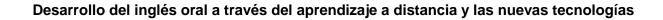


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Artículo de Investigación



Developing oral English through distance learning and new technologies

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ABSTRACT

Background: English language teaching is a priority in the comprehensive preparation of medical professionals. In the current circumstances, distance education is a way to continue the teaching-learning process in higher medical education.

Objective: To design for its implementation a system of learning tasks aimed at developing oral expression skills in English through distance education in 2.nd year medical students.

Methodology: It was adopted the materialist dialectical method as the general methodological conception of the research, and other methods, from the theoretical level: analysis and synthesis, induction-deduction, systemic-structural-functional, historical-logical and modeling; empirical: documentary analysis, survey, class observation and statistical procedures.

Result: The main difficulties were related to the limitations in the treatment of the oral expression in the English language, insufficient preparation of the students on the analyzed topic and their limited ability to develop oral expression in this language, so a system of learning tasks was developed to solve these aspects.

Conclusions: The experts considered the system adequate in terms of its structure and feasibility of implementation, contributing effectively to the consolidation of cultural training and at the motivational level.

MeSH: EDUCATION DISTANCE/methods; EDUCATION MEDICAL/methods; EDUCATION HIGHER; STUDENTS MEDICAL/education; LIMITED ENGLISH PROFICIENCY; CULTURALLY APPROPRIATE TECHNOLOGY/education.

Keywords: Education distance and methods; education medical and methods; education higher; students Medical and education; limited English proficiency; culturally appropriate technology and education; COVID-19.

RESUMEN

Fundamento: La enseñanza del idioma inglés constituye una prioridad en la preparación integral de los profesionales de la salud. En las circunstancias actuales la modalidad de educación a distancia es una vía para garantizar la continuidad del proceso docente-educativo en la educación médica superior.

Objetivo: Diseñar para su implementación un sistema de tareas docentes que contribuya a desarrollar la habilidad de expresión oral en inglés a través de la educación a distancia en los estudiantes de 2.^{do} año de Medicina.

Metodología: Se realizó un estudio experimental en la Universidad de Ciencias Médicas de Holguín durante el período de marzo hasta septiembre de 2021. Se utilizó el método dialéctico materialista como concepción metodológica general de la investigación y se emplearon otros del nivel teórico: análisis y síntesis, inducción-deducción, sistémico-estructural-funcional, histórico-lógico y modelación; empíricos: análisis documental, encuesta, observación de clases, y estadísticos.

Resultados: Las principales dificultades estuvieron relacionadas con limitaciones en el tratamiento de la expresión oral en inglés, la insuficiente preparación de los estudiantes en torno a la temática abordada y sus limitaciones en la habilidad de expresión oral en este idioma, por lo que se elaboró un sistema de tareas docentes para solucionar estos aspectos.

Conclusiones: Los especialistas valoraron el sistema como adecuado por su estructura y factibilidad de implementación, contribuyó de forma efectiva en la consolidación de la formación cultural y en el plano motivacional.

DeCS: EDUCACIÓN A DISTANCIA/métodos; EDUCACIÓN MÉDICA/métodos; EDUCACIÓN SUPERIOR; ESTUDIANTES DE MEDICINA/educación; DOMINIO LIMITADO DEL INGLÉS; TECNOLOGÍA CULTURALMENTE APROPIADA/educación.

Palabras clave: Educación a distancia y métodos; educación médica y métodos; educación superior; estudiantes de Medicina y educación; dominio limitado del inglés; tecnología culturalmente apropiada y educación; COVID-19.

