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Discussion Paper on More Adequate and Effective IT Tools. Some Previous Results Concerning More Adequate and Effective ICT Tools in the Category: Tools for Making Presentations

Abstract

The article describes some preliminary results of the implementation of Work-Package 4 (WP4) “Selection and testing new IT tools” in the framework of the international research network (IRNet) and researchers from partner institutions from Poland, Slovakia, Ukraine, and Australia. These results concern analysis and study of some categories of IT tools for making multimedia presentation. All the package period has been divided into 5 main stages. The role of multimedia in teaching is considerable as it offers various formats of presenting information simultaneously. The combination of text, audio, images, animation, video, as well as hyperlinks has an advantage of using both of the two main channels – visual and verbal – for presentation in an efficient way. This paper also discusses the features

of effective presentation and examples of computer programs which may be used for this purpose. Authors presented a ranking list based on quality and quantity assessment of chosen IT tools and they proposed some characteristics of good presentation as well as they analyzed frequent mistakes made by users elaborating presentations.

Key words: IT Tools, presentations, international research network IRNet, quality and quantity assessment

Introduction

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

The offer of software for creating multimedia presentations is broad, but students 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, that is, such that will attract attention, motivate to learn and constitute a source of information. The following features of effective presentations are contemporarily emphasized (Brosch & Frania, 2014, p. 30):

- multiplicity of media: presentation should contain at least one static element, that is, 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: based on the recipients’ decision of what and how they want to see or read, which is related to the requirement of content and form management;
- coherence: all elements of the presentation should form a coherent whole without the possibility of exerting separate control on its different parts;
- digital mode of inputting and outputting content (Parekh, 2006, pp. 2–5).

Workpackage 4: Basic Objectives

Among more important objectives of WP4 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 better serve the teacher's or student's activities, to compare from the technological point of view the most known VCR (PC based) available in the market; to analyze the technological profile that virtual classrooms should have so as to ensure a good pedagogic result;
 - to characterize methodological and technological aspects of multimodal didactic communication;
 - to identify the general methodological aspects of VCR with a special focus on online tutoring, continuous online evaluation, and good practices; to test IT 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 elaborated by Professor Antonio dos Reis, coordinator of WorkPackage 4, the whole period of implementation of this WP was divided into several main stages (1–5).

Stage 1 includes:

- identifying necessary skills to teach in the school of the future, according to previous studies made and documents available;
- absolutely necessary skills: know how to present contents in multimedia format (presentations and didactic videos);
 - recommended skills: *communication, collaboration, creativity, critical thinking and problem solving, productivity, reflection and feedback, social networking, searching.*

Consequently, different IT tools were analyzed, their application in education was studied and a different category of application was specified, in particular Module 001, which contains: Tools for making presentations and Tools for making didactic videos.

Stage 2 includes: Tools identified by the team are expected to be reported in a Google Drive document available for remote collaborative work.

July – Teams responsible for identifying tools should present items to be used as criteria to evaluate and compare tools by each task to implement a CSEM (Custom Satisfaction Evaluation Model)

Stage 3 (September – October) involves comparing and concluding on the relative importance of tools, using a CSEM.

General Background of Research

What is a Presentation?

Researchers of the IRNet consortium from the University of Silesia (Poland) – Coordinator, Constantine the Philosopher University (Slovakia), Borys Grinchenko Kyiv University (Ukraine), Dniprodzerzhinsk State Technical University (Ukraine), Curtin University (Australia), analyzed a different definition of what is a presentation, for example:

“*Presentation* is the practice of showing and explaining the content of a topic to an audience or learner” (www.wikipedia.org).

Depending on the sense in the context and meaning, presentation can be described in the following ways: “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>).

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

This was done through numerous lectures, presentations, where the data transmitted were presented in the form of visualization of different separate media objects. Before the year 2000, the lecture was a form of presentation conducted by use of many different tools, such as maps, charts, tables, boards, films, sound, recordings, photographs, etc. The presentation of all these elements traditionally required a whole range of teaching aids, starting from a board and chalk, through very laborious preparation of charts and slides, to some sophisticated audio-video systems.

