

# Applying Digital Technologies to Teaching Oral Referencing in a Non-Linguistics University

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**Abstract**— The article gives a complex research of the main approaches to solving the problem of applying digital technologies to teaching oral referencing in a non-linguistics university. Special attention is given to a close analysis of Russian and foreign methodological literature and the experience of teaching oral professionally oriented referencing both in Russia and abroad. On the basis of the work done the authors describe the results of their own attempts to implement methodology introduced in the Moscow technical University of communications and informatics. During five years of using practical methods of teaching professionally oriented oral referencing skills at foreign language classes with full-time, correspondence and distance students of a non-linguistics university the authors found out typical difficulties the students faced while preparing their tasks (both in class and at home): data compression implementation, attention switching from listening to recording, lexical, grammatical and phonetic obstacles etc. Psycho- and physiological characteristics of students and the equipment they used were also taken into consideration. The results achieved led to compiling a video course “Teaching foreign language oral referencing” (the author: T. V. Kozhevnikova ) where the system of various relevant exercises of different types was provided. The video course containing specially chosen professionally targeted video spots that portrayed communication technology achievements was successfully used on line during the COVID-19 isolation period. That gave the authors even more grounds for the recommendations concerning the most effective features of digital devices, combination of different approaches and digital techniques application to achieve verified practical tasks.

**Keywords**— *non-linguistics university, oral foreign language referencing, teaching methods, results achieved, perspectives for further development*

## I. INTRODUCTION

The age of digitizing is upon the world. Digital technologies are now an integral part of contemporary reality surrounding practically all spheres of human life. They have demonstrated their immense abilities just recently, at the Covid-19 pandemic, providing functioning, control, interacting of state structures etc. thus helping mankind survive. In the foreign languages teaching researchers actively study promising capabilities of digital technologies and teachers willingly implement various new methods supported by their application in practice. Digital technologies are

electronic tools, systems, devices, and resources that generate, store or process data. Digital learning is any type of learning that uses these technologies. The authors of the article make an attempt to generalize the experience of the researchers concerning digital technologies usage in a particular teaching area, namely, in teaching oral referencing in a non-linguistics university.

The Federal Educational standards of the Russian Federation (of the latest generation) [1] point out that for conducting one’s professional activities a non-linguistics university graduate must be able to make referencing of scientific information both in native and foreign languages. This requirement stipulates the necessity to include development of oral and written referencing skills into professional training of a non-linguistics university student. Accordingly much attention in foreign languages teaching practice is paid to referencing training but mainly it is training in writing referencing of written texts. For that the methodological science has created a considerable theoretical basis and rather extensive volume of practical works and recommendations (I.A. Simnyaya, A.S. Vigotskiy, A.A. Leontyev). But oral referencing still remains on the periphery of the methodologists and teachers’ attention.

Pedagogical science has keenly responded to the changes in society and determined new educational goals. Hence, as in the present day world a person gets most of business, scientific, daily life information in the audiovisual way (unlike previous generations that used mainly printed resources), oral referencing skills teaching turns out timely. This teaching direction has become the subject for theoretical and applied work.

## II. METHODOLOGICAL AND PRACTICAL BASIS FOR PERFORMING ORAL FOREIGN LANGUAGE REFERENCING . EXPERIENCE GAINED

### A. Analysis of methodological literature and existing practical methods of foreign language referencing

Present day researchers broaden the classic definition – “a brief rendering in a written form” into “an essay that in spite of it’s brevity should convey the main information of the material under referencing and the author’s conclusions” [2]. The review of the methodological literature gives the

possibility to generalize the main characteristics of written referencing and transfer them to oral referencing.

“The method of oral referencing teaching is based on the text compression on the semantic and structural levels [3]”.

“Oral referencing of oral foreign information is provided by a complex of skills: compression, paraphrasing, differentiation, ranging, etc. [4]”.

Information reduction is conducted at the expense of details, descriptions, insignificant data omission; generalization of information is made; the syntactic structure of a sentence inevitably changes [2]. The questions arise: what should the method of oral referencing be aimed at? What should a specialist be able to do in this kind of professional communicative activity? Here the methodological concepts of the authors [2],[3],[4] coincide. It is necessary: -to choose professionally important information; -to separate principle information from the less important information; -to produce the content of the audiovisual material in the oral form logically clear and briefly; -to fulfil foreign speech operations of combining, generalizing, reducing.

To achieve effective and qualitative results in referencing the whole complex of these skills and abilities is necessary. Its formation and development are provided by systematic training based on a specially worked out set of exercises.

