The Skills of Creating PowerPoint Slide for Classroom Teaching

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Abstract. Multimedia teaching has become an indispensable teaching methods in the college classroom. The PowerPoint slide (PPs) is the more commonly used multimedia in the classroom. Therefore, the color of background, content, and the layout of content (such as text and chart) design in the PPs courseware were analyzed in this article, respectively. To create the quality PPs courseware, a clear design ideas on teaching content, objectives, and students should be finished first, then the appropriate form of background and content color design are carefully selected before creating a PPs courseware. This work provides a reference for the college teachers in creating high quality PPs courseware.

Introduction

With the development of information technology and the Internet, a variety of new teaching process, such as MOOCs, micro lessons, flipped classroom are emerging in the university. Meanwhile, new teaching methods were combined with the computer also continue to be used for classroom teaching, which have a huge impact on teaching effectiveness. All these successful teaching processes are generally inseparable from multimedia such as PowerPoint slide (PPs) courseware. PPs can be created by Power Point software, which is the part of office software developed by the Microsoft corporation in 1987. Power Point software is characterized by its easy to learn and use, simple design, time-saving, material-richness, etc; Sequentially, PPs courseware as a common means of knowledge carrier, has become an indispensable teaching tool [1]. High quality PPs courseware can be enjoyable, and bring the better teaching results; whereas the attention of students can be distracted by a low-quality PPs, and the phenomenon such as play phone, trance, drowsy are readily observed at students in the classroom [2].

Thus, how to design a better PPs courseware has become an important issue for a teacher after his/her teaching content was determined. Many teachers occupy the busy teaching and research activities in university, but they are still concentrated on the design of multimedia courseware (e.g., PPs), and also hope to improve the quality of teaching effect through the high-level and high-quality courseware. This article analysis the design of the high-quality PPs courseware by its appearance and content to provide a reference for teachers.

The Appearance

Background of PPs Courseware.

Background could be considered as a variety of materials designed for teaching content to achieve a certain teaching intentions or goals, which is consisted of the colors, images, animation, and sound, etc. Among these, the colors are the most important factor for background design of the PPs courseware, and the desired background color can be obtained by variation of "primary colors" of the R (red), G (green), B (blue) values. Generally speaking, the visual communication of a PPs courseware can be finished by a kinds of color, but the monotonous is inevitable.
The quality of PPs can be improved further when the different slides are given the different color. This is because the difference of the color of the background requires the technical of a teacher in the design of courseware process, especially in colors, lines, shapes and other factors used in the layout on the page. The requirements give PPs courseware designer a broader space to think, and make slide to be a more powerful expression. So that the audience will have the aesthetic experience such as coordinately, contrast, unity, harmony, transition, equalization, and echo, and these also strengthen the attraction and influence of a PPs courseware [3].

**Contrast of Background and Content.**

As we know, the aim of a high quality PPs courseware is to convey the contents to the audience. Therefore, a clear teaching content and objectives, and the learner analyze should be finished, then selecting the appropriate form of background color before making it. For some complex and abstract content in the teaching process, you can select the appropriate artistic elements to improve learners' interest in learning and make the teaching content easy to understand. The learner also is easy to focus on teaching content with active thinking, finally reach the unified aesthetic of teaching content and visual perceptions in the PPs courseware.

The method of using different color (e.g., main or secondary color) in the different proportion of PPs courseware can give the student a feeling of emphasis. The main color is the focus point of the whole picture and the center of the visual, and its brightness, size, saturation, have a direct impact on the existing form of secondary colors and visual effect of the overall picture [4]. Besides, the function of the secondary color in the overall picture should balance the main color and visual dispersion effects to reduce the visual fatigue of viewer. For instance, when using two or more strong contrasting colors in the PPs courseware, a balance colors such as black, gray, white, etc. should be given to offset the impact of other color. Firstly, the brightness, contrast, and the space which occupied by specific colors, and then select courseware in secondary color. For example, as in the PPs courseware selection on a light background is easy for learners to grasp content and maximize the learning efficiency.

Background color can usually be the similar blend color to produce clean and pure feeling, and the color between text and background should be contrast to enhance the impaction and the text expression. To enhance contrast, the hue brightness, saturation principle of color of text and background also should be consideration. For example, the match of yellow and blue, red and cyan, green and magenta can improve the contrast with the strengthening effect[5]. Text can also be used dark background with bright color schemes, such as black and white, to enhance the brightness difference between text and background, and strengthen luminance contrast further. This kinds of PPs courseware can solve the problems such as the different of the high-contrast display on computer and low contrast on the projector screen in classroom effectively.

**Content Design**

It is necessary to have a clarified PPs courseware design ideas before creating a PPs courseware, such as how to build the overall framework of the transitional arrangements between the courseware chapters. Generally speaking, the cover, catalog, page navigation, content, and the ending are the major element of a PPs courseware. A beautiful cover of courseware may give students a deeper first impression; the dialog will supply the mainly teaching contents of this chapter in courseware to enable students to "know what"; the navigation page to give students a clear teaching process of the class, while the ending will form the echoes of the cover via expression your thanks or leaving contact information, inspirational quotes, etc.

