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TEACHING STUDENTS VERBAL COMMUNICATION ON THE BASES OF SYNCHRONOUS VIDEO-INTERNET-TECHNOLOGIES

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Abstract. This paper addresses the issue of the development of communication skills via means of synchronous video-internet-communication. The authors discuss the following issues: a) definitions of the term “synchronous video-internet-communication”; b) didactic features and methodological functions of synchronous video-internet-communication technologies; c) develop teaching algorithm of teaching students using synchronous video-internet-communication technologies; d) describe preparation and results of the experimental study.

Keywords: informatization of education; foreign language education informatization; synchronous video-internet-communication technologies; communication skills.

Introduction and definition of the concepts

Informatization of education, including language education, has now become one of the priorities of foreign language teaching [1, 2]. Didactic properties and methodological features of modern information and communication technologies (ICT) allow to greatly enrich the teaching process of learning a foreign language on the basis of one or another Internet-based technology [3, 4]. **Video-internet-communication technology** is one of such technologies. In this paper, this term defines *tools that provides the ability to communicate in real-time web-based programs that provide video and audio connection*. These technologies acquire some particular relevance in the light of the implementation of distance learning models for the most popular non-linguistic areas of training (“Law” and “Economics”) by the majority of Russian universities. Interaction between teachers and students, located at an indefinite distance from each other, is facilitates on the basis of video-internet-communication technologies. Foreign language is one of the subjects of the curriculum that can also be taught remotely on the basis of special software.

At the moment, there is a fairly large variety of software that allows you to organize video-internet-communication. The most common are the following programs: “Skype”, “GoogleTalk”, “Raketu”, “Yahoo!”, “Trillian”, “iChat”, “aMSN”, “ooVoo”, “Mail.Ru Agent”. Moreover, the educational process is intensely introduced with learning management systems (Learning Management System, LMS), such as “BigBlueButton”, “Adobe

Connect”, Survey “Comdi” etc., which serve as a base for organizing video-internet-communication between the participants of the educational process; allow teachers and students to post their materials, as well as to participate in the network discussion in web-forum or blog. Of course, each of these programs has its own advantages and disadvantages. The latter include: a) many of the programs lack of the Russian version; b) the ability to expand the video to full screen is only in the paid version of the program; c) a program is designed for a limited number of members, etc. Not for a while yet the video-internet-communication technologies are elective, they may be chosen on the following criteria:

- Free version of the software;
- Stable and high-quality video and audio connection;
- Opportunity to participate in a video conference for over 10 participants or groups of participants (with individual connection);
- Availability of a chat, a forum or a blog for network discussions;
- Ability to record video conversation;
- Possibility of transferring data (text, video, audio).

One of the popular and public Internet technologies, comporting with criteria, is a service of video-internet-communication technology “ooVoo”. “ooVoo” is a public softwear (as well as the client program of the same name) for video conferencing and instant messaging on the Internet. When you install the program it tries to automatically detect the camcorder and bandwidth of the Internet connection, thus eliminating in many cases the need for manual input. The program allows to make calls to people regardless of whether the software is installed on their computers (the user receives a link, clicking on which he can join the conversation via his web browser (the conversation will occur through the ActiveX-Plugin)). To use all the “ooVoo” software functions you need: a) the program (installed on your computer, which you can download on the official website of the distributor <http://www.oovoo.com/>), b) a webcam in) headphones / speakers and a microphone.

Didactic properties and methodological functions of the synchronous video-internet-communication technologies

Synchronous video-internet-communication technologies have a number of properties of didactic and methodical features that are to be considered when learning a foreign language based on these technologies. P.V. Sysoyev considers *didactic properties as main characteristics and features that distinguish one information technologies from the others. Methodical functions are the external manifestations of these technologies* [3, 4].

Didactic properties of the synchronous video-internet-communication technology “ooVoo” are as follows: a) the ability to organize a video or audio communication between two or more users in real time; b) the ability

to post video and audio messages online and offline; the ability to record video or audio conversations, which subsequently can be sent to other users; c) the ability to post messages to chat in real time (up to 6 people at a time) and offline; d) the ability to broadcast the work from the desktop. In detail didactic properties and methodical functions of the synchronous video-internet-communication technology “ooVoo” are presented in Table 1 [5].

