

Recommended Applications for Making Presentations and Didactic Videos. Some Research Results

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Abstract

The article describes the preliminary results of the implementation of WorkPackage 4 (WP4) "Selection and testing new ICT tools" in the framework of the international research network IRNe, represented by researchers from partner institutions in Poland, Slovakia, Ukraine, Australia. These results concern the analysis and study of some categories of ICT-tools for making multimedia presentations and didactic videos. All the package period has been divided into 5 main stages. Authors presented a ranking list based on quality and quantity assessment of chosen ICT-tools and proposed some recommendations of features for good presentation and didactic video as well as specified typical mistakes of designers and users.

Keywords

Applications. Presentations. Didactic video. International research network. Assessment.

INTRODUCTION

A multimedia presentation can play an important role in teaching, being a perfect tool supporting the process of teaching and learning, combining all media in one application.

One research (Mayer 2001: 149-150) looked into some learning preferences and hypothesized that different people learn in different ways, so it is best to present materials in different formats. By using multiple presentation formats, instructors (teachers) can accommodate each student's preferred learning style.

The most effective computer-based *Multimedia* presentation is a concise narrated animation (CNA) (Mayer 2001: 191) which the author defines as a concise narration describing the cause-and-effect system coordinated with a concise animation depicting the cause-and-effect system.

Multimedia - Include corresponding animation and narration rather than the narration alone;

Integrated - Corresponding animation and narration presented simultaneously rather than successively;

Concise - Extraneous words, pictures, and sounds are excluded rather than included;

Channeled - Word presented as a speech rather than on-screen text (or both speech and on-screen text);

Structured - Include series of narrated animation comments describing key steps in the process (for cause-and-effect material).

The offer of software for creating multimedia presentations is broad, but those preparing for the teaching profession are rarely familiar with niche programs. It is an alarming consistency in the context of the need to find ways of effective presentation, i.e. the ones that will attract attention, motivate to learn and constitute a source of information. Currently, the following features of effective presentations are emphasized (Brosch, Frania 2014:30):

- *Multiplicity of media* - presentation should contain at least one static element, i.e. text, photos, graphics, and at least one dynamic component, such as video, audio or animation;
- *Nonlinearity* - the user is able to "jump" from one item to another without losing the sense of the presentation;
- *Interactivity* - which is based on the recipients' decision of what and how they want to see or read, and this is related to content requirement and form management;
- *Coherence* - all elements of the presentation should form a coherent whole with no possibility of exerting control separately on its different parts;
- *Digital mode* of inputting and outputting content (Parekh, 2006:2-5).

WORK PACKAGE 4: BASIC OBJECTIVES.

Among more important Objectives of WP4 there are:

- To select and test new IT tools: social media, selected Web 2.0 and Web 3.0. Massive Open Online Courses, etc; to evaluate synchronous and asynchronous tools, methodologies and good practices; to compare and evaluate, LMS (*learning management systems*), CMS (*Contents Management Systems*), VSCR (*Virtual synchronous classrooms*), SSA (*Screen Share Applications*), CSA (*Contents Sharing Application*), cloud computing environment;
- To identify and define profiles of *virtual campus*, *virtual learning environment* and *virtual synchronous classroom*; to review and compare virtual classrooms (VCR) based on hardware equipment against the ones based on PCs; to identify VCRs which are better aligned with the teacher's or student's activities; compare from the technological point of view the best known VCR (PC based) available on the market; to analyse the technological profile that virtual classrooms should have to ensure good pedagogic results;
- To characterize methodological and technological aspects of multimodal didactic communication;
- To identify general methodological aspects of VCR with a special focus on online tutoring, continuous online evaluation and good practices; to test ICT tools concerning effective developing ICT and e-learning competences as well as in design of intercultural competences.

METHODOLOGY AND STAGES OF RESEARCH

According to the road map the whole period of implementation of this WP was divided into 5 main stages.

Step 1 includes:

- Identifying necessary skills to teach in the school of the future, according to previous studies made and available documents;
- Absolutely necessary skill:
 - Know how to present contents in multimedia format (presentations and didactic videos).

Consequently, different ICT-tools were analysed, their application in education was studied and a different category of application was specified, in particular Module 001, which contains:

- Tools for making presentations.
- Tools for making didactic videos.

