



## TEACHING OF MULTIMEDIA PRESENTATION CREATION

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**Abstract:** Multimedia presentation has its well-founded place in classwork and in the teaching process itself. Multimedia enables teachers to speak to their pupils and students through pictures and sounds. Computer presentation accompanies the teacher in the teaching process that thus becomes more comprehensive, well-considered and effective. In addition classwork supported by multimedia activities is more interesting and attractive for students. There is no doubt that the competence and skill in creating a multimedia computer presentation is one of the essential attributions of a teacher at any level of the educational system. We would like to outline the way of our realization of presentation creation teaching at Pedagogical Faculty of Ostrava University in Ostrava, Czech Republic. Our experience indicates that presentation creation must result from a detailed plan which is worked-out in advance. For the creation process itself, the student must be backgrounded with sufficient knowledge and skills in the presentation creation software (MS PowerPoint) – to create a template preset and shot succession, work with objects and animated effects, timing, etc. We give both onsite and online courses or a combination of both forms of lessons.

**Zusammenfassung:** Multimedia-Präsentation hat ihren fundierten Platz in der selbständigen Arbeit der Klasse und im Lehrprozess selbst. Multimedia ermöglicht Lehrern, ihre Schüler und Studenten durch Bilder und Klänge anzusprechen. Computer-Präsentation begleitet den Lehrer im Lehrprozess, der dadurch umfassender, besser durchdacht und effektiver wird. Darüber hinaus ist die selbständige Arbeit der Klasse, unterstützt von Multimedia-Aktivitäten, für Studierende interessanter und attraktiver. Es besteht kein Zweifel, dass die Kompetenz und Fähigkeit zur Schaffung einer Multimedia-Computer-Präsentation eine der wesentlichen Eigenschaften eines Lehrers auf allen Ebenen des Bildungssystems ist. Wir möchten unseren Weg skizzieren, wie die Pädagogischen Fakultät in Ostrava, Tschechische Republik es realisiert, die Schaffung von Präsentationen zu lehren. Unsere Erfahrungen zeigen, dass die Präsentationsgestaltung aus einem detaillierten Plan hervorgehen muss, der im Voraus ausgearbeitet wurde. Für den Schaffungsprozess selbst, müssen die Studenten einen ausreichenden Hintergrund von Kenntnissen und Fähigkeiten in präsentationsgestaltender Software (MS Power Point), zum Erstellen einer festgelegten Vorlage und der Abfolge der Bilder, Arbeit mit Objekten und animierten Effekten, Timing, etc. Wir bieten sowohl Vor-Ort- und Online-Kurse oder eine Kombination beider Formen des Unterrichts.

**Key words:** multimedia presentation, phases of the course, e-learning.

### 1. Introduction

Ability to work with office software (i.e. with text editor, worksheet processor, presentation creation tools, and so forth) belongs to the basic, essential skills of people today. Almost every employed person needs to work with a word processor; he or she does some text-editing, creates a table or presents his or her work achievements. These skills are considered to be the basic area of computer literacy and pupils and students at all educational levels are being taught them by their teachers.

There is no doubt (and it is also indicated by research), that the level of computer work, knowledge and abilities in the field of office software has been rising. Every person, able to do at least the basic operations on a computer, knows how to set the type and the size of a font, the ways of indenting a paragraph, how to adjust required page or worksheet appearance and how to solve a lot of small or more complicated tasks. Yet, experience confirms, that this knowledge and abilities have been achieved by experiment, in a non-systematic way, there is a lack of mutual connection and relationship between the gained skills. Moreover, they are used automatically, without any pre-consideration.

This fact raises a question: How to plan and organize the lessons on basic computer work in a way teaching students to apply the acquired skills in the right way, creatively and thoughtfully? How to teach students these abilities in a topical, effective and attractive way?

It is obvious that this cannot be reached by pure enumeration of choices in the option menu and by naming the meanings of various icons in the toolbar. Experience shows that the lessons can be grounded neither on endless text writing and text editing nor on a text model formatting. Students are asked to work independently in the lessons, they are to try various functions and look for their application and further possible ways of their usage. Classwork should be interesting and attractive for them, so that they reach the magical moment of acquiring the knowledge and understanding.

In our lessons we have focussed especially on the presentation creation teaching. We keep looking for its optimum shape and form. Further, we would like to outline the theory data of our teaching, analysis results of its effectiveness and the advisable course of our teaching in the future.

