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TECHNOLOGY OF CREATING MULTIMEDIA EDUCATIONAL RESOURCES ON THE BASE OF AUTHENTIC AUDIO- AND VIDEO MATERIALS IN ISPRING SUITE PROGRAM

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The article considers the iSpring Suite course authoring software as an optimal software program developing for multimedia educational resources on the base of authentic audio and video materials. Digitalization of Kazakhstani education requires from teachers developing their digital skills to use and create their own multimedia educational products to achieve provide learning outcomes and achieve corresponding teaching aims. The problems of defining multimedia, the possibilities of iSpring Suite authoring course software in teachers' developing multimedia educational courses and applications on their own are discussed in the present study. The authors describe the technology of creating multimedia educational resources in ISpring Suite program as well as the peculiarities of working with the authentic audio and video materials while developing multimedia educational products. The effectiveness of ISpring Suite authoring course software is proved by the pedagogical experiment aimed at preparing students for the development of multimedia educational products based on authentic audio and video materials in the mentioned program. In the result of the experiment students scored 60% and more points in the final assessment which indicates the achievement of the heuristic level of training by the participants, implying formation of the necessary basic knowledge and skills as well as their reproductive activity in the field of designing educational multimedia resources.

Keywords: multimedia, multimedia educational resource, digital skills, authoring course software.

Introduction

At the present stage of development of Kazakhstani society, we can talk about its active digitalization, when digital technologies have a significant impact on the formation of the country's information space, areas of economic development, education and communication methods. In Kazakhstan, digitalization of education is one of the leading directions of its reforming. In the context of the language education, modern Information and Digital Technologies make it possible to effectively solve the problem of organizing an optimal information and subject environment for teaching foreign languages.

The purpose of this study is to consider the iSpring Suite program as an optimal, easy-to-use software product for the effective inclusion of authentic audio and video materials in the educational process in the form of a single educational multimedia resource. Using the methods of system analysis and an integrated approach to the issue studied, the article solves the tasks of highlighting the problems of teachers' insufficient training for the independent development of multimedia educational products, necessity of developing their digital skills and competencies in the field of technology of designing multimedia resources, which meet the corresponding pedagogical - psychological, didactic and technological requirements; it also describes the technology of creating multimedia resources in ISpring Suite program as well as the peculiarities of working with the authentic audio and video materials while developing multimedia educational products.

Theoretical review

Mayer regards multimedia a form of presentation media, with such components as sound, animation, text, graphics, and video [1]. Fenrich states that multimedia presents the combination of computer hardware and software allowing to integrate video, audio, graphics, animation and text in order to create an effective teaching tool on an affordable desktop computer' [2]. Pereverzev notes that multimedia implies, on the one hand, the use of different types of perception to convey information to the user (student), on the other hand, it defines specific tools for introducing material: text, hyperlinks to additional sources of information, pictures, scale, video [3].

Vaughan considers multimedia as a combination of different sources of information (video, sound text and animation) delivered by a computer [4].

According to Moore et al. multimedia is the coordinated use of a number of media devices, for example, such as slides accompanied with an audiotape [5].

Abbas develops an idea that the concept of multimedia has emerged from the appearance of sound cards, compact disks and video became an effective educational tool and is regarded now as an independent field [6].

It is undeniable that the effective use of multimedia aimed at creating an authentic learning environment for learning a foreign language greatly enhances language acquisition. Mayer in his work explains that watching video, with seeming passivity, can include high cognitive activity necessary for active learning: "... carefully thought-out multimedia teaching materials can contribute to an active students' cognitive process, even when they seem outwardly inactive" [7; 19]. The content and context of audio and video materials are important elements for engaging learners in the teaching process as active participants, their content must be appropriate for the learning objectives and learners' age and skills.

In terms of digitalization of education teachers are required the ability and corresponding skills not only to use, but create multimedia educational resources to achieve their teaching tasks. Redecker, C. state that educators today are challenged to develop their digital skills to update their educational activity and make it more effective for learners. [8; 15].