Table 1

Didactic properties and methodical functions of “ooVoo” service

“ooVoo” Didactic properties of the “ooVoo” service	Methodical functions of the “ooVoo” service developing speech abilities of students
The ability to organize a video or audio communication between two or more users in real time	Using the service, students can communicate with each other, developing listening, dialogic and monologue (if one person makes a presentation or a report, while the others perform as audience) skills. The thematic content of dialogues and monologues is defined by the thematic content of educational programs in foreign languages for students of non-linguistic training programmes. The length and format of the communication is indicated by the teacher
The ability to post video and audio messages online and offline	Every student creates a video or an audio record on the “ooVoo” server and sends it to the other (s) student (s). After watching a record of a particular student other students can post their comments in the chat, record and send a video or an audio response, or organize an online panel discussion about the record they have watched. Thus, while preparing audio or video record and discussing it further, students can develop all kinds of communication skills. Depending on the task, after watching or listening to a message, in the comments students can 1) express their opinion on the matter under discussion; 2) express agreement or disagreement with the opinion of the author; 3) highlight the positive and negative moments of the content and presentation of the message; 4) focus on the language of the message (linguistic correctness of the active vocabulary, etc.). Teacher defines an algorithm of structure of the discussion
The ability to record video or audio conversations, which can be sent to other users later	This feature is different from the previous one only by the fact that in the record (video or audio), that the other students will watch or listen there will be presented not monologue, but dialogue speech
The ability to post messages to chat in real time (up to 6 people at a time) and offline	Depending on the task with the help of this feature, students can develop the specific skills of reading and writing. Students can use chat for discussing the material they watched or heard (developing thereby also listening skills), or when discussing a predetermined subject, or after reading a text
the ability to broadcast the work from the desktop	Students can broadcast the work they do (the writing work), or to share information (images, text, audio, videos, etc.), which they are interested in, that may subsequently become the topic for discussion.

Nomenclature of the students' communication skills developed on the basis of the "ooVoo" service

The mentioned didactic properties and the correspondent methodological functions of the synchronous video-internet-communication technology "ooVoo" allow the students to develop a wide range of communication skills (Table 2) [6].

Table 2
Nomenclature of the students' communication skills developed on the basis
of the video-internet-communication technology "ooVoo"

Listening	Speaking
1) understanding the general idea of the audio-text: - to understand the purpose of communication / audio-text; - to understand the subject of audio-text; - to determine the participants of the communication / the speaker; - to understand the main ideas of the audio-text; 2) selective understanding of the audio-text: - to separate the important information from a minor one; - to extract the necessary information from the audio-text; - to highlight facts and arguments according to the issues; 3) complete understanding of the audio-text: - to define the logic of the argument or the argumentation (sequence of facts / events); - to understand the relationship between facts, causes, events, and etc .; - to be able to analyze the contents of the audio-text; - to determine the attitude of the speaker to the subject in matter; - to predict the course of events; - to express one's opinion about the information they have heard	1) the reproduction of general information: - to reproduce the goal of the communication; - to reproduce the subject of the message; - to describe the main participants of the message; - to present the main content of what one heard / seen; 2) the reproduction of specific information: - to reproduce the requested / selective information; - to reproduce the main facts and arguments according to the issues; 3) detailed reproduction of the information: - to characterize the characters of fiction, theater, cinema, and so on; - to express and explain one's point of view on the subject under discussion; - to draw conclusions; - to assess the information received
Reading	Writing
- Allocate the necessary facts / information; - Separate the basic information from the secondary; - Predict the development / result statement of the facts / events; - Summarize the facts described / events; - To assess the importance / originality / authenticity of the information	- Describe events / facts / events; - Communicate information; - To express their own opinion / judgment; - To express and explain their point of view; - Fix the necessary information from the read / listened / seen; - Make clarifications / additions; - Summarize information from different sources; - To draw conclusions

Algorithm of students' communication skills development on the basis of "ooVoo" service

Depending on the interests and needs, as well as on the level of students' foreign language communicative competence formation different methods of teaching a foreign language on the basis of synchronous video-internet-communication technologies can be developed [7, 8]. In this paper we propose a learning algorithm, which consists of three phases and 11 steps (Table 3).