Step 2 includes: Tools identified by the team are expected to be reported in a Google Drive document available for remote collaborative work. The research teams responsible for identifying tools should present items to be used as criteria to evaluate and compare Tools by each task using a CSEM (Custom Satisfaction Evaluation Model).

Step 3 involves comparing and concluding on the relative importance of tools, using a CSEM.

Step 4 needs statistic treatment of survey results and final conclusions.

Step 5 covers web-based round table “Recommended and selected IT tools for different teaching methods and processes”, where conclusions are presented.

GENERAL BACKGROUND OF RESEARCH

The review of definitions behind the notion of a presentation

The researchers of the IRNet consortium from University of Silesia (Poland – the Coordinator), Constantine the Philosopher University (Slovakia), Borys Grinchenko Kyiv University (Ukraine), Dniprodzerzhinsk State Technical University (Ukraine), Curtin University (Australia), The Graal Institute (Portugal) analysed a different definition of what a presentation is. For example:

“Presentation is the practice of showing and explaining the content of a topic to an audience or learner” (Cf. Merriam-Webster online <http://www.merriam-webster.com/dictionary/presentation>).

Depending on the sense in the context and meaning: “The giving of something to someone, especially as part of a formal ceremony; The manner or style in which something is given, offered or displayed; A formal introduction of someone, especially at court. The action or right of formally proposing a candidate for a Church benefice or other position; A speech or talk in which a new product, idea, or piece of work is shown and explained to an audience; Medicine: The position of a fetus in relation to the cervix at the time of delivery” (<http://www.oxforddictionaries.com/definition/english/presentation?q=presentations>).

In fact, there is a need to continuously transmit significant amounts of complex information in all sectors of economy and education.

This was done through numerous lectures, meetings and presentations where due to the nature of the data transmitted the illustration and visualization were in the form of different separate media. Lectures, presentations before 2000 were conducted with the help of a large number of different media tools: Maps, charts, tables, boards, films, sound, recordings, photographs.

The presentation of all these elements traditionally required a whole range of teaching aids, starting from a blackboard and chalk, through very laborious preparation of charts and slides, to some sophisticated audio-video systems.

Research tools and procedures

Experts of the IRNet consortium from Poland, Slovakia, Ukraine and Portugal conducted the analysis and discussion concerning more important activities of Tools for Making presentations.

Data Analysis

During the discussion and analysis of previous experience there was elaborated a list of tools, whose applicability and relative importance for making presentations had to be measured according to 1-5 system, there was also prepared a ranking list of ICT-tools for making presentations and didactic videos. Below presented are the most important items to define quality of suggested tools for making presentations and didactic video. The ranking graph elaborated total points, summing the assessment given by all the research groups (Figure 1, Figure 2):

1. Can slides have standard format/templates?
2. Can background be pre-defined to the slides?
3. Can images be inserted in the slides?
4. Is there an image editor?
5. Classify image editor (1-10 points).
6. Is it possible to format colours?
7. Is it possible to compress imaging?
8. Is it possible to remove background?
9. Is it possible to insert or crop images?
10. Can a photo album be inserted automatically in a slide show
11. Is it possible to insert a standard form?
12. Is it possible to insert graphics?
13. Is it possible to insert hyperlinks?
14. Is it possible to insert audio files?
15. Is it possible to insert videos?
16. Is it possible to insert different slide transitions?
17. Is it possible to insert different types of animations?
18. Is it possible to record audio narration?
19. Is it possible to set the time of presentation for each slide?
20. Is it possible for the author to make notes for the presentation?
21. Can a presentation be automatically converted into a video?
22. Can a presentation be automatically saved in PDF format?
23. Can a presentation be automatically saved as image?
24. Are there interactive options (interactive buttons)?
25. Is it free or commercial?
26. Are there automatic sharing options (in social networks or elsewhere).

After a comprehensive analysis more than 20 tools for making presentations were presented. Among them only five most effective tools were identified according to the results of CSEM analysis. The main tools are the following:

- MS Power Point
- Prezi

- Impress LibreOffice
- SlideDog
- ClearSlide/SlideRocket

Additional tools:

- Powtoon
- IBM Lotus Symphony
- Wondershare DVD Slideshow Builder Deluxe
- Corel Presentations
- Lotus Freelance Graphics
- Harward Graphics
- Grapher
- Slidewrite Plus
- other.