Conrad states that teachers should not only develop their digital skills, but change the attitude to positive one in regard to digital transformation of education [9; 15]. Discussing the problem of digital skills properly, it can be noted that despite the fact that they represent a special group of expected results of vocational education and training, nevertheless, they can be attributed either to universal competencies (soft skills, which are digital skills, characteristic of the general population: those used to work with applied (office) programs, digital equipment and information (searching and surfing on the Internet), communicate in the digital environment), or to professional competencies (hard skills which represent the expected results of the professional education) [10; 37]. The convergence of professions in the digital age leads to the fact that the line between the universal and professional competencies becomes conditional; a set of universal and professional competences in relation to different professional activities can "flow" into each other: what is universal competence for one professional activity may be professional one for another, and vice versa [10; 79].

In terms of digitalization and supporting developing of teachers' digital competencies in our country we can mention that within the frames of realization of the State Program "Digital Kazakhstan" for 2017-2021 years the educational portal THESIS.KZ in conjunction with the Republican Information and Methodological Center "September 1" 1september.kz is implementing the project "Digital School" - "Digital School". The project is designed primarily for teachers: the development of information culture in a modern school, the creation of digital educational environment, the popularization and practical development of new electronic educational products [11].

Studies show that the need to provide pedagogical and technical support for teachers for the effective use of digital technologies is a decisive factor in the development of digital competencies of the pedagogical staff. For example, according to research by the European Commission and Education, Audiovisual and Culture Executive Agency (EACEA), teachers' own perceptions of the benefits of digital technology in the educational process also confirm that the right skills and positive attitude are critical to the effectiveness of these technologies. According to the 2nd School Survey, which looks at "progress in Information Communication Technologies (ICT) in education" along with "equipment-related factors", it is clear that teachers see the lack of appropriate skills and pedagogical models as an important obstacle to the use of ICT in the teaching process [12].

Rossikhin et al. state that the result of the integration of new Information Technologies into education results in appearance of the modern teaching tools and on the whole facilitates the learning process, but the usage of the latter in teaching should be methodically proved in order to avoid the opposite effect when the educational process turns into an entertaining one, lacking the real knowledge [13].

We share the point of view of Radford in the aspect of appropriate application of multimedia content in the teaching process which is diminished by the technological component of using multimedia educational tools often miscellaneously regarded as prior to the its methodical concept [14].

Glavas and Schuster state that in spite of the growth of usage of digital and multimedia technologies in education there is still a lack of principles of integrating electronic learning into teaching process. The authors consider four design principles of electronic work integrated learning (eWIL) such as authenticity, integration of technology, effective support processes, and fostering of co-presence and relationship building. The study showed the importance of understanding of the given principles in the frame of the electronic work integrated learning [15].

Research design and methods

The possibilities of iSpring Suite course authoring software in creating multimedia educational resources

Foreign language teachers may face certain difficulties in creating their own multimedia products as they don't have special skills of programming electronic resources. In this regard it becomes clear that the teachers today are in great need of an optimal software instrument allowing them to develop their own multimedia educational applications and resources not being engaged in complicated process of their programming. The digital format of authentic audio and video materials under modern educational conditions as never before creates the prerequisites for their presentation in the format of ready-made multimedia educational resources that provide the ability to provide feedback, adaptability to the individual characteristics of the learner, interactivity and automation of control. The development of multimedia teaching aids based on authentic audio and video materials will allow a foreign language teacher to integrate them into the educational process using applied and instrumental software with the possibility of their technical adaptation, editing and creating the appropriate electronic methodological support in the form of a set of exercises that implements an interactive approach to learning. The main advantage of multimedia learning resources is their interactivity, that is the feedback from learners in the process. Control mechanisms built into multimedia courses and manuals provide the learner's support with tooltips, animations, sound effects, audio and video materials. In addition, an effectively developed multimedia course will be accompanied by a system of controlling the acquired knowledge on the base of interactive components. One of these products allowing teachers to develop multimedia educational resources on their own without involving information technology specialists appears to be iSpring Suite course authoring software. The "course authoring software" term in the e-learning environment refers to programs which purpose is to design interactive and multimedia e-learning aids (courses) and embed the resulting product in convenient presentation formats like HTML, Flash, as well as in such educational materials formats as SCORM, AICC, IMS, Tin Can for uploading and publication within the Distance Learning System.