Instrument and Procedures

After comprehensive analysis of many tools for making presentations a number of main effective tools were identified. Among the main tools are:

- MS Power Point,
- Prezi (www.prezi.com),
- Impress Libre Office,
- Slide Dog,
- ClearSlide/SlideRocket.

Additional tools:

- Powtoon (www.powtoon.com),
- IBM Lotus Symphony,
- Wondershare DVD Slideshow Builder Deluxe,
- Corel Presentations,
- Lotus Freelance Graphics,
- Harward Graphics,
- Grapher,
- Slidewrite Plus,
- other.

Experts of the IRNet consortium from Poland, Slovakia, Ukraine, and Australia conducted an analysis and led a discussion concerning more important application of tools for making presentations (Table 1–5).

Table 1.

MS Power Point description, activities, marking guide

Application	Description	Activities	Marking guide
MS PowerPoint (MS PPT)	Power Point application is a slide show presentation show. Slides can contain: text graphics, sound, movies tables, and other objects. Transitions are available in the Power Point slides (i.e., push, wipe, split, reveal, etc.). Animations are available in PowerPoint slides (i.e., Fly in, Split, Shape, Wheel, etc.). SmartArt allows you to communicate information with graphics instead of just using text (i.e. list, process, cycle, hierarchy, relationship, etc.).	Face to face presentation; digital presentation; case studies; analyzing an article; short questions; supporting of different; educational activities.	Language; delivery; supporting material; central message; source and evidence; conclusion and recommendations.

Source: The authors' own work based on <https://products.office.com/en-ca/powerpoint>.

Table 2.
Prezi description, activities, marking guide

Application	Description	Activities	Marking guide
Prezi (www.prezi.com)	<p>Prezi is a cloud-based presentation software and storytelling tool for presenting ideas on a virtual painting.</p> <p>Users will have the control to pan and zoom, and to size, rotate or edit an object.</p> <p>Prezi allows its users to add text, images, video, media and texts.</p> <p>Pages under Prezi are called frames, which allows users to group a set of presentation media together as a single presentation object.</p>	Digital presentation; face to face presentation.	Language; delivery; supporting material; central message; source and evidence; conclusion and recommendations.

Source: The authors' own work based on www.prezi.com.

Table 3.
Impress description, activities, marking guide

Title of Application	Description	Activities	Marking guide
Impress Libre Office (https://www.libreoffice.org/discover/impress/)	<p>Impress has a comprehensive range of easy-to-use drawing and <i>diagramming tools</i> to add <i>style</i> and <i>sophistication</i> to your presentation.</p> <p>A lot different animations and effects.</p> <p>The <i>Fontworks</i> tool permits you to create attractive <i>2D</i> and <i>3D</i> images from text.</p> <p>Impress enables you to build and control <i>3D scenes</i>, incorporating a large variety of objects and components.</p>	<p>Impress is a truly outstanding tool for creating effective multimedia presentations.</p> <p>Presentation edition and creation is flexible, thanks to different editing and view modes: <i>normal</i> (for general editing); <i>outline</i> (for organizing and outlining your text content); <i>notes</i> (for viewing and editing the notes attached to a slide); <i>handout</i> (for producing paper-based material); <i>slide sorter</i> (for a thumbnail sheet view that lets you quickly locate and order your slides).</p> <p>Digital Presentation; face to face presentation.</p>	Language; delivery; supporting material; central message; source and evidence; conclusion and recommendations.

Source: The authors' own work based on <https://www.libreoffice.org/discover/impress/>.

Table 4.
SlideDog description, activities, marking guide

Application	Description	Activities	Marking guide
SlideDog (http://slidedog.com/blog/top-5-presentation-tools-2014/)	<p>Users can now easily add live polls, ask the audience for feedback, share slides online and remote control SlideDog from your mobile phone.</p> <p>All this can be enabled from within the app itself, and to this day we have not seen any competitors that can match our combination of seamless presentation playback and interactive audience features.</p> <p>Currently, all the new features are included in the free version of SlideDog.</p>	Digital presentation; face to face presentation.	Language; delivery; supporting material; central message; source and evidence; conclusion and recommendations.