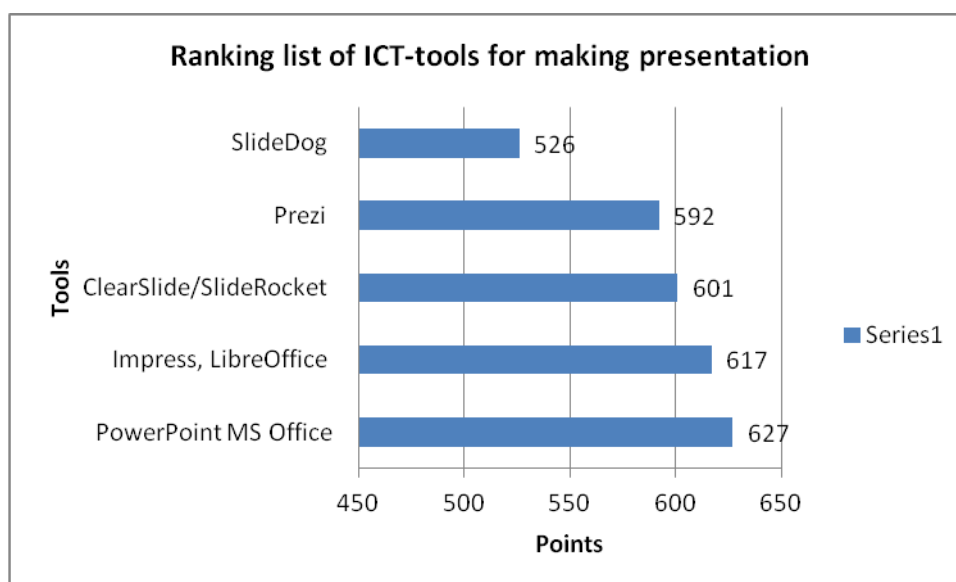


Figure 1: Ranking list of ICT-tools for making presentations

On the basis of a study and research (Brosch, Frania 2014) we can conclude that students often make a lot of mistakes during elaboration of a multimedia presentation, namely:

- excessive effects;
- incorrect choice of fonts;
- too long text;
- repetition of the same effects;
- excessive array of colours;
- authors (students or teachers) often prefer elaborating presentations in the form of a slide-show or presentation with linear structure;

- disproportionate (not clear or too small graphical) objects.

The IRNet researchers, basing on previous study conducted by other experts elaborated several rules of the best use of PowerPoint (Figure 2):

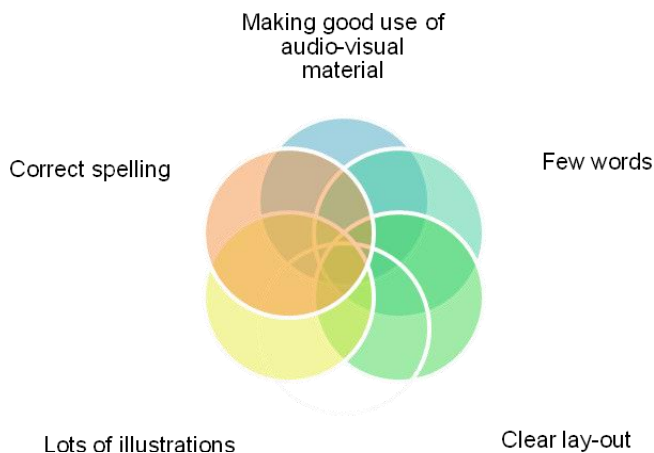


Figure 2: Basic requirements for good presentation (Source: Own research based on (Toon Goedemé))

We should keep in mind that while designing a presentation it is necessary to take into account some important rubrics, such as: Research and Note Taking, Pre- Production Planning – Storyboard, Introduction, Content, Text, Layout, Citations, Graphics, Sound and/or Animation, Writing Mechanics (PowerPoint Rubric, <https://www2.uwstout.edu/content/profdev/rubrics/pptrubric.html>)

Didactic video

Experts of the IRNet consortium from University of Silesia (Poland, the coordinator), Constantine the Philosopher University (Slovakia), Borys Grinchenko Kyiv University (Ukraine), Dniprodzerzhinsk State Technical University (Ukraine), Curtin University (Australia) conducted analysis and discussion concerning very important aspects and tools for making didactic video.