The peculiarity of iSpring Suite program is that it is not an independent software product, but an additional option to MS PowerPoint - a widely known application for creating presentations in the educational environment, included in the Microsoft Office package. The advantage of iSpring Suite is that the program allows you to design a professional multimedia textbook or course thanks to the ability to embed multimedia content, that is, recording audio and video, importing and editing audio and video tracks, as well as interactive components, links, animations and tests. The course is assembled from ready-made blocks as a constructor.

After installing the iSpring Suite online course builder on your computer, PowerPoint will have a separate toolbar (Picture 1).

Picture 1. Toolbar of the iSpring Suite iSpring Suite course authoring software



Thus, the teacher has at his disposal an arsenal of PowerPoint capabilities for designing multimedia courses: it is possible to change the size and format of the slide, add artistic effects, import video clips and

pictures, adjust them in size, contrast and brightness. To design the course, you can use the content library built into the program, counting about 60,000 pictures, slide templates, backgrounds, icons and buttons.

iSpring Suite software is a set of specific specialized modules under a single interface:

- iSpring Narration Editor (module for recording sound and video on a slide with the possibility of further editing);
- iSpring Visuals (module for creating interactive support);
- iSpring TalkMaster (module for creating dialogue simulators). The module allows to create non-linear versions of scenarios for communication with learners; adapt the design of scenes (background and characters); record and add tracks for text scoring; evaluate the correctness of the selected answers and give the result of passing the simulator;
- iSpring Cam (screen capture module which allows recording from the screen - screencast);
- iSpring QuizMaker (module for creating tests) is designed to create interactive tests and questionnaires. With its help it is possible to automate the process of assessing learners' results.

As can be seen from the description, the iSpring Suite program allows to easily insert various multimedia components of the course in the form of audio and / or video fragments, videos from YouTube that are difficult to add using Power Point. In addition, the program allows to add the necessary additional materials on the topics studied in the form of instructions, tips, drawings and pictures. Using the Links button on the iSpring toolbar, one can attach various file formats to the course including .doc, .pdf, .jpg, etc. and web links. For the latter, it is possible to adapt the opening options in the same window or in a new browser window. The attached files are also available for downloading.

Technology of processing authentic audio and video materials in the process of developing a multimedia educational resource

When creating multimedia educational resources based on authentic audio and video materials, it is necessary to take into account the peculiarities of their presentation in the educational process. This applies to the methods of presenting authentic audio and video materials, the methodology for selecting the audio and / or video fragment included in the lesson (news, feature films, news, documentary programs, screened plots, commercials) for the purpose of teaching a foreign language, taking into account the didactic and methodical requirements and conditions. When compiling a multimedia training course (tutorial), the following stages of working with authentic audio and video materials in the educational process should be implemented:

- study and selection of the audio and video materials according to certain criteria in accordance with the methodological tasks that must be solved with their help in the learning process;
- editing the audio and video materials in order to reduce them for presentation while classroom work to optimize the loss of time resources; in order to select significant plots and storylines regarding a grammatical and / or lexical topic, as well as dividing a whole audio or video product (audio and video programs, lectures, films, etc.) into parts for sequential listening / viewing to optimize learners' time and emotional costs to process visual, verbal and sound information while working in class and independently at home.
- creation of a set of exercises for selected audio and video materials, which implements an interactive approach to learning located within single educational resource;

Working with the authentic audio and video materials in the process of developing a multimedia educational resource is based on constructive editing techniques, consisting of technical and methodological aspects. Authentic audio or video materials are listened to/viewed in order to select thematically relevant audio/video clips, which are then technically processed without changing the language content, grouped in a certain sequence and placed in the corresponding environment (program) for creating a multimedia training course or manual. Editing presupposes the maximum preservation of the socio-cultural specifics of a real situation that simulates speech reality.

Developing multimedia educational resources based on the authentic audio and video materials in iSpringSuite course authoring software

We differentiate the following stages of developing multimedia educational resources iSpringSuite course authoring software:

1. Designing a multimedia educational resource (course, tutorial, application) on the base of PowerPoint presentation.

2. Adding authentic audio and video clips on the topic, editing material if necessary. To visualize and improve the perception of educational material, it is recommend to insert multimedia files in formats: audio (*.wav, *.mp3, *.wma), video (*.avi, *.wmv, *.mpg, *.mp4, *.mkv), videos from Youtube, flash-animations (*.swf, *.flv). iSpring Suite allows to add files with one click of the mouse on the quick access panel without resorting to the help of other programs.