S o u r c e: The authors' own work based on <http://slidedog.com/blog/top-5-presentation-tools-2014/>.

Table 5.
ClearSlide/SlideRocket description, activities, marking guide

Application	Description	Activities	Marking guide
ClearSlide/ SlideRocket (http://www.sliderocket.com)	<p>SlideRocket stopped accepting new users when it was acquired by ClearSlide in 2013.</p> <p>SlideRocket is a revolutionary new approach to business communications designed from the start to help users make great presentations that engage your audience and deliver tangible results.</p> <p>SlideRocket protects your content investment and opens up a world of previously unavailable possibilities by importing your existing PowerPoint or Google presentations. Import as images for quick and easy sharing or import as editable files for full compatibility with SlideRocket.</p> <p>Other features: access anywhere; creating presentations online; support work together; share presentations easily; present dynamically; security ON; measure presentation effectiveness; go mobile.</p>	Digital presentation; face to face presentation.	Language; delivery; supporting material; central message; source and evidence; conclusion and recommendations.

S o u r c e: The authors' own work based on <http://www.sliderocket.com>.

Data Analysis

During discussion and analysis of previous experience there was elaborated a list of items to define quality of suggested tools for making presentations and to evaluate their relative importance, according to 1–5 grading system (Table 6). Besides, there was prepared a ranking list of IT tools for making presentations (Table 7).

Table 6.

A list of items to define quality of suggested tools for making presentations and their relative importance 1–5

	Items	US	UKF	BGKU	DSTU	CU	Total
1	2	3	4	5	6	7	8
1.	Can slides have standard format/templates?	5	5	5	5	5	25
2.	Can background be pre-defined to the slides?	5	5	5	5	5	25
3.	Can images be inserted in the slides?	5	5	5	5	5	25
4.	Is there an image editor tool?	4	4	4	3	3	18
5.	Classify image editor (according to 1–10 grading system)	5	4	4	4	3	20
6.	Is it possible to format colors?	5	3	4	3	5	20
7.	Is it possible to compress imaging?	5	5	4	4	5	23
8.	Is it possible to remove background?	5	5	5	4	5	24
9.	Is it possible to insert or crop images?	5	5	5	4	5	24
10.	Can a photo album be inserted automatically in a slide show?	5	4	4	4	5	22
11.	Is it possible to insert a standard form?	5	3	5	5	5	23
12.	Is it possible to insert graphics?	5	5	5	5	5	25
13.	Is it possible to insert hyperlinks?	5	5	5	5	5	25
14.	Is it possible to insert audio files?	5	5	5	4	5	24
15.	Is it possible to insert videos?	5	5	5	4	5	24
16.	Is it possible to insert different slide transitions?	5	5	5	5	5	25
17.	Is it possible to insert different type of animations?	5	4	5	5	5	24
18.	Is it possible to record audio narration?	5	4	5	4	5	23
19.	Is it possible to insert record time presentation for each slide?	4	2	4	4	5	19
20.	Is it possible to make an author notes presentation?	5	5	5	5	5	25

1	2	3	4	5	6	7	8
21.	Can a presentation be automatically converted into a video?	4	3	5	4	4	20
22.	Can a presentation be automatically saved in a PDF format?	5	2	5	5	5	22
23.	Can a presentation be automatically saved as an image?	5	3	5	5	5	23
24.	Interactive options (interactive buttons)+	5	4	5	4	5	23
25.	Fees (Free/Commercial)+	5	5	5	5	5	25
26.	Automatic sharing options (in social networks or elsewhere)+	4	3	4	4	5	20

Source: The authors' own work.

