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TEACHING EFFECTIVE INTERPRETERS' COMMUNICATION SKILLS IN MULTIMEDIA CLASSROOMS

The development of new approaches to introducing communication exercises and activities imitating real life situations remains an urgent task for ESL teachers. This study examines the development of university students' professionally significant communication skills during their classes of English taught in multimedia-based classrooms. The research conducted in groups of undergraduate students, who major in translation and interpreting, identified a set of the most valuable communication skills which require special attention of the novice interpreters.

The necessity to focus on the development of these particular skills determined the methodology of teaching and the sequence of a year-long research, which 1) identified seven professionally significant communication skills that influence the efficiency of interpreters' communication in working environment; 2) proved the advantages of teaching these skills to undergraduate students mainly in multimedia-based classrooms; 3) developed a convenient way to measure and assess the students' individual progress in development of the seven professionally significant skills of communication, and 4) revealed ways to improve the technology of teaching by developing a set of exercises to be practiced in multimedia-based classrooms in order to imitate situations of working communication and interpreting.

Introduction of the exercises in the teaching process has demonstrated appreciable improvement in students' communication performances. Methodological recommendations for the teachers, who will be introducing the set of exercises in multimedia classrooms, were developed to ensure maximum efficiency of its applications.

Key words: *multimedia-based classroom, interpreters' communication skills, professionally significant skills, effective communication skills, imitation exercises.*

The study problem and aims. In the first years of the new millennium, teaching the art of effective communication to university students with the purpose of preparing them for pursuing professional careers has become an object of scholars' attention globally, especially with a view to the changing shape of the task in connection with the advent of new communication technologies that alter the whole rhythm and style of our lives. On leaving their Alma Mater, young and inexperienced university graduates face the necessity to adapt to the new working environment, and the better they are acquainted with the newest trends of the global work force market, the more chances they have to give a successful start to their careers. This is why development of new technologies, which would allow teachers to introduce communication exercises and activities imitating situations of working communication to

undergraduate students, remains an urgent task for the relevant departments in every higher educational establishment. Introducing such technologies in multimedia-based classrooms, especially to the students, specializing in translation and interpreting, has apparent advantages and thus, the task of continuous revision and improvement of teaching methods attracts attention of language teachers internationally.

During the few most recent years, the demand for training highly skilled specialists, capable to withstand competition at international work force market has been growing exponentially. The boosting development of technologies, as well as general acceleration of all global processes, has caused an urgent need to create favorable conditions for fast and efficient teaching of the English language, which is now officially recognized as the language of global communication, at the highest professional level. On

their first working day, all university graduates need to be completely prepared to face the English-speaking working environment and successfully perform their professional duties. Therefore, during all years of undergraduate study, every student needs to have access to continuous training, aimed at imitation of professional situations of working communication.

Currently, the recent graduates of Ukrainian universities, including those, who specialize in translation and interpreting, experience a great deal of uncertainty and lack of working communication skills at the very start of their careers [2]. This fact should be regarded as a call for action by the departments of translation and interpreting: new approaches to teaching are needed, which could help overcome the insufficiency of linguistic knowledge, and at the same time, create a platform for continuous development of particular communication skills, which will be of critical need to the young specialists upon graduation, on their working places.

The research represented by this article aims to outline the results of observations and study held in the field of developing particular professionally significant communication skills among undergraduate students, who major in translation and interpreting. The research intended to provide sufficient basis for building a technology of teaching these communication skills to undergraduate students in multimedia-based classrooms.

Latest research analysis. The problem is being actively discussed globally these days: the publications of internationally acclaimed authors, such as Lou [12], Tarnopolskyi [2], Vyshnevskyi [1], suggesting ideas of creating language teaching technologies, aiming at simultaneous development of learners' communication ability, are a sound confirmation to this. Although the task of teaching effective communication to the future interpreters has already taken its niche in scientific research, it requires systematic attention of practicing teachers in connection with the fast-pacing changes of the professional environment. Pedagogical science and psychology are tasked to work together and create effective educational systems, which are capable to cope with the introduction into our lives of new technologies, multimedia, and new tools of communication. Otherwise, no university graduates would be able to confidently face their employers and immerse into the working process of their teams without additional training on the working places.