Using the iSpring toolbar in PowerPoint, you can easily record or import audio and video accompaniment to a topic, as well as synchronize it with slides and presentation animations. Objects on the interactive canvas can be edited in the same way as on a PowerPoint slide: add videos, images, text blocks. It is possible to move and resize them to place accents. For example, it is possible to expand the video to full screen, or temporarily hide the video and show the key findings on the topic.

It is also possible to import a ready video fragment into the presentation as a video clip or record it in the editor. However, the user (learner) can independently change the proportions of the slide and video in the player window, depending on what he needs to focus on: the video of a lesson or presentation or the course material.

The audio / video editor is used for recording audio and video files, importing, synchronizing with animations, as well as editing them. There is a video studio for editing interactive videos, which allows to add hints to screencasts, edit video in the built-in editor, add video and audio to slides, insert ready – made or authentic video from Youtube, include sound fragments from a computer or a storage device, carry out technical adaptation of the authentic audio and video material: mix different tracks, change the video speed, trim or cut unnecessary fragments of imported audio and video materials, trim the beginning and end of tracks, edit sound volume, remove noise, paste fragments of audio and video materials together, set up smooth transitions between scenes and make screensavers if necessary. At the same time, the quality of file processing is not inferior to the quality of professional editors.

Editing audio and video materials from different tracks is not limited by their number, you can add as many layers as required. iSpring Suite allows to edit videos from different tracks, add audio, and even show two video clips at the same time. One can cut out unnecessary video or paste together video fragments from different takes.

The iSpring Cam module allows to record video from the webcam and the screen at the same time, which makes it possible to create educational videos in which the presenter comments on what is happening on the screen. The "Screen Recorder" function gives the possibility to make video capture of the computer screen, record voice guidance, highlight the mouse cursor with color. Moreover, the recorded video can be immediately viewed, edited, inserted with sound, images, text, other videos, effects; it can be saved in .mp4 format, and also be inserted into a course, presentation or uploaded to YouTube. While recording a computer screen, the editor remembers all mouse clicks, keystrokes and adds text tips to the lesson. A hint is available for editing: you can change the size, edit the text.

3. Development of interactive tests. An effective e-course includes not only slides with teaching materials, but also tests to control learners; educational achievements. iSpring provide the possibility to quickly create interactive quizzes and surveys using the iSpring QuizMaker module. The simplest and most effective way to test a learner's knowledge is a graded test. This type of test allows you to assess the correctness of learners' answers and assign points for passing the test. The iSpring QuizMaker module provides ample opportunities for creating tests and surveys for the topic studied, authentic video watched or audio material listened. The following options for creating test items are available: true / false option, single and multiple choice, written answer, placing objects in the correct sequence, filling in gaps in the text, choosing from drop-down lists, dragging words into spaces in the text, selecting an area on the image, matching (drag & drop of objects) and building the correct order, Likert scale, essay writing (extended answer), etc.

Test questions can be compiled with questions from the random groups. For each question notifications, attempts, points can be configured, the maximum time available for an answer can be established and definite design decisions can be settled, e.g. changing the font, color scheme and layout, adding a picture, video or formula. It is possible to adapt the feedback to the answers - the test provides a detailed explanation for each task. In case of an error, the learner will see a message with the correct answer with an explanation. It is also possible to create questionnaires to collect information without

evaluating the correctness of the answers. Each test question can be supplemented with an image, audio, video or Flash-video, as well as a formula. In addition, you can also adapt the text style and insert hyperlinks. Answer options can also be supplemented with an image or a formula. With iSpring QuizMaker, it is possible to adapt navigation, shuffle questions, select a player, and edit all messages and captions.

With the TalkMaster, you can organize your tests in the form of a dialog. The dialogue simulator is essentially a game in which the learner answers questions by choosing one of the proposed answer options. The TalkMaster option simulates a conversation with a real person, helps to memorize the script (text for dubbing a video lesson), to work out the consolidation of lexical or grammatical material in a dialogue form, to check the assimilation of the material, etc. Creating a dialogue is simplified as much as possible: using ready-made templates, the creator just need to add text, select a background and a character from the built-in library, voice the character's lines and set points in the settings for correct answers.