Table 7.
Ranking list of IT tools for making presentation

Tools' number	Points
1: PowerPoint MS Office	627
2: Impress, LibreOffice	617
3: ClearSlide/SlideRocket	601
4: Prezi	592
5: SlideDog	526
6: Keynote	For Mac
7: PPTPlex	For Mac

Source: The authors' own work.

Pedagogical Aspects of Multimedia Presentation

Apart from technological aspects of the above discussed IT tools, the authors also provided an analysis of pedagogical and methodological aspects of multimedia presentation as necessary in the developing area of multimedia presentation, in particular:

- the use of software for the creation of multimedia presentations broadens the scope of impact. You can integrate various elements of *communication*, *enter interactions*, and create a new narrative style that is not only a component used in the presentation;
- by being able to *individualize*, *animate*, and *stimulate* phenomena and processes which use elements typical to multimedia presentations, you can

imitate personal experiences, which largely determines such processes as remembering and learning.

Functions of multimedia presentation:

- informing;
- activating;
- motivating;
- inspiring.

The functions of a presentation are realized via planned systematic direct impact:

- *subjectivity* (a set of features and the formal content, for example: intuition, cognitive style, foreknowledge, recipient, his or her cultural experiences);
- *objectivity* (syntactic and semantic value, for example: communication characteristics, the structure of the message, type of construction, ways of emphasizing the structures, taking into account markers, traffic and carry-over effects);
- pragmatically (methodically, for example, a specific situation, character interaction, the type of tasks assigned to each kind of media).

Important capabilities and advantages of multimedia presentation include:

- the direct import of data from other applications;
- the possibility of any transformation of content and presentation;
- an easy way to reproduce presentation files;
- the ability to print information materials immediately, created from existing slides;
- the possibility of making a presentation in a local network or the Internet for any number of recipients.

Multimedia presentations can be classified depending on the form and target audience to which they are addressed:

- multimedia presentation in the form of a film (slide-show) (Figure 1): used as a typical training film (all of the slides switch over automatically). The teacher and recipients remain passive. Presentations of this type may have a loop shape, which allows to use them as illustrations of various types of exposure;

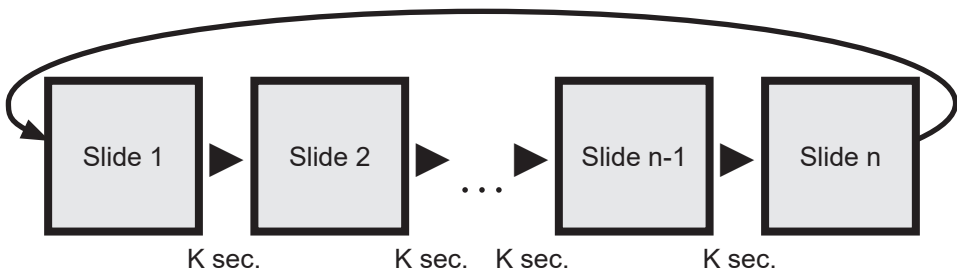


Figure 1. Multimedia presentation in the form of a film (slide-show).

Source: The authors' own work (Smyrnova-Trybulska, <http://el.us.edu.pl/weinoe>).

- multimedia presentation with a linear structure (Figure 2): the consecutive slides are displayed one after another. Although there is a possibility to go to any slide in the presentation, each is a separate object not having hypertext links which recognize their content in a systematic structure;

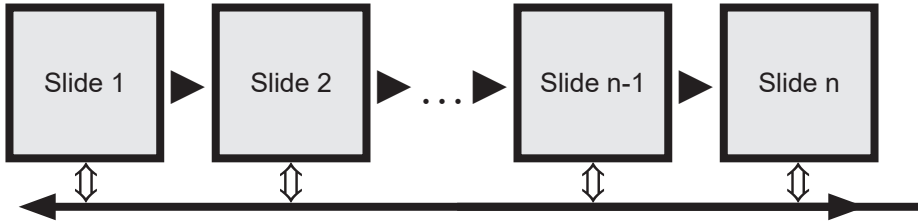


Figure 2. Multimedia presentation with a linear structure.