The task of adapting to ever-changing professional and technological environment is universal. According to the U.S. National Center for Education

Statistics, the students' access to technology is no longer a privilege: it has become a prerequisite for full participation in high-quality education opportunities [14]. Thus, many scholars agree that providing high quality professional education to students is impossible without systematic use of technology right in the classroom, especially with a view to preparing them for the future professional activity [11]. In the particular case of training professional interpreters the focus of teachers' attention should be made on using various multimedia technologies while practicing communication in the foreign language. Taking into account the value of effective communication skills in the working process of every professional team, and being aware of the time-consuming nature of their formation, Badan and Beck [5, p.382] stress on the importance of sustained and continuous development of the students' effective communication skills during all period of their undergraduate study.

To develop a well-functioning teaching technology for training skills of effective communication, solid understanding of communication psychology is required. Special accent should be made on studying the effect of all-group communication activities on the development of particular skills of each individual student. We share the standpoint of Brown and Campione [8] who believe that in a learning community, students collaborate to advance their collective knowledge on a topic in a way that helps each student learn.

In this connection, it is important to mention the research conducted by Ford and Wolvin [9], who studied the differential impact of a basic communication course on perceived communication competencies in class, work, and social contexts. The authors examined the impact of the basic public speaking course on students' perception of their communication competence in the classroom, at work, and in social settings. The authors noticed the most significant improvements in communication competence in four specific areas: feeling confident about oneself, feeling comfortable with others' perceptions of you, reasoning with people, and using language appropriately.

Another study, conducted by McPherson [13], intended to evaluate student perceptions about business communication in their careers. While communication skills are commonly recognized as vital to success in business, students still often underestimate how essential some of these skills may be to their careers. The study revealed, in particular, that business students often underestimate the importance of international communication skills, as well as the neces-

sity to interact with other employees, the importance of oral presentations, and the ability to use multimedia technology. The author comes to the conclusion that a more realistic awareness of the importance of these skills might motivate students to prepare more carefully for their communication lives in the workplace.

Methods. This study was grounded on the hypothesis that introducing certain sets of communication exercises and activities in multimedia-based classrooms can provide the basis for the most time-efficient, consistent, and effectual development of particular communication skills, which are professionally significant for the future interpreters.

The first steps toward creation of the new technology were made in 2016, during observations of the impact made by the regular use of multimedia on the students' individual speaking performances. The observations were organized at the department of Business English and Translation of the National Technical University "Kharkiv Polytechnic Institute" (NTU "KhPI"). The observations, conducted among undergraduate students of the first, second and third years of study, who specialize in translation and interpreting, were made weekly, during the whole academic year. The study involved four teachers working with four experimental groups (EG) of undergraduate students (the total of 64 students) in multimedia classrooms and four teachers working with four control groups (CG) (the total of 59 students) in traditional classrooms. The sets of experiments and observations carried out in 2016, helped identify a number of factors, which influence the quality of the students' speaking performances during classroom discussions. By the end of the academic year, significant improvements in individual speaking performances were recorded among EG students, who continuously participated in various communication activities, involving extensive use of all available multimedia devices [6].

Discussion. *Finding rational balance between multimedia-based and traditional classroom study.* The research of the 2016 was focusing mainly on finding the most favorable balance between traditional and multimedia-based learning. It demonstrated, inter alia, a noticeable improvement in general motivation for learning among the groups of multimedia classroom students over those who were offered the same learning materials in traditional classrooms. Also, significant progress among EG participants was recorded in the development of the following parameters of communication:

- motivation for achieving the goal of communication;

- ability to concentrate on the subject of speaking;

- memorizing ability; and

- general speaking performance.