Researchers [3], [4], [5] divide the oral referencing process into 3 stages: preparatory, analytical and synthetical, at which the secondary text is produced. Receptive and reproductive speech activities take place. For their development various specialized exercises are worked out. For example, A.D. Kulik [3] suggests the model of oral referencing training, including 18 kinds of exercises. The researcher considers them to be obligatory. The exercises contain speech operations characteristic of the referencing process and represent a mechanism of oral secondary texts creation. They also reveal psychological processes of referencing [7]. Systems of exercises aimed at oral referencing skills development are also given by other authors [2], [3], [4].

The theoretical basis of oral referencing teaching contains researches concerning difficulties the teachers and learners are faced with. According to studies the difficulties may be of linguistic, informational, socio-cultural and psychological nature [4], [6]. Methodologists A. V. Guseva and S. O. Daminova [6] present a classification of difficulties and recommendations to cope with them in the course of oral referencing skills teaching. For example, it is recommended to take into account a kind of a sensor system a student possesses. For more effective referencing of the information in a foreign language one should use the system better developed in the case. The authors come to a mutual conclusion that with the support of authentic audiovisual means and a system of specially prepared targeted exercises, enlisted difficulties are eliminated and skills in such a speech activity as oral referencing emerge.

The conclusion that authentic audiovisual materials are really an effective means for oral referencing skills development is confirmed by T.V. Kozhevnikova's personal 5 years teaching professionally oriented referencing skills in the

Moscow technical university of communications and informatics (MTUCI).

In the process of developing a new, in essence, didactic oral teaching model a practical course of oral referencing skills teaching applying digital technologies was compiled (the author: T. V. Kozhevnikova ). The video course consists of 11 units containing specially chosen, professionally targeted video spots that portray contemporary communication technology achievements. Videos are taken from the Internet, the sound track is performed by native speakers. Completely authentic nature of the videos enhances their effectiveness. The video spots used completely satisfy the obligatory requirements concerning the structure of scientific multimedia texts, i.e. logical sequence: a designation in the beginning, an exposure of the contents in the main part, and summation in the conclusion [7]. Immense instructive capabilities of the correctly chosen material are supported by a number of diversified exercises, including ones aimed at elimination of the difficulties the students may face in the process of referencing [6]. While compiling the video course the fact that the present-day students are more accustomed to interaction with a video-medium - movies, cartoons, presentations, animations, games, clips - than previous generations was taken into consideration. Now students are digital natives [8]. So, applying audiovisual means on the platform of digital technologies widens the conditions of a traditional lesson, stimulates almost real communication, provides significant enhance of cognitive interest and reduces psychological tension during the learning process. The video course demonstrates implementation of new teaching strategies on new technologies and their integration into modern practice of learning foreign languages.

Over the previous decade a considerable number of both theoretical and practical methods of digital technologies integration into a learning process has been accumulated. Applying digital technologies, usage of the Internet resources introduced quite significant changes in teaching and gave the opportunity to solve more didactic tasks. Thus, the abilities associated with mental operations of analysis, synthesis, abstraction, comparison, selection, etc. that are very important in oral referencing teaching, can be developed and improved more effectively.

Various technical means constitute digital medium. Only one technical means comprises practically all the others that exist – it is an interactive whiteboard. In a classroom it seems to possess unlimited capabilities. Advent of an interactive whiteboard is a great event for any learning process, foreign languages including. Profound studies have already been conducted by researchers to understand the impact of digital technologies applying in teaching, to describe approaches and methods of their use [8], [9], [10], [11], [16], [17], [18]. The advantages of the whiteboard use are numerous, overwhelming [11] and studies of this education trend will be continued. Here, another foreign languages teaching area is worth mentioning. It is Content and Language Integrated Learning-CLL. The whiteboard here guaranties novelty and visual clearness of presenting the material and also various abilities for a discussion, for assessing the level of the language phenomena mastering, the contents comprehension,

for developing oral foreign language skills as well [10]. Within the CLL it is possible to successfully develop oral referencing which has already been done for more than 5 years in the MTUCI.

Digital technologies are introduced into teaching and learning process and call for new approaches, methodologies, content and new teaching media [11]. At present there are different media - home or school premises, university language labs, conventional and mobile telephones, e-mail. The newest and the most popular education media with the youth – multimedia.

#### *B. Requirements to a modern foreign language textbook suitable for oral referencing*

The media do not exist separately, they are often crossed and interconnected. Different educational media can be linked by a specially compiled modern basic textbook of a new type [12].

The requirements such a textbook should meet were elaborated by many authors including T.V. Kozhevnikova - the head of the foreign languages department of the Moscow technical university of communications and informatics - and found practical implementation in the textbook “English for communications students” [13].