INTRODUCTION

The use of distance learning has allowed the teaching-learning process to continue during the COVID-19 pandemic in the Cuban Higher Medical Education, which has a renovating approach, and requires the innovation of modern pedagogical strategies to promote autonomous learning and formative self-management in the construction of knowledge, mediated through the use of information and communication technologies. ⁽¹⁾ These circumstances have led teachers to develop skills using online resources to teach and know their students like never before, and in this sense, the training of the teachers during the last decade has been arduous, since it has been considered to find, from a critical point of view, new teaching strategies based on a better understanding of the processes involved in the teaching-learning process. ⁽²⁾

In the case of this research, the use of these resources is related to learning a foreign language: English, specifically oral proficiency, which is defined as the linguistic skill involved in producing oral discourse. It is a communicative skill that includes not only the pronunciation, vocabulary and grammar of the target language, but also sociocultural and pragmatic knowledge. It consists of a series of micro-skills, such as providing information and opinions, showing agreement and disagreement, resolving conversational errors, or knowing when it is appropriate to speak and when it is not. (3) The advantages of distance learning to ensure the acquisition of knowledge inside and outside the university environment are a good alternative in the current context, where work overload and the complexities of modern life make face-to-face access to traditional classrooms difficult. In this sense, Information and Communication Technologies (ICTs) are a basic element for achieving these targets. (4) The theoretical foundations derived from the previous studies, the methods used and the author's experience in educational practice have allowed the identification of several regularities in the teaching-learning process of foreign languages:

- Scarce availability of bibliographic materials for oral communication.
- Limited preparation in developing oral communication related to medical topics.
- Insufficient levels of fluency to develop oral communication in different socio-cultural contexts with the required originality.
- The virtual learning environments available in health care institutions for learning, consultation, or interpersonal exchange are not systematically used.

As a result, it is assumed the presence of an insufficient development of oral expression in English in the 2.nd year medical students of the University of Medical Sciences of Holguin. The author adheres to the potential offered in this field by distance education and the inclusion of ICT, then it is determined the object of research: English teaching-learning process in medical students, and the scope of action is focused on developing linguistic skills in this language in the 2.nd year of this career. The deficiencies mentioned before motivated to research on the subject with the aim of: design for its implementation a learning system aimed to develop the oral expression skills in English through distance education in 2.nd year medical students.

METHODOLOGY

The present work responds to an experimental study carried out at the University of Medical Sciences of Holguin from March to September 2021, taking into account the curricular strategy in the teaching-learning of English, and at the same time, the work stream of the University: independent work in distance education. The population consisted of 165 2.nd year medical students and 46 English teachers, and the sample consisted of 98 students and 17 teachers selected by random sampling, according to the disposition of the object, objective and scope of the present investigation, representing 59.3 and 36.9% respectively in the selection criteria, it was determined the 2.nd year medical students to carry out the various instruments, taking into account certain aspects addressed in the E Curriculum of this career. The discipline constitutes a favorable framework for obtaining the integral formation of students through the implementation of curricular strategies developed by each University Center according to its particularities; From the very first subjects, activities related to the professional profile of the students are introduced, thus no differentiation is made between the study of general English or specific English in the discipline.

(5) In the present work, the materialist dialectical method was adopted as the general methodological conception of the research, and the following research methods were applied:

From the theoretical level: Analysis and Synthesis and Induction-Deduction: To interpret the bibliographic information related to the teaching-learning process of English, oral expression as an essential aspect in the teaching-learning process, its link with distance education and new technologies, as well as in the generalized analysis of the results. Historical-logical: Aims to obtain the historical background of the subject under study. Systemic-structural-functional: was used in the construction and organization of the information contained in the paper.

Modeling: Used to develop and structure learning tasks.

From the empirical level:

Documentary analysis: with the aim of obtaining relevant information on the current level of oral expression in English, the critical analysis of the curriculum and programs of the discipline, to analyze the information related to aspects of the teaching-learning process of English in medicine. Survey of students: In order to determine their criteria regarding the use of technologies and the modality of distance education in learning English, the requested items were evaluated according to professional criteria. Interview with the teachers of the subject: to analyze the form and the treatment of the oral expression in the career; it contributed novel elements related to the shortcomings, needs and expectations of the students around the already existing texts and exercises and on the new ones proposed. Statistical Methods: The McNemar test was used to analyze the results of the instruments used. Workshops of critical opinion and collective construction: with the aim of confirming the relevance of the proposal and redirecting the actions for its improvement, 17 English teachers with a wide experience in higher medical education of around 15 years were selected; 9 hold the scientific category of Master's Degree in Educational Sciences and Medical Education.