The fact of improvement in the EG students' general speaking performances allowed the authors to come up with a hypothesis that introduction into the teaching process of a technology, directed at practicing of certain exercises and activities, which imitate various communication situations in multimedia classrooms would help develop the students' individual skills of effective communication. For such technology to be most effective in university classrooms, it was necessary to identify particular skills of communication, which are the most significant for successful work of interpreters. This task encouraged the authors to continue the study of the students' individual speaking performances in 2017.

Identifying professionally significant communication skills for interpreters. To develop a technology in support of teaching effective communication to students in multimedia-based classrooms, a series of observations was organized to identify, which components of communication process are the most professionally valuable for the novice interpreters. Grounding on the analysis of relevant scientific literature, the authors observed, tested and analyzed individual communication performances of undergraduate students of both, experimental and control groups, in real office environment during their summer training term, where every participant took part in real process of professional interpreting. The study involved collecting statistics on EG and CG participants' on daily basis during three weeks; at this step, the participants were offered to make self-assessments of their own communication activity by 20 parameters, characterizing communication process. The experiment also involved testing of the participants' individual communication performances in the beginning and in the end of the experiment. It helped identify the following components of communication process, which become particularly important in professional communication of beginner interpreters:

- 1) setting clear purpose for communication process;

- 2) structuring the Message for the Receiver (ability to say what others need to hear);

- 3) focusing on relevant information, data or contexts (ability to avoid irrelevant details);

- 4) flexibility: reading partners' reactions and adjusting individual communication behavior;

- 5) ability to lead conversation (focusing on anticipated result, leading the conversation to achieving it);

6) ability to listen; and

7) ability to give effective feedback (constructive, positive, clear, concise).

These seven factors were further regarded as the basic skills, which must always remain in the focus of the teaching technology.

Finding most efficient methods of teaching communication skills in multimedia classrooms. It is important to note that all of our previous studies involved continuous monitoring of the participants' individual learning processes by using scientific methodology of dynamic systems modeling, which suggests a way to build detailed models of communication processes, form prognostic scenarios of their development, and study reactions of the models to any external and internal influences; the detailed description of the methodology was provided in our previous works [6, 7]. All data, collected during all stages of research, were continuously entered into computerized model of communication skills monitoring and helped the authors analyse large amounts of data, characterizing the students' individual performances in each of the seven communication parameters. Application of this methodology involved a few consecutive steps of developing general informational technology for modeling of individual processes of the students' communication skills development:

1) putting together and processing expert information about the process into a research database;

2) building informational technology of the research. At this step, the process of communication was regarded as a system, containing multiple linguistic and extralinguistic components;

3) creating models for simulation of communication skills development processes;

4) adaptation of the models: grounding on results of observations, data assimilation operations were implemented and new prognostic scenarios of communication skills development were obtained. Repeated simulation experiments were followed by model adaptation operations and resulted in new development scenarios;

5) summing up the results of the research and building conclusions regarding application of scientific methodology of dynamic modeling to monitoring of students' communication skills development process.

Application of the computerized dynamic modeling helped the authors to resolve the task of applying mathematical measuring tools such parameters as communication skills; this opened opportunity for performance of the following actions:

1) comparing characteristic parameters of undergraduate students' classroom communication with those of professional interpreters' communicating in real working environment;

2) study of the factors, influencing the development of seven professionally significant communication skills, which characterize the work of professional interpreters;

3) evaluation of the students' individual communication abilities; and

4) putting together the structure of the teaching technology, which included organizing learning material into sets of communication exercises and activities to be practiced in multimedia-based classrooms in order to imitate working situations of communication and interpreting.