Source: The authors' own work (Smyrnova-Trybulska, <http://el.us.edu.pl/weinoe>).

- interactive presentations (Figure 3):

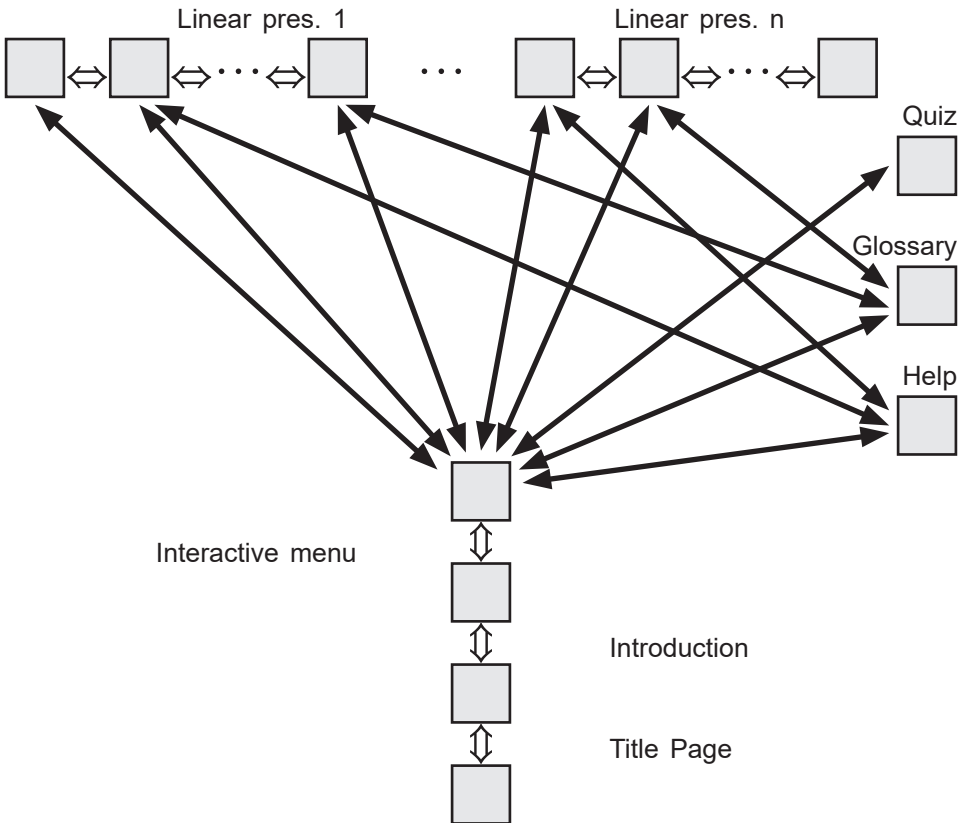


Figure 3. The presentation of the branched structure with interactive elements.

Source: The authors' own work (Smyrnova-Trybulska, <http://el.us.edu.pl/weinoe>).

you can extract presentations for mass and individual consumers. In both cases, the presentation structure is similar, but for individual customers it requires a much broader refining of the technical details and equipment due to precise methodical instructions.

At the start, interactive presentation offers many opportunities of browsing for the recipient. It is credited on the basis of selecting appropriate hyperlink specific contents or expanding the scope of knowledge of specific issues.

Other Criteria of Classification of Presentation

- Type of school: universities, primary schools, secondary schools, etc.;
- Users age: university students, children, teenagers, adult people, etc.;
- Subject: humanities, sciences, etc.;
- Type of teaching/learning: presence form or remote mode (distance learning);
- Didactic aims: introduction of a new topic, evaluation, etc.;
- Type of work organization: individual, group, collective.;
- Type of structure: film, linear structure, and branched structure, etc.

On the basis of the research done by Brosch and Frania (2014) and the authors' research study we can conclude that students often make many mistakes during their elaboration of multimedia presentations (Table 8).

Table 8.