This textbook has been used for about 10 years as a basic one for full-time, correspondence and distance students taking bachelor’s, master’s, specialist’s, postgraduate’s courses in all specialties of training at the MTUCI. It has undergone 7 re- editions and has every reason to be considered a modern authentic textbook related to the new and perspective “blended” trend in education. Blended training evolved due to the necessity to combine traditional and distance approaches in teaching and learning. The textbook “English for communications students” contains materials that can be used both traditionally and distantly, and adapted to be used in any medium. The methodologists state the methods and approaches of distance learning can be successfully realized in referencing skills development. The textbook used in the MTUCI can be applied, in particular, in oral referencing skills teaching assisted by digital technologies. The whole policy of the textbook serves for that. The methodological principles of a modern blended textbook concluded by the author are as follows:

- the textbook is intended to provide training in reading, writing, listening comprehension skills, oral and written foreign referencing skills including;
- the content chosen for the textbook should cover not only professionally oriented materials, but polytechnic, sociocultural, everyday life aspects as well, thus making students educational horizons wider. For example, such an expedient ratio can be suggested: 2/3 of the textbook should be devoted to everyday life, cultural, polytechnic themes and 1/3 – to the professionally oriented subjects [14];

- the textbook should be flexible, i.e. capable to be used for teaching students of different levels of a foreign language knowledge;
- the contents of the textbook – texts, exercises, assignments, vocabulary, different notes – should be completely authentic;
- the explanations are recommended to be given and conducted in English;
- all the theoretical explanations of lexis and grammar are presented in brief (different reference books are available);
- the textbook should provide the opportunity to implement the suggested assignments via the Internet or SMS;
- the texts in the audio supplement should be read by native speakers;
- in the course of time the elements of the textbook structure and parts of the content may be modernized or upgraded due to arrival of new methodological approaches, technical aids or technologies;
- convenient addition of a new material also must be foreseen;
- the concept of the necessity of a permanent foreign language mastering perfection is realized on the basis of the textbook contents [10].

These methodological concepts are strictly observed in the training appliance “Audition English course for communications students” [15].

It’s a modern training appliance aimed at developing non-linguistics students’ skills and abilities in listening comprehension (audition). So, on the basis of years of the training appliance practical use with the first and second year students (bachelors), students taking their master course in all directions of training at the MTUCI, post graduate students, the conclusion becomes evident: the training appliance may be effectively used for teaching oral referencing skills in full measure.

The “Audition course” can be adjusted to work in different educational media. It is adaptable for teaching students of different levels of a foreign language knowledge.

The content is completely authentic, not adapted to Russian, up-to-date, interesting, always cognitive and motivating. The training appliance is intended to be used in combination with the basic textbook employed in the MTUCI – «English for communications students» [13] and for work both in classroom and at home, on students’ own. More sophisticated texts are successfully used while working with postgraduates. The texts, grammar and lexical phenomena are given only in communicative situations, all the assignments, explanations, notes are given in English. The training appliance has been published and re-issued and there exists its e-version too. The assignments can be performed traditionally or via the Internet and SMS.

The two main parts of this training appliance are divided into blocks or units. Each of the ten units contains texts (that are monologues and dialogues) supported by a specially chosen list of active vocabulary to learn and purposeful set of tasks.

Without systematic work with an apparatus of specially designed exercises it is impossible to develop the foreign referencing skills [3], [4], [5] et al. While composing such an apparatus for the textbooks [9], [10] the conclusions of the researchers [4], [3], [5], [6] were taken into account. The classification suggested by A.D. Kulik [3] comprises 18 kinds of exercises. The researcher distinguishes 3 groups of exercises: linguistic, speech and communicative. Then the groups are subdivided into a number of exercises of a specific kind. Each of them introduces and trains a particular operation characteristic of oral referencing. For example, there can be substitution - prognostic and reconstruction – exercises (missing words, half-sentences, etc.), partial translation (translation of separate words, word combinations, sentences, extracts), making a plan of the text heard, expressing its main problems, dividing it into logical parts, giving its resume/summary etc. Also such questions as how is note-taking different from dictation, what are notes for, who are they for, what is the best system of making notes are recommended to the learners. The following diagram can serve as a good stimulus for oral referencing:

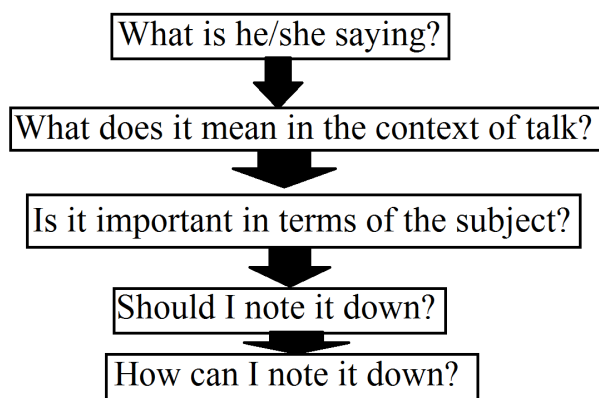


Fig. 1. Diagram of oral referencing

All of the tasks given in the textbook and a training appliance can be fulfilled with the help of technical devices, the Internet, via SMS. The scripts of the texts are supplemented to [15]. The e-versions of the textbooks [13], [15] are available on the MTUCI site.