Developing the structure of the teaching technology. Having identified the seven basic components of the communication process and applied methodology of systems modeling to obtain mathematically correct evaluations of development of the students' individual communication skills, the authors proceeded to the next step of the research: building the structure of new technology of teaching communication to the future interpreters. By this time the results of previous research had proven the expediency of applying the technology mainly in multimedia classrooms. The task of building the structure of the technology required the following sequence of steps to be made:

1) computer processing of all available data;

2) applying expert knowledge of educational technologies and psycho-linguistics to development of sets of communication games and exercises to be practiced in multimedia classrooms;

3) introducing these communication games and exercises in teaching practice among students of both, experimental and control groups during a month of study;

4) performing continuous monitoring of the development of seven communication skills;

5) conducting a test and a questionnaire to verify the efficiency of development of the skills.

6) introducing changes into the proposed sets of communication games and exercises based on the analysis of the acquired results.

Results. The complex multitask structure of the research determined the sequence of steps (described above), which were taken in order to achieve the goal of development of the new teaching technology in support of more effective development of undergraduate students' communication skills in multimedia-based classrooms.

It is necessary to mention that the complexity of the research was determined by the need to provide mathematically correct evaluations of development processes of the students' individual communication skills—the task, which became feasible only recently, with the development of sophisticated, computer-supported methods of information monitoring, which allow mathematical measuring and modeling of complex dynamic processes, developing in time. Due to application of system dynamics approach, the authors were capable to monitor numerous parameters of communication in the dynamics of their development. Applications of system dynamics methodology to the research, related to social sciences, are still regarded as a new, revolutionary novelty, but this approach has already demonstrated equally revolutionary results [10]. The authors of the study share an opinion that applying this methodology to development of new educational technologies will soon become a common practice.

At each step of the study, the results of experiments were processed in accordance with requirements of fundamental conception of system dynamics methodology. All data obtained from observations, tests, and questionnaires were entered into the computer program, which processed the data as a system of interrelated dynamic elements. Schematic representation of a general cycle in the dynamic system is shown in Fig. 1.

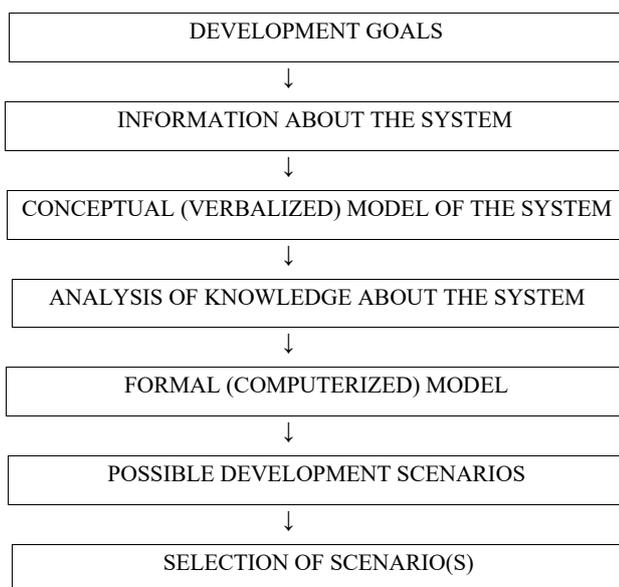


Fig. 1. General cycle of a dynamic model of a system

Representation of all obtained data as the elements of a complex dynamic system helped

the authors to build a complex informational technology of management of students' communication skills, and then, using a computer program of data monitoring, to transform the information into a model and carry out monitoring of the students' communication skills development as a whole system during the whole academic year, keeping track of the complex relations between the system's numerous elements.

The first stage of the study, which was directed at finding rational balance between multimedia-based and traditional classroom study, demonstrated notable advantages of teaching communication skills in multimedia classrooms in comparison with teaching in traditional classrooms; the students of experimental groups (multimedia classroom study) demonstrated general increase in communication performances by the following parameters versus the same results in the control groups (traditional classroom study): 12% growth in motivation for achieving the goal of communication; 11% growth in ability to concentrate on the subject of speaking; 6% growth in memorizing ability; and 14% improvement in general speaking performances.