Errors made by students during the design of a multimedia presentation

Type of error 1	Display 2	Effect 3
Excessive effects	Too frequent use of various sound and visual effects.	It is not information that is communicated to its recipients.
Incorrect choice of font	The use of fonts without Polish letters; the use of multiple font styles within a single presentation.	Presentation loses its clarity.
Excessive text	The text voiced by the presenter is the same as the text on the display.	The presentation is inflexible and boring, recipients lose interest.
Multiplication of the same effects	The use of ready slide templates.	No originality; the presentation is not attractive for the recipient.
Excessive array of colours	A single slide has more than 3 colours.	Reception of information is made more difficult than it is necessary; visual perception is overloaded.

1	2	3
Authors (students or teacher) often prefers elaborating of type the presentation in form of a slide-show or linear structure presentation	The imposed pace which may not be adjusted to the listeners' pace.	The lack of individualised teaching and learning.
Disproportionate or not spicy or too small graphical objects	Poorly received by users.	The figures do not fulfill their functions substantive and teaching.

S o u r c e: The authors' own research based on Brosch and Frania (2014).

The analysis of research conducted before and our own previous experience identified that there is a nonlinear relation between time of presentation and attention of the audience which can be presented as follows (see Figure 4). Therefore, it is essential to keep in mind all these outcomes, provide suggestions and recommendations for a good presentation, which could keep users' attention when the presentation is displayed.

IRNet researchers elaborated several rules how to use PowerPoint most efficiently (Figure 2), which was based on previous study conducted by other experts, in particular: (Toon Goedemé), (Marcovitz, 2012), (Osmańska-Furmanek 1999), (Anderson 2015), (Brosch & Frania 2014).

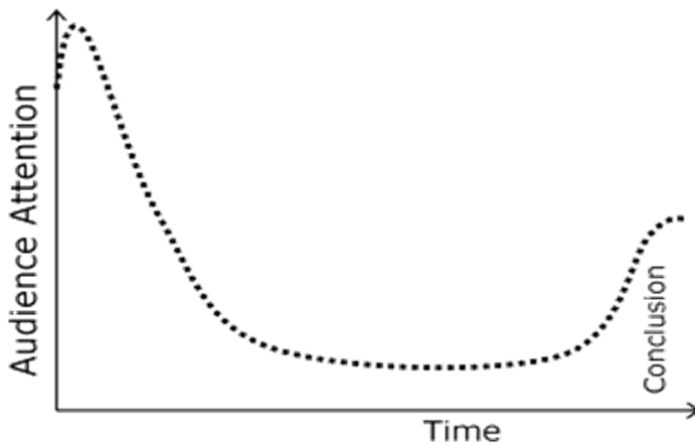


Figure 4. Relation between time of presentation and attention of audience.

S o u r c e: Toon Goedemé.



Figure 5. Basic requirements for good presentation.

Source: The authors' own research based on Toon Goedemé.

Additional sources: animations, movies, demonstrations (Toon Goedemé). Top Five Slide Key Points.

1. Reduce the amount of text. Your slides are supporting your talk, not duplicating it. Use photos or graphics to illustrate your point, or summarise the content in a few key words or phrases.
2. Create a visual hierarchy. Not all information is equally important. Contrasting font sizes and placement of text helps the audience understand your message quickly. Do not use bold type for all of the text.
3. Divide your presentation into sections. Help the audience follow your presentation by adding interstitial slides or putting the section title on each slide.
4. Have a learning objectives slide. Let the audience know at the beginning the key three to five points you want them to take away from your presentation.
5. Use a color palette. If your organization has a template, they probably have a color palette. Use colour for emphasis. Limit the number of colors in your palette (Effective Presentations, a Toolkit for Engaging an Audience).

Among suggestions good slide structure could be specified:

- use 1–2 slides per minute of your presentation;
- write in point form, not complete sentences;
- include 4–5 points per slide;
- avoid wordiness: use key words and phrases only;

- maximum 40 words/slide!