4. Creation and insertion of interactive blocks. The iSpring Suite comes with ready-made templates used to design courses. These templates are called interactivity. iSpring Visuals is a component of iSpring Suite that allows to create interactive elements. Examples of interactive content created in the iSpring Suite editor are quizzes, quizzes, flip books, alphabetical catalog, interactive simulators, FAQ databases, and Timeline interactivity. It should be noted that interactive components can have a high degree of multimedia due to the embedding of audio, video, animation, graphics. With iSpring Visuals, you can quickly and easily develop interactive timelines, instructions, magazines, reference books, glossaries, electronic "helpers" for exam preparation. This allows learning to be active and fun.

iSpring Suite Visuals editor allows you to add 4 types of interactivity:

1) a book with a page turning effect. This interactivity is effective when it is necessary to place extended information blocks on the presentation slide. A 3D book with a flip effect is embedded in the presentation. The program allows to design the cover and pages of the book, the creator can also select the viewing and paging modes of the book.

2) the "question-answer" database is a set of tabs located one under the other, the contents of which are expanded when you click on the tab title, like Wikipedia. In the course, interactivity can be used as short answers to summary questions for a section or course, as well as in the form of background information.

3) catalog (glossary). Interactivity is used to access ordered reference information. The catalog consists of a number of items, arranged in an alphabetical order. The author can place audio and video fragments, text, pictures in the description of structural units. Examples of interactivity can be represented by a dictionary of terms and definitions, a dictionary of foreign words, etc.

4) "Timeline" interactivity displays a sequence of any periods, stages containing a certain time interval (event).

The use of interactive elements makes it possible to organize the text or graphic information.

5. Publication. E-learning courses created in iSpringSuite course authoring software can be posted on the Internet, sent by email, burned to CD/DVD, and also uploaded to the LMS. Courses can be downloaded to any distance learning system that supports SCORM 1.2, SCORM 2004 and AICC standards.

Pedagogical experiment on preparing students for the development of multimedia educational products based on authentic audio and video materials in ISpringSuit program

The purpose of the pedagogical experiment preparing students for the development of multimedia educational products based on authentic audio and video materials was to increase the level of training of future English teachers in the development of multimedia teaching resources in ISpringSuit program. 57 students majoring English were engaged in the experiment carried out on the base of the Faculty of foreign languages of Karaganda University named after Ye.A. Buketov. The experiment consisted of three stages, namely, including initial testing of the background knowledge of the students, providing the basis for further training in developing multimedia educational resources, the process of training itself and the final assessment of the knowledge and skills acquired.

At the first stage (stating experiment) the initial level of students' level of training in the field of multimedia teaching resources was determined. As a method for determining the level of training, a test

aimed at checking students' competencies in the development of multimedia educational resources including their theoretical knowledge in the field of IT application in education as well as their skills of using the applied and instrumental software tools for their development was chosen. The test included 2 blocks of 8 questions: Block 1 included questions on the basic concepts in the field of informatization of education; implementation of Information Technologies in education; programming languages and programming tools; Block 2 was devoted to the methodological foundations of using electronic and multimedia teaching resources in teaching foreign languages; methodological aspects of applying Information Technologies in teaching foreign languages.

The average number of correct answers to the questions of the first block was 51%, to those of the second it was equal to 59%. This allowed us to conclude that students had the fundamentals of theoretical and practical knowledge and skills necessary to master the content of the training discipline, but they did not have sufficient knowledge in the development of multimedia educational resources, which made it possible to conclude that it was necessary to train students to develop mentioned above multimedia products.