The second step of the study – the task of identifying a set of communication skills, which are professionally significant for every interpreter, especially at the beginning of their careers – brought the results, which could not be obtained by traditional observations. Due to following fundamental conception of systems management and applying both, expert knowledge of teaching communication to undergraduate students and the system dynamics methodology to the large amount of experimental data, the following seven parameters (skills) of communication process were identified: 1) setting clear purpose for communication process; 2) structuring the Message for the Receiver (ability to say what others need to hear); 3) focusing on relevant information, data or contexts (ability to avoid irrelevant details); 4) flexibility: reading partners' reactions and adjusting individual communication behavior; 5) ability to lead conversation (focusing on anticipated result; leading the conversation to achieving it); 6) ability to listen; 7) ability to give effective feedback (constructive, clear, concise).

According to the results obtained by the study, these seven skills, extensively used by interpreters in working communication, are the most valuable in professional activity, and thus, these skills should be developed in the first place when the new teaching technology is put into practice.

Table 1 shows the aggregated results of changes in participants' communication performances, taken in the end of academic year, either with or without use of multimedia in their classrooms study.

As we can see from the table, positive increase in communication ability is noticeable almost in all seven indicators for the students, who were offered a vast variety of communication training with extensive use of multimedia in classrooms.

The process of finding the most efficient methods of teaching communication skills in multimedia classrooms involved substantial work of expert assessment of the experimental data by the teachers, who were involved into the research. At this step of the study, the expert information provided by each teacher about the learning process of their groups was processed in the computer database; multiple linguistic and extra-linguistic characteristics of classroom communication process were analyzed; computerized modeling was performed and the following conclusions were made:

1) the teaching material of the new technology must provide the closest possible simulation of professional communication in real working environment;

2) special attention should be given to communication activities, involving students' representations of material, obtained from multimedia sources;

3) all communication exercises offered by the technology should ensure multiple repetitions of activities, centered around development of the seven professionally significant communication skills; and

4) maximum attention should be given to the development of communication games and exercises, which stimulate situations of individual responsibility for accomplishment of a task.

These, and a number of other valuable recommendations, were entered into the final report of the study, which outlined the methodological basis of the new technology.

The final stage of development of the structure for the new teaching technology involved the work of adapting the technology to the particular needs and capacity of the teaching process at the Department of Business English and Translation of NTU "KhPI". The work of developing new communication exercises, role plays and learning activities is continuing. Sets of methodological recommendations for teachers, who will be introducing the technology in classrooms, are being developed to ensure maximum efficiency of its applications.

Conclusion. This study was aimed at finding the most effective combinations of teaching methods, directed at development of certain professionally significant skills during the students' communication in multimedia classrooms. The hypothesis that development of particular communication skills in multimedia classroom can stimulate the development of the students' general communication ability and prepare them for effective communication in the working environment, was confirmed by multiple experiments and massive research work carried out within the framework of universal methodology of dynamic systems management, which allowed the authors to

Table 1

Development of professionally significant communication skills resulting from different styles of teaching (full academic year)

Communication skills, professionally significant for interpreters:	Multimedia Classroom (Experimental groups), aggregate score for the whole group of participants	Traditional Classroom (Control Groups), aggregate score for the whole group of participants
Setting clear purpose for communication process	+0.82	+0.65
Structuring the Message for the Receiver (ability to say what others need to hear)	+0.81	+0.61
Focusing on relevant information, data or contexts (ability to avoid irrelevant details)	+0.87	-0.13
Flexibility: reading partners' reactions and adjusting individual communication behavior	+0.72	+0.22
Ability to lead the conversation (focusing on anticipated result of communication and leading the conversation to achieving the result)	+0.45	+0.44
Ability to listen	+0.83	+0.18
Ability to give effective feedback (positive, constructive, clear, concise, etc.)	+0.49	+0.49

study all relevant information as a complex dynamic system. This new approach allows to unite existing research methodologies of social sciences with those of fundamental natural sciences. Applying systems methodology to the research made it possible for the authors to acquire reliable acknowledgment of the advantages of teaching communication skills to undergraduate students in multimedia-based classrooms; it also helped distinguish the most important communication skills that need to be developed in the first place when teaching English language to future interpreters.

