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Abstract

BluffTitler application has broad options to create and edit 3D animated graphic objects. Generated output images can easily be exported, specifically, as TV-news video simulations, which renders it possible to use the software for educational purposes.

Introduction

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Implementation of cross-curricular educational projects facilitates and encourages formation of universal learning activities helping to integrate various disciplines, which is highly important today in the context of the second generation Federal State Educational Standards (FSES) in Russia [1-3]. In this study, we have endeavoured to develop an educational projects organization model aimed at producing videos simulating TV broadcasts by their style and design (Fig.1-5). We managed to achieve this goal through the use of BluffTitler application, a program developed by Outerspace Software, a Dutch company based in the Netherlands. Demo version of the program is available for trial as free (public domain) software.

We have been practicing the use of BluffTitler for the educational projects organization since 2012 and strongly believe that it can be considered a unique teaching technology in media education promoting, inter alia, professional orientation of students and focusing on the development of their key competences, increasing their motivation and broadening their common cultural outlook. Our observations demonstrate that due to the popularity of television and a high social status of professional TV broadcasters, participants of these projects show far more positive assessment of their own skills and abilities, which can be used for building communicative competences of school students experiencing difficulties with such subjects as foreign languages [4-6].



Figure 1. News_3_Red design of virtual TV studio.

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Figure 2. Sport_2_TrophyZoom design of virtual TV studio.



Figure 3. News_5_Orange design of virtual TV studio.



Figure 4. News_6_Aqua design of virtual TV studio.



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Figure 5. Examples of intros made with BluffTitler.

The following are the examples of the projects we have developed by present: "The Problem of Visual Aggression", "Team Building Camp in Lembolovo", "Sports and Sporty Students", "Leningrad", etc., all focused on enhancing cross-curricular interchange (IT, Science, English, Literature, History etc.) and development of universal learning skills that students master in the course of collecting and processing all the information necessary to solve the training-related tasks.

Implementation stages of our projects are listed below:

- Material and technical resources consolidation
- Setting problems, formulating the purposes and tasks by the students
- Projects planning and casting by the participants
- Collecting materials: videos, photos, interviews
- Deliberation and analysis of the collected material
- Presenting the work results in the form of short documentaries simulating TV broadcasts (collecting the completed work products)
- Analysis and discussion of products by the project participants
- Final presentation

Pursuant to the current FSES (in Russia) applicable to basic general education, educational establishments must provide all the necessary materials and resources for ensuring educational, administrative and economic activities. The list of the necessary resources includes school television. Preparing the necessary materials and resources includes purchasing the following equipment required to implement the model we have developed:

- 1080P HD digital video camera
- PC (at least Intel Pentium-compatible CPU, 2 Gb of RAM, minimum, and at least 250 Gb hard drive storage capacity)
- BluffTitler desktop application with Virtual Studios, Broadcast, Newsrooms, etc. template packages
- Free software including programs for converting video from one format into another, with sound and video editing possibilities
- Chroma key (green) screen for photo and video shooting
- At least 1 kW studio lamps
- Microphone, personal computer or digital video camera connectable (for higher quality parallel sound recording)
- Video camera, chroma key screen and studio lamps supports.

Chroma key video shooting of students (green background) with the subsequent input of the generated video recordings into BluffTitler application results in the green background becoming transparent and building in the produced images of students into the virtual TV studios available in the Virtual Studios template package.



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We have compared the video materials generated by the projects participants with similar videos made, moist commonly, at supplementary education establishments or during educational excursions. Results of such comparative analysis show that none of the videos analysed contain chromakey video shooting and TV studios simulation, which indicates the novelty of the model we have developed. This model's hallmark feature is the use of BluffTitler software with Virtual Studios template package for the work product presentation.

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When developing the model all the educational projects were planned and implemented under the leadership of the same teacher, however, integration of several academic disciplines can be combined with the collaborative approach of teachers of three and over school subjects: Informatics, Science, English, etc.

Possible difficulties related to the model introduction into the work of educational establishments are associated, inter alia, with mastering the necessary software, since the process of creating videos with three-dimensional graphics requires preliminary training of teachers (usually by means of non-formal and (or) informal education). For the purposes of promoting the model we have held a series of master classes for teachers and deputy directors of schools and organized the training of teachers based on the program of additional professional education ("Use of Modern ICT Technologies when Organizing Project Activities for Students following the Introduction of the Federal State Education Standards" [7]).

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