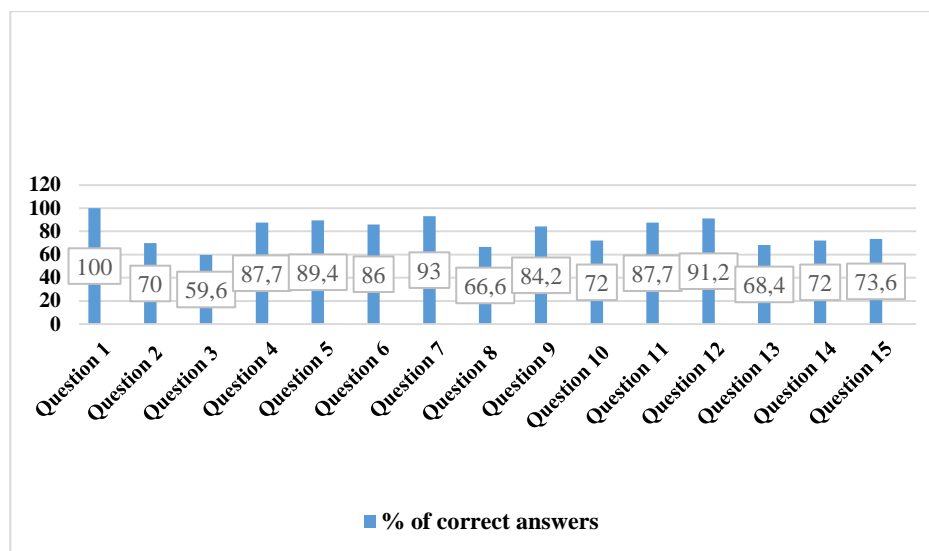
During the second stage of the experiment, students were trained to individual development of a multimedia educational English language resource on the base of authentic audio and video materials in the ISpringSuit program.

The program included theoretical and practical blocks, the first of which included information on types of multimedia resources in education, methodological, didactic and ergonomic foundations of their design and use, the specifics of working with authentic audio and video foreign language materials. The second block was aimed at mastering the ISpringSuit program and teaching the technology of developing multimedia educational resources in the mentioned authoring tool software.

One of the important parts this stage of experiment is the demonstration of a demo versions (examples) of multimedia application the students are required to develop in independently after acquiring necessary knowledge and skills. The choice of the type of a multimedia educational resource that the student will create should be determined not only by his personal interests, but also by definite "gaps" identified as a result of the analysis of the training program, textbook, teaching aids. So, the choice of developing a multimedia educational resource aimed, for example, at studying new lexical material may be conditioned by the lack of a sufficient visualization of displaying the semantics of new lexical units in the textbook or an insufficient number of exercises aimed at practicing correct sounding of new words, etc. In this regard, at the lessons students independently study, analyze existing approaches to the presentation of a particular topic in teaching a foreign language, decide on the choice of the type of multimedia educational resource being developed, set its educational goals and objectives. At the stage of selecting content and audio and video materials for inclusion in the multimedia resource, the main form of organizing educational activities is a practical lesson. In a practical lesson, students search, select, process various types of information - the content of the multimedia educational application. To do this, they need to analyze various types of texts, audio and video information, etc., select this material for inclusion in the educational resource with the accordance of the requirements set to the teaching materials content. For a successful search for the necessary material students are encouraged to familiarize themselves with the capabilities of the search engines on the Internet, including Google, Yandex, Yahoo, Go, Rambler and define useful and trustful Internet sites presenting valid information, YouTube capabilities etc.

At the third stage of the experiment (controlling experiment) in order to assess the level of training achieved by students, two types of final control assessment were used: a test containing 15 questions and an individual educational project. Students independently developed their own multimedia educational applications (teaching aids, interactive presentations, teaching-methodical tutorials), taking into account the psychological, pedagogical, methodological and ergonomic - technological requirements for their development. The results of the control test are presented in Picture 2.

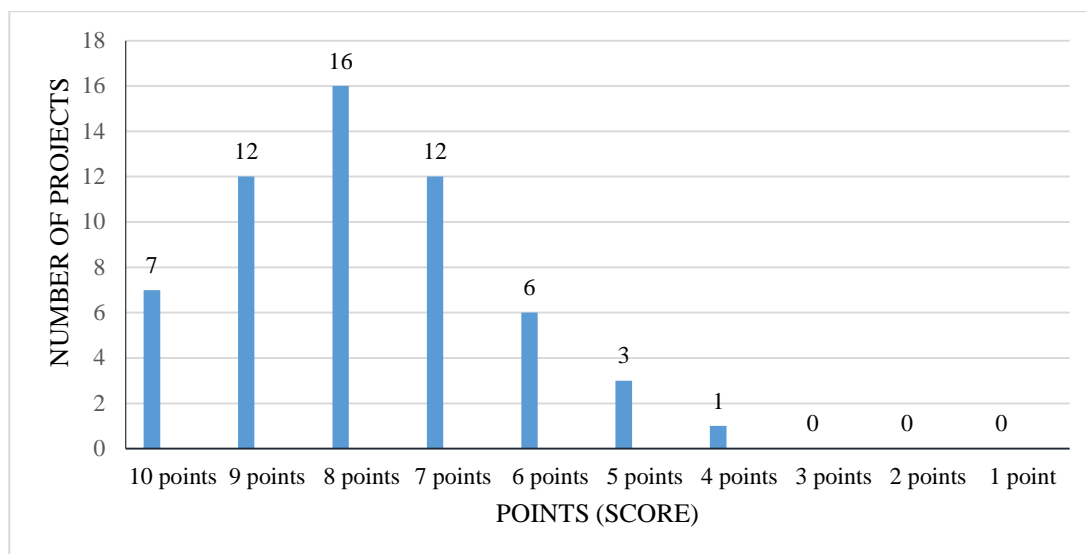
Picture 2. Percentage of correct answers in the final test questions