During discussion and analyzing previous experience the group developed a list of criteria to range the suggested tools for creating didactic videos and they have also ranked the chosen ICT-tools in a list.

A list of criteria to define quality of suggested tools for making didactic videos is presented below:

1. usefulness;
2. educational potential;
3. multifunctionality;
4. survey options;
5. friendly interface;
6. free;

7. group collaboration work support, webinar support;
8. podcast support;
9. tools for scheme and graph creation;
10. multi-windows interface;
11. customization and editing of content on both Mac and Windows platforms.

After a comprehensive analysis of multiple Tools for Making didactic videos there were identified several Main most effective tools. Among **main** and **additional tools** there are (Figure 3):

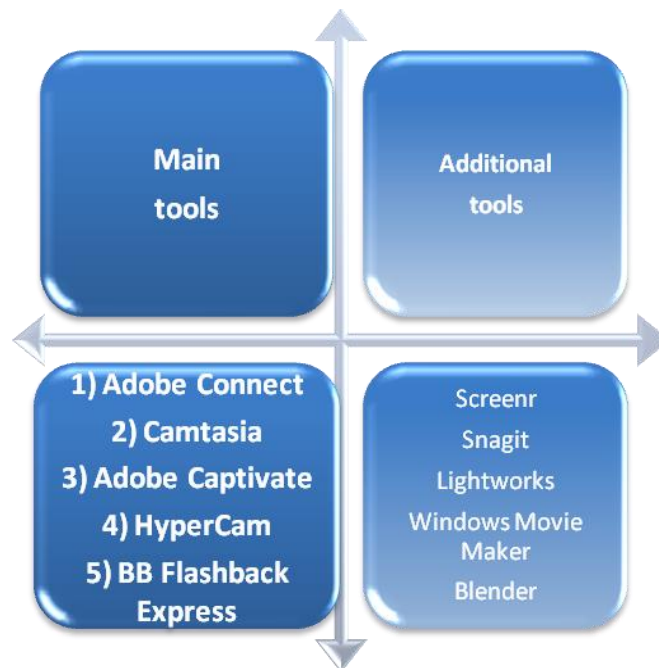


Figure 3. Main and additional tools for making didactic videos

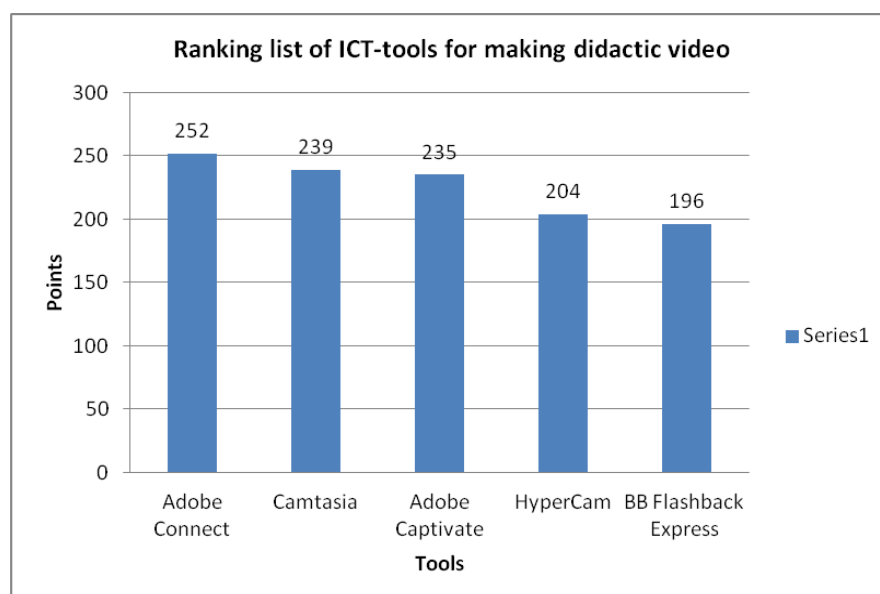


Figure 4. Ranking list of ICT-tools for making didactic video

CONCLUSIONS

The reports of research about described activity and tools identified are available in other papers, reports and several didactic videos, produced by the researchers about the activity, described in this article and a report identifying relevant and necessary tools has been prepared. In the near future the research results and elaborated tutorials on didactic videos will become a part of the MOOC "ICT tools for effective use in education", prepared by IRNet consortium and planned to be launched in 2016 in several languages.

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