cells: D14;D15

Text

Number with 2 decimals

Percent without decimals

Currency-Lei

Encase the format cells in the edging:

Then, fill in with the following data:

Column A: A12,A13,A14; Column B:100,00;50,00;15,00

Column C:25%,30%,12%; Column D: 200,00 lei; 5.000,00 lei

Response

A12		25%	
A13	100,00	30%	
A14	50,00	12%	200,00 lei
	150,00		5.000,00 lei

Appendix

Used sounds:



Bell.amr

Incorrect formating cells



**Dropping
bomb.amr**

Correct formating cells



Applause.amr

Total points:90-100 p