After analyzing theoretical and practical aspects of design of presentation we could describe more important font requirements:

- use at least an 18-point font;
- use different size fonts for main points and secondary points (this font is 24-point, the main point font is 28-point, and the title font is 36-point);
- use a sans-serif font like Arial.

Good and bad examples of the usage of fonts, colors, and pictures in presentations are illustrated in Figures 6, 7, 8 respectively.



Figure 6. Good and bad examples use of fonts in presentation.

Source: The authors' own work.



Figure 7. Good and bad examples of the use of colors in presentation.

Source: The authors' own work.

Among more important color requirements we could mark the following:

- the use a color of font that contrasts sharply with the background (e.g., blue font on white background);
- the use color to reinforce the logic of your structure (e.g., light blue title and dark blue text);
- the use color to emphasize a point (but only occasionally).



Good

Bad

Figure 8. Good and bad examples of the use of pictures in presentation.

Source: The authors' own work. Pictures from Microsoft Office free image gallery.

Stage 4

1. October – November: making up focus groups, one of students and one of in-service teachers.
2. November – statistic treatment of obtained results and final conclusions. Evaluation of the results of research by independent experts
3. December – e-round table to present conclusions.

Deliverables:

D 4.1. Monograph *Innovations in Higher Education – Modern Communications and Collaboration at the University Using Specific IT Tools*.

D 4.2. Joint Consortium Report on the Selection of New IT Tools and Their Characteristic and Its Publication on Project Website.

D 4.3. 7 scientific papers, published in the *ICTE 2015* (Information and Communication Technology in Education) Conference Proceedings.

- D 4.4. Discussion papers on the topic of more adequate and effective IT tools.
- D 4.5. Script *Selection IT tools and their using for developing IT competences*.
- D 4.6. Scientific paper *Using effective and adequate IT tools for developing teachers' skills* (International Journal IJCEELL).
- D 4.7. Collection of papers *Open Educational and Informational E-environment of Modern University*.
- D 4.8. Monograph *ICT Tools – Good Practice of Effective Use in Education*.

Conclusions

This paper aims to present some temporary, preliminary results of research, conducted within the first 7 months of WP4 “Selection and Testing New IT Tools,” module 001 “Tools for Making Presentations.” The second part of the WP4 involves the implementation of other tasks planned for realization:

Task 4.3. Making up focus groups, one of students and one of in-service teachers, in every country participating in the project in order to involve them into testing new ICT tools (LCMS, massive open online courses, virtual classroom technology, social media, other selected tools such as Web 2.0 and Web 3.0).

Task 4.4. Invitation of focus groups to experimental learning with use of new ICT in sequence in order to provide the participants with the possibility to take personal experience of usage new ICT tools and express their view on their use in learning.

Task 4.5. Collection of the data on the participants' attitude to new ICT by implementing such methods as observation, interview, and self-assessment.

Task 4.6. Analyses of the data obtained, generalizing and making conclusions on strong and weak points of implementing LCMS, virtual classroom technology, social media, selected Web 2.0 and Web 3.0.

All the results of the study will be published in the subsequent/forthcoming articles of international consortium.

Acknowledgments

This research study received, within the framework of the IRNet project, funding from the People Programme (Marie Curie Actions) of the European Union's Seventh Framework Programme FP7/2007-2013/ under REA grant agreement No: PIRSES-GA-2013-612536.

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Dotychczasowe wyniki dotyczące bardziej odpowiednich i efektywnych narzędzi w kategorii: narzędzia TIK do przygotowania prezentacji