The typesetting problem will be finished after the confirmation of overall framework and hierarchy of the PPs courseware. A good or bad PPs courseware mainly depends on the layout of content. The problems for many teachers are the layout designation too freely, resulting in the lacking artistic sense of PPs courseware. The layout of courseware is including many aspects, and the elaborating in terms by the text and graphics setting arrangements in here.
Text Settings.

Unlike other PPs courseware for presentation, there are more text messages in it for the classroom teaching, and typesetting will affect the beautiful of a courseware significantly. Thus, the text part of the PPs courseware should try to choose a better uniformity of stroke fonts such as Chinese Song, Microsoft elegant black, Founder crude Song. Because these fonts have the consistent stroke thickness, and concise in the details of the text, and distinction stroke thickness is not obviously between word and word. These fonts are presented to projector still clarity. For example, the font combinations of Chinese Song (title) + Microsoft elegant black (text) or Founder crude Song (title) + Microsoft elegant black (text) can give the PPs courseware a feeling of very simple.

The font size of the PPs courseware should reflect the clear hierarchy between its content, such as chapter headings, section headings, body text, graphics and text. The font size can not be set too small or too large, and the basic principle is to make the students sitting in the classroom at the last row can also find the words clarity on the screen. According to my experience, text font size of the PPs courseware should not be less than 24 when used in the general classroom.

In addition, the space between the two lines should be noted. Too small of the line spacing of body text can make the students feeling uncomfortable, and decrease the learning passions.

Chart Content Settings.

Some research shows that the effectiveness of transfer of information is usually in the order of Figure> Table> Text. Therefore, the chart is an essential element in the PPs courseware. Usually, using the charts in courseware are encouraged, because the charts is easy to observed, and also readily help students to exchange of thought and expression, and understand a topic further.

In the slide, the charts is not better with the increased number, that is, the selection process should be carried out. Usually, orderly arrangement of the charts are look better than a simple stack. For photo-text PPs courseware, recommended that the text and image separately, because the text was put on the colorful picture, easily lead to the effect of "drown text into image", and affect the transfer knowledge of PPs courseware. However, if typing in the picture is necessary, you can add semi-transparent background color to text or draw text in the image space to solve these questions.

Layout Arrangements.

Fonts, colors and graph selection are the more details at the courseware design process, but from the overall process, its is related to the entire layout arrangements of PPs courseware. Usually, the layout arrangements have the following types:

(1) standard. This is a relatively common and simple layout type rules. Generally use a top-down manner which arranged in logical order in line with the psychological sequence of human cognitive and thinking activities processes, it is possible to produce better reading results.

(2) left set type. This is also a relatively common type of the layout, according to the reading habit of human is from left to right, the layout of the elements on the press was set from left to right.

(3) inclined type. Also known as the diagonal layout, refers to the elements on the layout to make appropriate tilt to the left or right, so that flow up and down the line of sight, the picture generated movement.

(4) axial type. Belong symmetrical layout effect, gives a good sense of balance.

(5) circular patterns. means when publishing a semi-circle or a perfect circle is made the central forum, more visually compelling. This layout can contain more content, more suitable for the page content, but must be in a same slide.

(6) cross type. Refers to the pictures and titles are stacked, can cross into a cross, but also for a certain tilt. This increases the cross-layering forum.

(7) Repeat type. Refers to repeated elements arranged in the layout. This layout has a strong appeal, the layout can produce a sense of rhythm, increase the screen fun.

(8) Text. Refers to text is the forum theme, image only embellishment. This arrangement should strengthen the appeal of the text, and graphics play a finishing touch.
(9) the whole pattern. The total layout with a picture, the picture may be characters, it can be close-up scene in the picture directly into the appropriate position title, description text or logo graphics. This layout, it can open thinking, make people think.

(10) scatter type. Refers to components in the layout for irregular, results to relaxation visual effects.

(11) checkerboard. Refers to the layout of elements on the composition in the form of checkerboard squares. This arrangement gives the casual relaxed feeling, and the layout is more suitable for the page with the more contents contained images and text.

(12) horizontal. Means the layout elements arranged in a horizontal direction, is a quiet and peaceful arrangement in the form.

However, we also can use the some features (e.g., looking preference) of student for the layout arrangement: put diagram above and text below to promote learner master illustrations for the content. If the text is more important than others and illustration just for supplementary material, then the text can be putted on the left and diagram right for improving the learner's attention [6].

Summary

Undoubtedly, multimedia courseware teaching has become a major component of teaching in universities, PPs courseware models and tools often used in the teaching process, and also increasingly become a trend. A beautifully designed PPs courseware not only has many tricks in the background color, background colors and content, but also in terms of which the text, graphics and other page layout also has many exquisite.

However, the computer skills among teachers are quite different, the school should carry out the related training to improve teachers’ PPs courseware design skills. In addition, colleges and universities as the dissemination of knowledge and ideas, and the teaching reform and research frontier should also be increasingly research the trend of the teaching mode of study and discussion, in order to play its greater role and advantages for teachers’ teaching and students’ learning services.

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References