Table 3

Algorithm of students' communication skills development on the basis of video-internet-communication technologies

Stage I. PREPARATORY	
Step 1: Introduction of students with the purpose and objectives of the work. The teacher explains to students the purpose and objectives of the work on the basis of synchronous video-internet-communication technologies and of the projects making based on them, which are aimed at developing students' communication skills; indicates the expected outcome; introduces to the algorithm of actions; lists criteria for evaluating students' achievements and participation in training and project activities; divides the students into groups of 6-12 people	
Teacher's actions	Students' actions
divides students into groups	-
explains the purpose and objectives of the work in the "class" (based on the "ooVoo" platform)	ask organizational questions
explains what is the work of each group	ask organizational questions
explains the expected final version	-
gives instructions on what algorithm to use	ask organizational questions
lists the criteria for evaluating students' achievements and participation in training and project activities	ask organizational questions
Step 2: Getting to know the rules of carrying out a lesson; recording / uploading discussions (monologue) / discussion on the watched materials. Teacher tells students the server address of the selected synchronous video-internet-communication technology, so that the students could download and install the software for the selected program on their computers; introduces to the installation and registering instructions of the program; explains the rules of the online tutoring sessions, posting text, photos, and media in a chat, the demonstration of the material from the desktop; explains the rules of recording projects (dialogues and monologues in video or audio format), uploading them to the chat (as a file) / spreading it among the members of the group; explains the rules of discussion (oral / written) on the watched / listened material	
Teacher's actions	Students' Actions
introduces a group of students to a list of the themes developed	make their suggestions on the additional topics in the curriculum, they would like to discuss
introduces students to the performance estimation criteria	-
tells students the server address of the selected synchronous video-internet-communication technology	get the server address of the selected synchronous video-internet-communication technology

introduces students to the installation and registration manual	-
explains the rules of the online tutoring sessions, posting text, photos, and media in a chat, demonstrating the material from the desktop	-
explains the rules for recording projects (dialogues and monologues in video or audio format), uploading them to the chat (as a file) / spreading it among the members of the group	-
explains the rules of the discussion (oral / written) on the watched / listened material	-
Step 3. Demonstrative activity. The teacher, using the synchronous video-internet-communication technology, demonstrates to the students at practice all the actions that students will have to perform during training: download and install the program; registers in it; demonstrate the way conducting an online class; upload a text, photos, and audio-visual information to a chat; show some material from his desktop; record a project (dialogue / monologue in video and audio format), upload it to the chat (as a file) / spread it among the members of the group; demonstrate how to conduct discussions (verbal / written) on the watched / listened material	
Teacher's actions	Students' actions
the teacher organizes a demonstration lesson, showing how to use the synchronous video-internet-communication technology, demonstrates to the students at practice all the actions that students will have to perform during training: download and install the program; registers in it; demonstrate the way conducting an online class; upload a text, photos, and audio-visual information to a chat; show some material from his desktop; record a project (dialogue / monologue in video and audio format), upload it to the chat (as a file) / spread it among the members of the group; demonstrate how to conduct discussions (verbal / written) on the watched / listened material.	repeat the teacher's actions in groups
Step 4. Discussion of the issues of information security. The teacher introduces students to the rules of compliance with information security while working with the synchronous video-internet-communication technologies [9]	
Teacher's actions	Students' actions
explains to students the rules of information security while working with the synchronous video-internet-communication technologies	listen to the teacher's instructions
Stage II. PROCEDURAL	
Communication skills development of students of non-linguistic institute on the basis synchronous video-internet-communication technology will be divided into "classroom" (regular classes) and "project" (the projects will be carried out according to the planned course of "classroom classes").	
A. Step by step scenario of "classroom" sessions, whose goal is to develop communication skills of students of non-linguistic institute on the basis of synchronous video-internet-communication technology	
Step 5A. Selection of material on the subject. On the basis of a platform "Moodle" students receive the material for lessons. Each trainee has a personal access to the content of the platform, which they have to work out and prepare for the "classroom" sessions	