### C. Abilities developed through the use of digital technologies

To teach students to perform oral referencing in a foreign language means developing such abilities as purposeful perception, assumption, comprehension, analysis, restructuring and interpretation of audiovisual information [3]. Applying digital technologies opens up vast opportunities to achieve these goals and obtain better results.

Different issues of teaching foreign language oral referencing are in the focus of the researchers' attention. They

notice that new technologies application allows learners to foster 4cs: communication, creativity, collaboration, critical thinking [9]. One of the biggest benefits the digital technologies provide for language learners is widespread availability of authentic resources that promote intercultural understanding and help interact with virtual people in real non-fabricated contexts. The ability to communicate with people outside the classroom has enabled students to meet and interact with others in English, otherwise some of them might not have such a chance. Computer usage in language teaching provides an authentic environment for people to communicate with native speakers in an inexpensive way [16].

For teaching oral referencing skills the following characteristic abilities that digital technologies provide are appropriate: rehearsal recording and editing spoken work digitally allows students to improve their pronunciation, boost their confidence, extend their speech and listen back as many times as they like [8].

Some authors admit that the technologies use is capable of inducing student's language learning anxiety as it gives them the chance to practice language comfortably without being embarrassed of making mistakes [17]. The technologies give the opportunity for students to work independently at their own pace as they are conducive to personalized and independent learning [8].

Students' answers should be systematically analyzed and assessed. Multiple choice and true-false questions are often correctly assessed by most, if not all current assessment systems. However, short answers and essay questions are comparatively more difficult to grade automatically. Many of the e-books lack a robust assessment system. An extra space or a comma makes the response mark incorrect [9].

Integrating innovative technologies into teaching practice inevitably makes teachers acquire new technological and pedagogical skills and facilitate technological innovations.

Generation of teachers has evolved who may be called learning technologists. Nevertheless, sometimes, a learner may, on the surface at least, appear to be more digitally competent than his teachers are.

### III. CONCLUSION

Summing up all said above and adding our own COVID-19 experience it is possible to come to the following conclusions:

1) for the teacher:

- oral referencing teaching can be synchronized (performed simultaneously with all students) and postponed (performed with different students at different time);
- technical devices help building a bridge for communication and engagement but mustn't be used for the sake of technology;
- in addition to the satellite TV, video spots and presentations such information resources as GoogleDoc, Whatsapp etc. can be used both in the classroom and for learner's independent work;

- online learning becomes faceless: it is impossible to identify students' individualities and show the teacher's interest in them;
- it is difficult to stimulate online students' motivation to master oral referencing;
- raising hands is no good online as it is always the same students who participate;
- foreign languages teachers are often not ready to conduct online lessons in large groups;
- students don't always evaluate the lessons objectively;
- the effect of actual teacher's presence is lost online;
- students are not always attentive because of the lack of strict control on the part of the teacher;
- while introducing the material online the teacher should have only one idea and only one most pressing issue;
- clear understanding of a successful online experience and reasons for attributing success to new technologies, new methods etc. should be known to the teacher;
- instruction moves from group space to individual space and the resulting group working space appears;
- flexible online environment should be created;

## 2) for the students:

- external resources lead to students' comparison of different teachers with their own;
- the email mode of work has become obsolete and is no more interesting for the students;
- each online student develops his own functional acceptance and thinking, feeling or wishing to become a leader, that's why it seems to him that the work is very difficult as he doesn't feel group support;
- voice typing for speech recognition is rather difficult for learners;
- students concentrate on digitized tasks more as they should do them in limited time due to limited time introduction of oral texts;
- tasks should be typed (not written) for the teacher to check them easily and correctly;

## 3) both for the teacher and the students:

- work can be performed individually and in groups with equal success;
- the teacher and the students should feel that they are in the online learning process together: develop the feeling of mutual commitment through mutual virtual coffee breaks, mutual games etc.

- at oral referencing lesson max 30 min should be allotted to the video for advanced learners and 15 min to ordinary ones.

According to our experience students should be roughly divided into two large groups: those who have accepted online referencing learning completely, mastered learning technologies and thus found new ways for self-development and those who haven't adapted to new technologies, avoided taking part in online learning (not always because of the lack of modern equipment) and become disappointed in the educational process. Meta groups of the kind can be formed which at first are connected with learning interests and then – with targeted communication not only during classes but also at leisure.

Online work has become a fashionable trend lately. Transformation from civilization with a printed book to the media civilization is similar to that of transforming from oral communication to the written one. Everything new is always opposed but in the end progress always wins. The same is true for computerized oral referencing learning.

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