The following indicators have been used:

- Creativity in the topics and learning tasks developed.
- Active participation in the development of activities.

- Motivation of the activities used to develop oral expression through participation and interaction through virtual media.
- Relation between the contents addressed and situations of their practical life.

RESULTS

Based on the descriptors established by the Common European Framework of Reference for Languages ⁽⁶⁾ and the triangulation of empirical level methods, the main findings were listed: The documentary analysis ⁽⁷⁾ establishes the following among the general educational objectives of the general practitioner "To have an expertise of the English language as a 2.nd language for communication, reading and writing; to use ICT and the English language for performance and professional improvement; to disseminate research results through scientific publications and presentations at events, with an adequate command of the Spanish or English language, if necessary".

In this sense, the discipline of English provides the tools to strengthen the interdisciplinary relations between the subjects that make up the study plan, based on the objectives and contributing to the system of skills and values to be formed in the future graduates. However, the inclusion of the possibilities offered by distance learning through ICT in the formation of oral communication in this language was insufficient. Of the 98 students interviewed, all of them stated that they were interested in learning English in order to better prepare themselves and broaden their general and integral culture, to consult bibliographies written in this language, and to obtain information and knowledge on a specific topic in the 2.nd indicator, 61 students (62.24%) stated that the development of the foreign language skills was insufficient, as well as they stated that they had difficulties with vocabulary and grammar. As for the indicator 3.rd, 93 students (94.89%) recognized the shortcomings related to the subject and their limited ability to develop oral expression in English in the fourth indicator, all reported that they felt motivated to develop this skill through distance learning using technology.

In interviews with 17 teachers of the subject, they agreed that there were limitations in the development of oral expression due to the student's limited knowledge of a certain subject, one of the greatest difficulties was the interference of the mother tongue. Likewise, all felt that there was not enough systematicity to work on oral expression skills. In addition, the complex scenario caused by COVID-19 is taken into account, the use of distance learning and new technologies for the continuity of the teaching-learning process is appropriate because they motivate learning, are useful for the acquisition of linguistic and cognitive skills, and create an appropriate environment in the classroom due to their playful nature, in addition, they create an unconscious use of language, for which 100% considered it necessary to prepare learning tasks to develop oral expression in English, where the use of these tools is promoted. In terms of the design of classroom preparation, research and development of programs that include the introduction at all levels of education of the most appropriate methods and materials for different types of students, the acquisition of communicative competence tailored to specific needs should be encouraged. (8)

On the basis of the above, a set of learning tasks for the development of oral expression skills in English through distance learning has been elaborated for 2.nd year medical students, corresponding to the peculiarities of this age group, in order to achieve constant motivation and the proposed objectives; a sample can be observed in Table 1, 2 and 3.

Table 1. Learning task. Unit 1 Engage and speak up clearly.

Objective	To practice oral skills through didactic games.					
Procedures	For this activity, you will be given 10 tongue twisters. You will read each one and practice saying it without any mistakes. After practicing, ask a partner (using WhatsApp or other social media) to be the facilitator of this activity. Have your partner hold the checklist below. Check the box (/) for each correct tongue twister you recite and cross out (X) if you made any mistakes while reciting it. 1. I have got a date at a quarter to eight, I'll see you at the gate, so don't be late. (2x) 2. Can you can a can as a canner can can a can? (2x) 10. Peter Piper picked a peck of pickled peppers A peck of pickled peppers Peter Piper picked. If Peter Piper picked a peck of pickled peppers Where's the peck of pickled peppers Peter Piper picked?					
Teaching aids	PC, smartphones, WhatsApp or any other social media					
Assessment	Co-evaluation					
Grammar focus	Vocabulary related to the communicative functions studied.					
Participation	Work in pairs					

Source: Own elaboration.