As the result of this work, the developed multimedia educational resources based on authentic audio and video materials were presented. Each multimedia resource was assessed on a 10-point scale according to the following parameters reflecting the requirements for their development: the presence of interactivity, the availability of different types of information, visualization of educational material, the inclusion of video and audio fragments and their consistency with the subject matter of the course and learners' level of training, the availability of mechanisms for archival storage, search and automatic input of information, automation of control and assessment of the material mastered, etc.

Assessing the students' level achieved in the result of the experimental training we based on four levels of mastering the material identified by V.P. Bepalko: learner's level (the simplest one, since the learner's activity is purely reproductive); algorithmic level (it also refers to the reproductive form of the learner's cognitive process, when he acts according to a previously learned algorithm, which he can reproduce from memory); heuristic level (which already refers to productive activity, when a student is able to apply previously acquired knowledge in a new, atypical situation, it is also called the search level, since the student searches for new solutions); creative level (it refers to the purely creative activity of the student, during which he receives new information, creates new knowledge). During the experiment held we intended to achieve the heuristic level of students' training which requires scoring 60% points in the final assessment. The average score got by all students for the answers in the theoretical block was 80%. At the same time, all students received more than 9 points (60% of correct answers) in the test, which indicates the formation of the necessary basic knowledge in the field of designing educational multimedia resources. As for the individual projects, 54 students out of 57 (93% of participants) got 6 points and more, which corresponds to 60% and more of the final assessment for an independently developed multimedia educational resource. The results of assessing independent multimedia educational projects developed by the students are presented in Picture 3.

Picture 3. Statistics of the points got by the students for individual projects (multimedia educational resources)



Students have developed such multimedia educational aids as “London Sigftseeing”, “Clothes and Fashion”, “Professions of the XXI Century”, “American and Kazakhstani holidays”, “The English and the weather”, “The climate of Great Britain” “The role of books in our life” “Save the Earth today: ecological problems and their solutions”, “Following the rules of a healthy life”, “British and Kazakh traditions”, multimedia tutorials based on cartoons in English (“Tangled”, “Zootopia”, “Monsters Inc.”, “The Incredibles”, “Smallfoot” etc.) and many others.

Thus, the number of people who received more than 60% of total points for the test and the individual educational project was, respectively, 57 and 54 students out of 57 in total, which suggests that as a result of Stage II of the experiment, most students reached the heuristic level of training in the development of multimedia educational English resources in the ISpringSuite program, which supposes their reproductive activity in the field of creating their own multimedia educational resources.

Conclusions

Thus, in the context of digitalization of modern education, as well as the rapid replacement of analog technologies with digital ones, the optimal means of organizing and broadcasting authentic audio and video materials for educational purposes can be presented by the special programs for creating multimedia educational resources, which allows to place authentic audio and / or video materials and exercises developed for them in a single product by means of multimedia technologies. With the help of the navigation system, listening to audio and watching video can be carried out with repetition and stops, which contributes to the possibility of choosing an individual pace of the task, and the system of hyperlinks involves the placement of reference materials on the topic and dictionaries.