## 2. Theoretical Base

The target group are university students of Pedagogical Faculty, who are expected to win the qualification for their future occupation as primary and secondary school teachers. These students are learning various information and communication technologies applicable in educational process, in a school subject called *Educational Technologies*. Ones of the main areas of these lessons are presentations, their creation and use, multimedia presentation processing and their further practical presentation.

We used to apply a teaching technique which resulted from the classical concept: Students got acquainted with multimedia and computer multimedia technologies, they learned the way of drawing pictures, creating animations, recording sounds, doing videotaping and processing the videorecordings, all this having been done throughout the term work. Skills gained within the term work were, after it, applied for the multimedia presentation layout and finally, at the end of the term, used for multimedia presentation creation work. Experience shows the advantages and disadvantages of this teaching strategy (Nagyová, 2006):

- Students have developed knowledge and competence in the application of separate multimedia technologies; they were able to work up demanded pieces of work (texts, an animated picture, sound, and so forth).
- Students were able to exercise gained skills repeatedly, eventually to explain the process to their colleagues.
- Particular areas students had been dealing with in the lessons (work with pictures, sound, video) were perceived by them separately, they were not able to combine their discrete skills and create a compact final multimedia piece of work (presentation).
- Students created a lot of small works of no further use.

Critical considerations of these findings lead us towards a modification of the existing teaching concept (described above). We decided that every student would choose the theme of his or her final presentation at the very beginning of the course, i.e. before the training lessons start. Student will make a decision and specify his or her final presentation theme in a concrete project – in a scenario. Scenario will become the basis for created pictures, animations, sounds and so forth. This should make students focus on one topic deeply, for a longer period, and supposedly they will immerse themselves in the problem. We suppose this strategy will increase students' final level of knowledge and skills.

## 3. Teaching Process Analysis

Multimedia presentation projecting and creation lessons followed the intended, above outlined concept:

- at the beginning students chose the topic of their future multimedia presentation – they suggested and described a narrative or a short story with a pedagogic and educative content,

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- the theme was worked-up into a scenario, consisting of basic information on discrete snaps – description of intended texts, pictures, and so forth,
- students put together useful materials – background pictures, animated pictures, etc.,
- finally students created their own animation work.

Within the lessons, practised in a combined form (both onsite and distant forms of study), there grew up 150 presentations answering the assignment – 86% were made by women, 14% by men.

All students were able to suggest the scenario of their future presentation. 121 students elaborated scenario into individual snaps, remaining 29 students worked up scenario in a free way – describing the story to be realized in their presentation in words. Only 101 students described at least in words the objects desired to appear in the snaps. Not more than 7 students elaborated scenario in the form of a visual (graphical) layout.

Only 36 % of students succeeded in following precisely their scenarios when finally creating their presentations. The rest of the students made smaller or greater changes during the realization of their original plans. This was probably caused by the students' lack of ability to imagine the final product at the very beginning of the course, they did not succeed to concretize their inside visual ideas and bring the images into words.

Another task for students was to draw the future presentation background (its model study). Most students draw interesting pictures, some of them even quite complicated. Unfortunately, the resulting outcome of their labour was jotted by faults in technical fulfillment of the task (Viktorin, 2008):

- saving pictures in unsuitable format – 62 % students handed in their files in BMP format (an inadequately big file),
- wrong size of pictures – picture aspect ratio 4:3 (aspect ratio corresponding to the monitor aspect ratio) was chosen only by 30 % of students, most frequently in the size 640 x 480 dots. (For contemporary displays and overhead projectors, with their present-day resolution, this size is no more sufficient).

However, we can be pleased at least with the fact that 71 % of these pictures were eventually used in the final presentations.

Another kind of preliminary material was animated texts and pictures. They had similar imperfections as the above mentioned background pictures – they were in most cases made in unsuitable size with ill-adjusted background transparency. 82 % of students used their animated pictures in the final presentation, in which they had to be adjusted. Only 15 % of all created pictures were used further without any changes. Unsuitable picture proportions chosen during their primary creation was the main reason for their later modification.