Teacher's actions	Students' actions
-	work on the material for the lesson
-	seek additional material using different search engines, for example, Rambler, Google, Yahoo!, Alta Vista
Step 6A. Carrying out "classroom" sessions. At the "classroom" lesson the teacher explains the material of the lesson to the students, training communication skills	
Teacher's actions	Students' actions
explains the material (lexical and grammatical)	participate in the analysis of the material
Step 7A. Discussion on covered material. Students discuss the material of the lesson, work out dialogic and monologic speech in a group with the teacher	
Teacher's actions	Students' actions
monitors and directs the students' activities	discuss the material of the lesson, work out dialogic and monologic speech in a group with the teacher
Step 8A. Independent activity in the lesson. Students on their own (without a teacher) prepare mini-performances on the topic of the lesson; prepare dialogues in groups of 2 people	
Teacher's actions	Students' actions
-	work on the covered material, prepare monologues and dialogues
B. Step by step scenario of conducting the students' project activity, the purpose of which is the development of communication skills of students of non-linguistic institute on the basis of synchronous video-internet-communication technology	
Step 5B. Selecting a theme and looking for material. During the month, at "classroom" lessons thematic material is reviewed, after a cluster <i>students perform projects on one of the covered topics</i> (they are to make and write a dialogue and a monologue, and also to provide a written project in the form of drawing up a legal document (letter, statement, agreement etc.) and a group discussion	
Teacher's actions	Students' actions
-	choose a theme for the project
-	discuss their ideas on the content of projects
provide assistance to students when working with search engines if necessary	analyze the covered material, look for additional information using various search engines, for example, Rambler, Google, Yahoo!, Alta Vista, if necessary
-	work on the material
providing assistance in adjusting material if necessary	adjust the material
Step 6B. Preparation and implementation of the project. At this stage, students of all the groups make and record dialogues (for 2 people) and monologues, write the project. Further, the content is sent to the group discussions (6-12), by uploading the material directly during the debate, or to an account (contact) of each member of the group, or using the "demonstration of the desktop"	
Teacher's actions	Students' actions
-	prepare the material and record the project (dialogue / monologue) and make a project in *.doc or *.docx format
monitors uploading / distribution of projects	upload / distribute their material in the "ooVoo" environment
Step 7B. Discussion on the given material in a text chat (video chat). At this stage, students in groups discuss the watched / heard / read material. Students express agreement / disagree-	

ment regarding the position of the author, give their opinion on the material provided, and the method of its presentation, make recommendations on the aspects of the topics that can be covered in a different way, respond to each other's comments. The discussion takes place in the audio-visual format and the text chat	
Teacher's actions	Students' actions
monitors the conduct of the general debate	discuss the projects of other members of the group
Step 8B. The response of the author (s) of the recording to the discussions (both written and oral). After discussion, every author responds to comments on the project and explain his position	
Teacher's actions	Students' actions
monitors the process of discussion	give response to the debate and explain their positions
Phase III. FINAL	
A. The final stage of "classroom" lessons	
Step 9A. Presentation of individual work in class. At the lesson students present their mini-monologues and dialogues in the "audience"	
Step 10A. Teacher's evaluation of students' work. The teacher evaluates the students' work	
Step 11A. Reflection. Students make notes on the covered material, on the errors and mind the teacher's comments to take them into account in project activities	
B. The final stage of the project activities	
Step 9B. Presentation of Internet project in the "classroom". After a discussion in small groups students present the project the whole groups	
Step 10B. Teacher's evaluation of student participation. The teacher evaluates the students' work	
Step 11B. Reflection. Students evaluate their participation in the project activities, analyze what they have been able to achieve and what could not be achieved in a particular Internet project, that needs to be done to overcome the setbacks in the future	

Experiment

In order to determine the effectiveness of the proposed method of the students' communication skills development on the basis of the video-internet-communication technologies a teaching experiment was conducted. It was carried out during one cycle of one academic year long - from September 2013 through May 2014 at the Institute of Open Education and Innovative Entrepreneurship of Derzhavin Tambov State University. Participants of the experiment were 150 first year students majoring on Law. The students' level of English was equal to B1-B2 on the European scale of levels (Common European Framework).