Due to the help of software tools, it is possible to perform thematic selection of authentic audio and video episodes, technically adapt authentic audio and video recordings in the process of developing educational and methodological materials using constructive editing techniques and place them in the environment (program) for creating a multimedia educational resource. The iSpring Suite course authoring software, being an effective tool for creating multimedia, interactive content is designed for quick development of multimedia educational resources and does not require long time to train teachers to work in this program. iSpring Suite has a simple, aesthetic, intuitive interface that meets international standards and is suitable for creating most multimedia educational courses and manuals with the active inclusion of authentic audio and video materials. The advantage of this software is the ability to quickly, efficiently develop multimedia educational recourses without special training, widely use multimedia files, support the work format on mobile devices, place the developed courses and tutorials in various distance learning systems.

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iSpring Suite бағдарламасында түпнұсқалық аудио- және видео материалдары негізінде мультимедиялық оқу ресурстарын құру технологиясы

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Мақалада iSpring Suite қолдануға ыңғайлы бағдарламасының түпнұсқалық аудио және видео материалдары негізінде мультимедиялық ресурстарын құрастыруда мүмкіндіктері қарастырылған. Жүйелік талдау әдістерін, зерттеліп отырған мәселеге кешенді көзқарасты ескере отырып, мақалада мұғалімдердің мультимедиялық білім беру өнімдерін дербес әзірлеуге жеткіліксіз дайындығы, педагогикалық-психологиялық, дидактикалық және технологиялық талаптарды ескере отырып, осы ресурстарды жобалау технологиясы саласында олардың цифрлық біліктері мен дағдыларын дамыту қажеттілігі талқыланады. Авторлар мультимедиялық білім беру ресурсын жобалау барысында түпнұсқалық аудио және видео материалдармен жұмыс істеу ерекшеліктерін және осы бағдарламада мультимедиялық білім беру өнімдерін жасау технологиясы қарастырады. iSpring Suite бағдарламаның тиімділігі шынайы аудио және бейне материалдары негізінде студенттерді мультимедиялық білім беру өнімдерін жасауға дайындауға бағытталған педагогикалық экспериментпен расталады. Эксперимент нәтижесінде қорытынды бағалау кезінде студенттер 60% және одан да көп ұпай жинады, бұл қатысушылардың оқыту эвристикалық

деңгейіне жеткендігін көрсетеді, бұл білім беру мультимедиялық ресурстарын жобалау кезінде қажетті базалық білім мен дағдыларды қалыптастыруды көздейді. Авторлар студенттердің эвристикалық деңгейге қол жеткізгендігін көрсетеді, бұл олардың шет тілінде өзіндік мультимедиялық ресурстарын құру кезінде олардың өнімді белсенділігін білдіреді.

Түйін сөздер: мультимедиа, мультимедиялық оқу ресурсы, цифрлық дағдылар, авторлық программалық бағдарламасы.

Технология создания мультимедийных образовательных ресурсов на основе аутентичных аудио- и видеоматериалов в программе iSpring Suite

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В статье рассматриваются возможности программы iSpring Suite в качестве оптимального, не представляющего сложности в использовании программного продукта для эффективного включения аутентичных аудио- и видеоматериалов в учебный процесс в виде целостного обучающего мультимедийного ресурса. С учетом методов системного анализа, комплексного подхода к изучаемой проблеме в статье освещаются проблемы недостаточной подготовки педагогов к самостоятельной разработке мультимедийных образовательных продуктов, необходимости развития их цифровых навыков и компетенций в области технологии проектирования данных ресурсов с учетом педагогико-психологических, дидактических и технологических требований. Авторами описываются особенности работы с аутентичными аудио- и видеоматериалами в процессе проектирования мультимедийного учебного ресурса и технология разработки мультимедийных образовательных продуктов в данной программе. Эффективность iSpring Suite подтверждена педагогическим экспериментом, направленным на подготовку студентов к разработке мультимедийных образовательных продуктов на основе аутентичных аудио- и видео материалов в указанной программе. В результате эксперимента при итоговом оценивании студенты набрали 60% и более баллов, что свидетельствует о достижении участниками эвристического уровня подготовки, предполагающего формирование необходимых базовых знаний и навыков в области проектирования образовательных мультимедийных ресурсов. Авторы указывают достижение студентами эвристического уровня обученности, который предполагает их продуктивную деятельность при создании собственных мультимедийных ресурсов по иностранному языку.

Ключевые слова: мультимедиа, мультимедийный образовательный ресурс, цифровые навыки, авторское программное обеспечение.

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