In most cases, the final presentations realized a meaningful story pointed into an inspiring conclusion. The stories unwinded from the scenario suggestions, changes resulting from the lack of ability to imagine and visualize the final work at the beginning of the work. Presentations were well-balanced as for their complexity, effects applied in them being not disturbing, and they also had adequate timing. Sounds (if applied in a presentation) were significantly good components, either appearing in the form of read dialogues or employed in the form of various rush noises and sound effects.

The teaching output analysis (analysis of students' works) was inspiring for the specification of the indicated teaching concept of presentation creation.

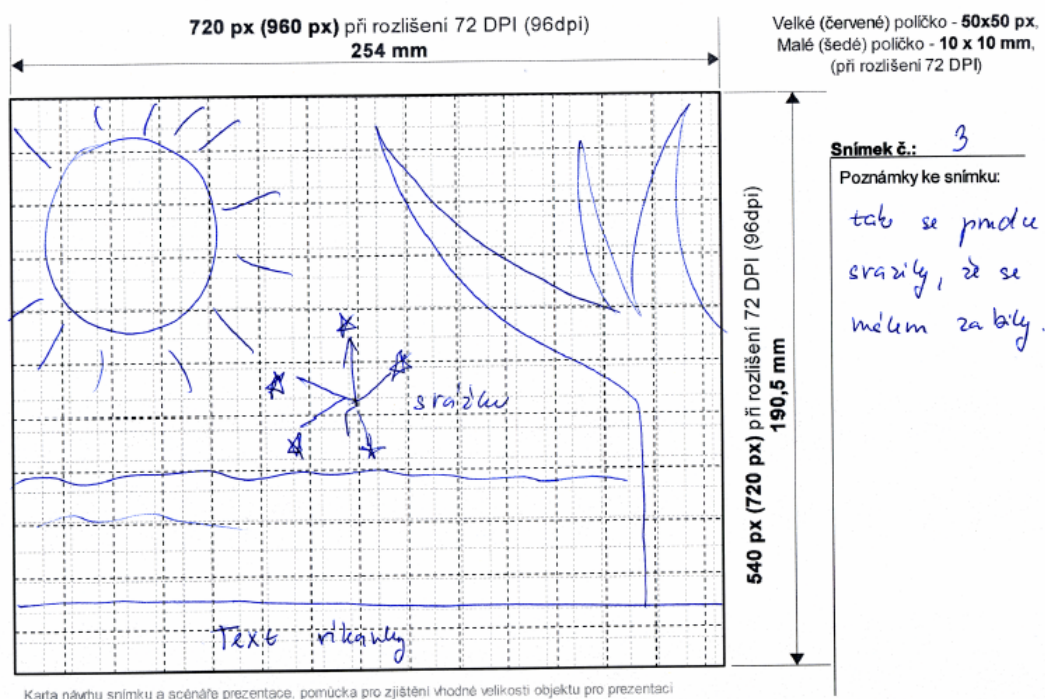
### 4. Suggestion of a New Teaching Concept

A multimedia presentation realizing a story or a short-story, must spring from a well-prepared scenario. Our experience documents the element information items of suggested scenarios, which are:

- visual project – a drawn picture including individual objects, their motion, shift and rearrangement, their fading, text information placement, and so forth,
- legend to depiction of discrete parts of the story,

- description of objects depicted in these snaps – the type of the object, animation, the object size (in centimetres) etc.

Presentation scenario can be worked up on scenario sheets (see picture 1) – for each presentation snap there should be one sheet of paper only, bearing the visual project of the snap, description of the appropriate part of the story and description of objects needed. (Viktorin, 2008)



Picture 1. One scenario sheet, one presentation snap

Scenario should be supplemented by elementary information on the presentation (title of presentation, target group it is focused on), information on the author's responsibility (name of the author, student number) and other information (the latest editing date, and so forth). In correspondence with the author's responsibility and ethics, scenario conclusion is expected to give a complete list of bibliographical quotations and sources used. This information is also supposed to be given in the corresponding created presentation.

The presentation work should run in compliance with the set scenario. Students put together required materials – pictures of demanded size, texts and sounds. They can draw some of needed pictures, especially pictures that cannot be found in cliparts or internet picture libraries, especially if they can inspire the resulting presentation – i.e. background images, authorising logo, etc. Considering up-to-date presentation software, it seems to be of no use to make animated texts and pictures – single objects can be animated directly in the presentation programme environment.