Among the practical results of the study it is necessary to mention the development of communication exercises, role plays and communication activities which should be practiced in multimedia classroom as simulation of real workplace communication. We found evidence in favor of focusing on training of the particular communication skills during work with undergraduate students, in order to achieve the best results with teaching them skills of effective communication in English.

At the same time, it is important to note that applying systems methodology to research of the students' individual progresses in communication can be quite time-consuming and complicated. It cannot be done right in the classroom, and the problem of fast evaluation of the students' individual progresses in development of communication skills still remains unresolved. University teachers are still in need of simpler ways to evaluate students' progress in learning to communicate. Application of system dynamics methodology to evaluation of students' progress in effective communication is just one of the possible

approaches to the solution of the problem; however, it requires organizing of additional training sessions for teachers before they can apply the methodology in their work.

The study of university students' professionally significant communication skills during their classes of English, taught in multimedia-based classrooms, was conducted in groups of undergraduate students, who major in translation and interpreting. Among the main achievements of the research was implementation of universal scientific methodology of dynamic systems management, which allowed the authors to distinguish the most valuable characteristics of communication process, which need to be developed as skills of effective communication in order to prepare future interpreters to successful work in their working places. The year-long research also proved the advantages of teaching communication skills in multimedia-based classrooms. In course of the research, a new method of assessment of students' individual communication performances was developed, and a structure for a new teaching technology, which offers sets of communication exercises to be practiced in multimedia-based classrooms, was offered. Introduction of the technology into the classroom process has demonstrated appreciable improvement in students' communication performances, reconfirmed the efficiency of using multimedia in classroom communication, and helped reconsider the role of teachers in multimedia-based classrooms. Sets of methodological recommendations for teachers, who will be introducing the technology in classrooms, are being developed to ensure maximum efficiency of its applications.

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Тимченко І. І., Бадан А. А., Недайнова І. В. НАВЧАННЯ ЕФЕКТИВНІЙ КОМУНІКАЦІЇ ПЕРЕКЛАДАЧІВ У МУЛЬТИМЕДІЙНОМУ КЛАСІ

У цьому дослідженні вивчається розвиток професійно значущих навичок спілкування студентів університету під час занять англійською мовою, що викладаються в мультимедійних аудиторіях. Дослідження, проведене в групах студентів бакалаврату, профілюючою дисципліною яких є усний та письмовий переклад, визначило набір найцінніших комунікативних навичок, які потребують особливої уваги початківців-перекладачів.

Необхідність зосередження уваги на розвитку цих конкретних навичок зумовило методологію викладання та послідовність багаторічного дослідження, яке: 1) визначило 7 професійно значущих комунікативних навичок, що впливають на ефективність спілкування перекладачів у робочому середовищі; 2) довело переваги викладання цих навичок студентам саме в мультимедійних аудиторіях; 3) привело до розробки зручного способу розуміння та оцінки індивідуального прогресу студентів у вдосконаленні 7 професійно значущих комунікативних навичок; 4) розкрило шляхи вдосконалення технології навчання шляхом розробки комплексу вправ, що відпрацьовуються саме в мультимедійній аудиторії з метою відтворення ситуацій робочого спілкування та перекладу.

Впровадження цих вправ у навчальний процес показало помітне покращення у спілкуванні студентів. Для забезпечення максимальної ефективності застосування таких завдань були розроблені методичні рекомендації, якими можуть скористатися викладачі, що впроваджують комплекс цих вправ у мультимедійних аудиторіях.

Ключові слова: мультимедійна аудиторія, комунікативні навички перекладачів, професійно значущі навички, ефективні навички спілкування, імітаційні вправи.