Table 2. Learning task. Unit 2 Reach your star.

Objective	To practice oral skills using the communicative functions studied.
Procedures	Integrate the knowledge gained from the previous level, record your voice or make a self-video using a voice recorder or any other device. Reach your star and make your voice heard. Be sure to upload your audio or video clip to the virtual classroom or send it to your group chat on Facebook Messenger, WhatsApp or email within the submission date. As a communicator of your school, you are appointed to make a 1-minute or less news report about your school's response on COVID-19 Pandemic to members of the school community. Be sure to provide details and accurate information in your report.
Teaching aids	PC, smartphones, virtual classroom, social medias.
Assessment	Co-evaluation
Grammar focus	Vocabulary related to the communicative functions studied.
Participation	Work in small groups

Source: Own elaboration.

Table 3. Learning task. Unit 3 Review.

Objective	To practice English pronunciation, intonation, fluency through shadowing technique.				
Procedures	In English, shadowing means listening to someone speak and then trying to copy the sounds they make. It is the perfect method for learning and practicing stress patterns in English. All you need to practice shadowing is A quiet space where you can speak and not be disturbed A bit of free time Some audio that you can use for shadowing. For this activity, you are given 3 audiovisual materials. Download those materials from the virtual class and follow these steps: Step 1: Listen to the audio and read the transcript at the same time. Listen to the whole thing without stopping until the end. Don't worry too much about understanding everything you hear. This is just to give you some time to hear the audio you are going to copy. Step 2: Listen to the audio again, but this time pause at the end of each sentence. Then try to repeat the sounds you just heard. You should practice each phrase 3-5 times before moving on to the next phrase. Try to pay close attention to the sounds of the words and the stress of the sounds. Step 3: When you reach the end of the audio, all you need to do is repeat these 3 steps with the rest of the material. Make a video of yourself and send it to your teacher using the tool provided in the virtual classroom or upload it to your English group chat. Of course, you can practice this technique at any time you like. You can pick fragments from: TV shows, movies, radio, music, podcasts, audiobooks, YouTube videos				
Teaching aids	PC, smartphones, WhatsApp or any other social media, virtual classroom				
Assessment	Self-evaluation				
Grammar focus	Vocabulary related to the communicative functions studied.				
Participation	Individual				

Source: Own elaboration taking into account the guidelines adapted from: https://www.dansenseienglish.com/study-tips/shadowing/

Workshops of critical opinion and collective construction: With the aim of confirming the relevance of the proposal and redirecting actions to improve it, 17 English teachers with about 15 years of experience in medical higher education were selected; 9 of them have the scientific category of master's degree in education and medical education. Table 1 shows a comparison of the results gained with the implementation of the learning task system before and after the application, it was shown that in learning a foreign language there is access to a new social reality, governed by norms and conventions that can be very different. Consequently, the development of communicative knowledge was understood as part of their broader social and personal development. Nonetheless, the author found that some limitations persist related to some aspects of this language, especially pronunciation and intonation, therefore it is crucial their systemically treatment.

Table 4. Comparison of the results before and after the application of the learning tasks.

Indicators	Antes the implementation		After the implementation		McNemar Test	
indicators	Number of students	%	Number of students	%	Difference %	Interval 95% difference
Oral production level (organization of ideas, logical sequence, precision)	118	71.51	157	95.15	-33.33	-41.02 to – 25.65
Use of communicative functions	124	75.15	157	95.15	-35.15	-42.60 to -27.70
Pronunciation	87	52.72	141	85.45	-19.09	-27.64 to -10.55
Intonation	91	55.15	146	88.48	-21.82	-30.31 to -13.33
Fluency	121	73.33	152	92.12	-32.73	-40.26 to -25.20