Experiment was conducted according to the algorithm of the students' communication skills developed on the basis of the video-internet-communication technology "ooVoo". Students in the control group (75 people) were trained internally in the Institute of Law of Derzhavin Tambov State University and the students of the experimental group (75 people) were trained remotely via the "ooVoo" service. The professor was in the teaching studio on the university basis in Tambov, and students came to the classroom

training classes of the University in their hometowns: Rasskazovo, Inzhavino, Kotovsk, Morshansk.

Training materials and assignments for students of both groups were given at “MOODLE” platform of Derzhavin Tambov State University (Picture 1).

The screenshot shows the Moodle LMS interface for Tambov State University. The header features the university's name in Russian and English, and the title 'Система Дистанционного Обучения' (Distance Learning System). Below the header, there are social media icons and a user profile section for 'Дмитрий Александрович Беликов (Выход)'. The main navigation menu on the left includes 'Моя домашняя страница', 'Страницы сайта', 'Мой профиль', and 'Мои курсы'. The current course is 'Иностранный язык в сфере юриспруденции (англ.)'. The main content area displays a list of topics under 'Заголовки тем', with 'Модуль 1' selected. The content for 'Модуль 1' includes a presentation task about the Queen of the UK, a reading task about the legal system, and a grammar rule section. The right sidebar contains a search box, a 'Бизнес партнеры' section, and a 'Последние новости' section.

Picture 1. “Moodle” platform of Derzhavin Tambov State University

According to the curriculum, students had 4 classes per month (in the fall semester: Auditoria Classes - 108 hours, self-study - 72 hours; spring semester: Auditoria Classes - 86 hours, self-study - 108 hours).

To evaluate the development of communication skills of the students in the control and the experimental groups two exam tests were given before and after the treatment. The test involved tasks on monitoring of the development of students’ communication skills (four types of speech activities) using the “Moodle” platform and the video-internet-communication technology “ooVoo”. The results of the experiment were decoded for statistical processing, which was carried out using the “Minitab” program. The results of test before and after the experiment were coded into 4-point scale: “1”, “0.75”, “0.5” or “0”. To evaluate the meaningfulness of the results *t*-test procedure was applied.

Table 4 shows value for T-test for differences between experimental and control groups before the treatment.

Table 4

P-value for T-test for differences between experimental and control groups before the treatment

Group	Number of students	<i>t</i>	p-value
The control group	75	3.48	≤0.05
The experimental group	75	3.32	≤0.05

The statistical analysis of the t-test shows that in the control group ($t = 3.48$), and the experimental group ($t = 3.32$) before the experimental training students already had some communication skills developed. Table 5 shows the results of the data analysis of the language test in the control and experimental groups after the treatment.

Table 5

P-value for T-test for differences between experimental and control groups after the treatment

Group	Number of students	<i>t</i>	p-value
The control group	75	5.72	≤0.05
The experimental group	75	5.68	≤0.05

The results of the test after the treatment show that in the control ($T = 5.72$) at $p \leq 0.05$, and experimental ($t = 5.78$) at $p \leq 0.05$ groups the level of students' communication skills has increased significantly.

For testing the effectiveness of the proposed method statistical analysis of the results of the final test between control and experimental groups is particularly important (Table 6).

Table 6

Results of the data analysis of the language test in the control and experimental groups after the treatment

Group	Number of students	<i>t</i>	p-value
CG vs EG	150	1.74	> 0.05

The data in Table 6 show no statistical difference between the results of language test in control and experimental groups ($p > 0.05$), which proves that the development of communication skills based on the video-internet-communication technologies is a feasible goal. Also, taking into consideration the minor differences in the results of the final test in the control and experimental groups, we can say that the synchronous video-internet-communication technologies can be used to develop communication skills of students as an analog to the classroom lessons.

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