Streszczenie

Artykuł opisuje wstępne wyniki realizacji Pakietu Prac 4 „Wybór i testowanie nowych narzędzi TIK” w ramach międzynarodowej sieci badawczej IRNet z udziałem naukowców z instytucji partnerskich z Polski, Słowacji, Ukrainy i Australii. Wyniki te dotyczą analizy i badania pewnych kategorii narzędzi informatycznych przeznaczonych do multimedialnych prezentacji. Cały czas trwania pakietu prac został podzielony na pięć głównych etapów (1–5). Multimedia w nauczaniu dostarczają wielu różnych formatów prezentowania informacji w sposób symultaniczny. Połączenie tekstu, dźwięku, obrazów, animacji, wideo, a także odnośników pozwala wykorzystać dwa główne kanały odbioru informacji (wizualny i werbalny) w realizowaniu prezentacji w sposób efektywny. W niniejszym artykule zostały również omówione cechy efektywnej prezentacji i przykłady programów komputerowych, które mogą być wykorzystywane do jej przygotowania. Autorzy przedstawili ranking wybranych narzędzi informatycznych, stworzony na podstawie jakościowej i ilościowej oceny, i zaproponowali zalecenia dotyczące wyznaczników dobrej prezentacji, a także przeanalizowali błędy najczęściej popełniane przez autorów prezentacji.

Słowa kluczowe: narzędzia informatyczne, prezentacje, międzynarodowa sieć badawcza IRNet, ocena jakościowa i ilościowa

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Некоторые предыдущие результаты изучения наиболее адекватных и эффективных ИКТ-инструментов категории «Инструменты для создания презентаций»

Резюме

В статье описываются некоторые предварительные итоги реализации рабочего пакета №4 «Выбор и тестирование новых инструментов ИКТ» в рамках международного проекта сети IRNet исследователями из учреждений-партнеров Польши, Словакии, Украины, Австралии. К результатам относится анализ некоторых категорий ИКТ-инструментов для создания мультимедийной презентации. Исследование было разделено на несколько основных этапов (1–5). Роль мультимедиа в преподавании является значительной, так как предлагает различные форматы представления информации одновременно: текста, звука, изображения, анимации, видео, а также гиперссылок. Отмечается преимущество использования обоих из двух основных каналов – визуального и вербального – для представления информации наиболее эффективно. Особенности эффективного представления информации и примеры компьютерных программ, которые могут быть использованы для этой цели, также обсуждаются в работе. Авторы пред-

ставили рейтинг-лист в зависимости от качества и оценки количества выбранных ИКТ-инструментов и предложили некоторые рекомендации для создания презентации. Кроме того, в статье проанализированы наиболее часто совершаемые ошибки.

Ключевые слова: ИКТ-инструменты, презентация, международная научно-исследовательская сеть IRNet, качественное и количественное оценивание

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Algunos resultados previos en relación a las herramientas TIC más adecuadas y efectivas en la categoría de herramientas para realizar presentaciones

R e s u m e n

El artículo describe algunos de los resultados preliminares del Paquete de Trabajo 4 (WP4) “Selección y testeo de nuevas herramientas informáticas” en el marco del proyecto europeo IRNET y los investigadores e investigadoras de las instituciones socias de Polonia, Eslovaquia, Ucrania y Australia. Estos análisis son resultado de la preocupación y el estudio de algunas categorías de herramientas TIC para la elaboración de presentaciones multimedia. Todos los paquetes de trabajo han sido divididos en varias etapas de trabajo del 1 al 5. El papel de los materiales multimedia en la enseñanza es considerable, ya que ofrece varios formatos de presentación de la información al mismo tiempo. La combinación de texto, audio, imágenes, animaciones, vídeo, así como de hipervínculos, tiene la ventaja de utilizar los dos canales principales de comunicación (visuales y verbales) para realizar presentaciones de manera eficiente. Las características de estas herramientas dirigidas a elaborar presentaciones, junto con ejemplos de programas de ordenador que se pueden usar con este propósito, también se discuten en el presente trabajo. Los autores y autoras, además, presentan una clasificación jerarquizada de dichas herramientas basada en la calidad y la cantidad de las herramientas TIC evaluadas. Al mismo tiempo, se propusieron algunas recomendaciones necesarias para realizar una buena presentación, así como se analizaron algunos de los errores más frecuentes que cometen los usuarios cuando elaboran presentaciones.

Palabras clave: Herramientas TIC, presentaciones, IRNet, Red Internacional de investigación-internacional, evaluación de la calidad y la cantidad