DISCUSSION

Technological advances open up opportunities for innovation in education, leading to a rethinking of the teaching-learning processes and requiring both teachers and students to continuously update their skills in managing these resources. One of the ways in which non-English speaking countries are opening up spaces for English language learning is through the intervention and use of ICT, which have also contributed to the globalization of this language, making it necessary for everyone to master it, either as a native language or as a second language. (1) In this sense, Avello Martínez, referred to by Sanz Carrazana, et al, (9) expresses that it is essential for the current teacher to know what the competencies of the university student are, and especially the digital competencies, thus that they can undertake successful digital literacy in their teaching activities with their students. The current medical university has assumed among its challenges, the use of ICT as part of technological changes based on the educational teaching process.

For this, the importance of the computer sciences and the English language has been raised as indispensable weapons in their functions, both labor and investigative. Both areas are essential for conducting scientific activities by searching for information in specialized bibliographies, as well as for facilitating oral and written communication in areas where these skills are required within the professional profile. (10) The use of mobile devices in education is called m-learning or mobile learning, this not only speeds up information management activities, both inside and outside the classroom, but also poses the challenge of constantly evolving and developing didactic strategies in line with the demands of new generations and the possibilities offered by technology. From a general point of view, it can be assumed that mobile learning has the advantage of motivation, portability, immediate feedback and time freedom. This is proving to be a solid and innovative alternative for its use in various areas of education, particularly in the area of teaching English through the use of multimedia and Internet access. (9,11) The teacher must be aware of the need to master the tools offered by ICT in order to develop teaching aids that encourage reflection and critical thinking, they do not meet the needs of the different educational models on their own, but they must be considered in a well-designed pedagogical model in which each of the components involved has its role well identified and established. (11)

Within the teaching-learning process of English, oral expression skills have a fundamental role as communicative activities that are the center of the skeleton or conceptual organization of communicative language teaching,

involve learning in authentic communication and that this can also take place in a context of interaction between two people in one of the infinite situations of daily life; but it can also be arranged for learning purposes in the context of the class.

In this sense, the social humanist approach to education, which focuses on the development of communicative competence in English, recognizes that learning is constantly being developed in different contexts and in very diverse ways, in accordance with the teaching-learning process in which knowledge is integrated, skills, virtues and values are fully mobilized as functional knowledge in specific contexts. (12-14) When planning oral expression activities, the teacher must take into account the characteristics of the class, that the techniques and activities are motivating and designed to achieve communicative competence as a set of interrelated abilities. (15)

Regarding language and medical issues, it must be remembered that physicians are speakers like any other professional, and their expression will depend to a large extent on the good or bad language training they have received as part of the general population. (16) When planning oral expression activities, the teacher must assume the characteristics of the class, that the techniques and activities are motivating and are designed in such a way that communicative competence is achieved as a set of several interrelated skills. (15)

The learning tasks presented are flexible in nature, as they allow you to work with the oral aspect of the language in an integrated way. It is based on linguistic and psycholinguistic principles, which, in the specific case of foreign languages as a means of communication, are as follows the linguistic element has a particular implication, and this lies in the fact that the teaching of a foreign language means taking on the part that must constitute the linguistic material that allows the learner to participate in the communicative activity. (6,17-19) The results provided by the specialists in critical opinion and collective construction workshops, allowed to evaluate the effectiveness and quality of the proposal presented, through evidence of its implementation at the University of Medical Sciences of Holguin. The different methods used in the research made it possible to achieve its objective, it is necessary to mention that, given the importance of this topic in the training of general doctors, some more specific issues require more in-depth study and analysis.

CONCLUSIONS

The research conducted allowed to reveal the deficiencies in oral communication in English among 2.nd year medical students. The opinions collected by the specialists confirm that the system of learning tasks contributes to their development, which proves the consolidation of cultural training and at the motivational level.

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Author contribution

José Manuel Gamayo Serrano: Conceptualization, data curation, formal analysis, research, methodology, validation, visualization, writing (original draft, review and editing).

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