Following our analysis results, we can state that students overflow with thoughts and ideas for creative invention. Nevertheless, they often lack ability to realize their ideas, neither themselves, nor with the help of their teacher. If they still find their way to realize them, they are frequently incapable either to notice the quality of created work or, on the contrary, to come to terms with a low quality of their work, which discourages them from further creation activities.

The basic presumption for good and quality multimedia presentation creation is that students have the knowledge in these fields:

- picture formatting and ways of picture information saving (format and picture size, resolution, etc.)
- picturing information on the monitor – aspect ratio, resolution, and so forth,
- erasement of parts of pictures and transparency pre-set,

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- work with sounds and audio inlay into the presentation,
- size pre-set (both absolute and relative size pre-set) and placement of graphical objects into the snap area,
- effects usage, effects pre-setting and exploitation of tracks of subject positional movement in the presentation.

The indicated teaching concept can be realized easy way in the onsite form of lessons, because of teacher being off-hand and in contact with students, ready to influence their work, prepared to give needed information and demonstrate the functions. To carry the same kind of teaching strategy in the distance form of study into effect, it is necessary to provide students with off-shelf materials and aids. A comprehensive e-learning course could be an optimum method of making all study materials accessible to students. (Turčáni, 2003) Such a course should be organized in a way offering a surplus of information and stimuli for work to all students (regardless the starting level of their knowledge). The course must be flexible and interactive.

### 5. Teaching Concept Supported by an E-Learning Course

With the respect of the character and focus of the educational process, teaching should proceed in consequential steps – beginning with the motivation phase with drawing the student's attention, continuing through the exposition phase bearing the learning process itself, towards the fixation phase of repeated application and practising, until the gained knowledge- and skills evaluation followed by their professional use. (Kurelová, 1999) These phases are advisable to be used both in the wholesome concept of the course (presentation creation teaching), as well as in the strategy planning of particular lessons aimed at the development of individual skills (pre-set of transparent background, timing, presentation show, etc.).

One of the possible motivations for presentation creation, inspired by stories and short-stories, could be an image of a marionette theater, whereas the stage corresponds to the presentation snap model. There is also a movement of various subjects (characters) in progress on the stage. Student can do any stage managing in his simulated microworld of marionette theatre.

The presentation creation itself corresponds to the exposition- and fixation phase of the course. Student, as the creator (the mover of the story), discovers and repeatedly uses new potentialities and tools offered by the presentation software. Created work is used directly in practice, in the concrete lesson.

It is advisable that students go through a similar process when developing elementary skills. A motivating inspiration for picture processing could be, for example, the notion of a huge picture gallery, with constantly new expositions demanded to be held – i.e. picture size pre-setting, their placement, and so forth. An invitation into work with sound could be an image of a train, where individual spoken words or wholesome utterings are carried by coaches. Replacement of the coaches can give birth to new sentences. Another illuminative element could be the image of a kaleidoscope, a glass show changing its insight pictures at the movement of colourful little stones. Motivating microworlds help on the student be drawn into the presentation creation process, which provokes and encourages his or her inventiveness and creativeness, profoundly needed for all creating activities.

The concept strategy of the e-learning course for presentation creation teaching is as follows:

- At the beginning - the course is started with the motivation microworld ideas to provoke students' interest and creative thinking over the presentation scenario.
- Exposition phase – introducing several small microworlds as the initiating stimuli to students searching and discovering some of the presentation software potentialities (MS PowerPoint), for the sake of warming up students' concern in learning new techniques and skills. Motivation microworlds must be supplemented by basic information on possibilities, techniques, tools and ways of their exploitation in partial operations. Both text and multimedia forms (animation, demonstration of a video, audial inset, commentary, etc.) are acceptable.



- Fixation phase – time for the presentation creation itself. The course is to be interactive, easily manageable, with an intelligent course guide helping the student (presentation creator) at every moment he desires to find useful information.
- At the end – there should be student's work evaluation, created work presentation.

## 6. Conclusion

Indicated concept of the course has arisen from years of teaching experience we have won during multimedia presentation lessons. At this moment the course is being prepared to be launched in our lessons, supposedly in the winter term of the coming academic year.

We are expecting the course to be supplemented by an apparatus - monitoring students' movement in the course. We hope these data, documenting the course phases in relation to students' attendance, pointing at students' choices of materials and the purpose of using it, etc. could be farmed out in the future on the meaningful way of looking for the optimum form of e-learning courses.

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