



Original article



## Process of teaching and learning English focused on communication for professional purposes






Proceso de enseñanza-aprendizaje del inglés centrado en la comunicación con fines profesionales

Processo de ensino-aprendizagem da língua inglesa com foco na comunicação para fins profissionais

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### ABSTRACT

Communication in English is becoming more important due to the growth of scientific, academic and working relationships between professionals. The diagnosis made to students of Electrical Engineering of the University of Moa, Cuba, corroborated that the scientific problem of this research is given by the deficiencies in the communicative performance, motivated by a process of Learning English not very coherent. This article aims to present a methodological approach of communication to contribute to the development of professional communicative skills of these students. The

fulfillment of this purpose required the use of the methods: hypothetical-deductive, analytical-synthetic and systemic structural-functional, as well as the revision of documentation and the interview, as techniques of the empirical level. The result conceives of textual comprehension and communicative task as possible didactic procedures for the achievement of the intended communicative purposes, based on the implementation of the curricular strategy of English. It is concluded that the strategy reveals itself as the core of the communicative process, based on the conception of the text as the axis of the language activity, either as a product or as a process and the communicative task as a unit of the learning activity.

**Keywords:** teaching-learning; English; communication; professional context.

## RESUMEN

La comunicación en inglés adquiere relevancia debido al auge de las relaciones científicas, académicas y de trabajo entre profesionales. El diagnóstico realizado a estudiantes de Ingeniería Eléctrica de la Universidad de Moa, Cuba, corroboró que el problema científico de esta investigación está dado por las carencias en el desempeño comunicativo, motivadas por un proceso de enseñanza-aprendizaje del inglés poco coherente. Este artículo se propone presentar una vía de tratamiento metodológico de la comunicación para contribuir al desarrollo de destrezas comunicativas profesionales de estos estudiantes. El cumplimiento de este propósito requirió la utilización de los métodos: hipotético-deductivo, analítico-sintético y sistémico estructural-funcional, así como la revisión de documentación y la entrevista, como técnicas del nivel empírico. El resultado concibe a la comprensión textual y la tarea comunicativa como procedimientos didácticos posibles para la consecución de los fines comunicativos previstos, sobre la base de la implementación de la estrategia curricular del inglés. Se concluye que la estrategia se revela como núcleo del proceso comunicativo, basado en la concepción del texto como eje de la actividad de lengua, ya sea como producto o como proceso y la tarea comunicativa como unidad de la actividad de aprendizaje.

**Palabras clave:** enseñanza-aprendizaje; inglés; comunicación; contexto profesional.

## RESUMO

A comunicação em inglês adquire relevância devido ao boom das relações científicas, acadêmicas e de trabalho entre os profissionais. O diagnóstico realizado em alunos de Engenharia Elétrica da Universidade de Moa, Cuba, corroborou que o problema científico desta pesquisa é dado pelas deficiências no desempenho comunicativo, motivadas por um processo de ensino-aprendizagem de inglês inconsistente. Este artigo tem como objetivo apresentar um tratamento metodológico da comunicação para contribuir com o desenvolvimento das habilidades comunicativas profissionais desses alunos. O cumprimento desse propósito exigiu o uso dos métodos hipotético-dedutivo, analítico-sintético e sistêmico-estrutural-funcional, bem como a revisão de documentação e a entrevista, como técnicas de nível empírico. O resultado concebe a compreensão textual e a tarefa comunicativa como possíveis procedimentos didáticos para a realização dos objetivos comunicativos pretendidos, com base na implementação da estratégia curricular de inglês. Conclui-se que a estratégia se revela como o núcleo do processo comunicativo, com base na concepção do texto como o eixo da atividade linguística, seja como produto ou como processo, e da tarefa comunicativa como a unidade da atividade de aprendizagem.

**Palavras-chave:** ensino-aprendizagem; inglês; comunicação; contexto profissional.

## INTRODUCTION

The issue of communication in foreign languages in higher education necessarily leads to teaching and learning of English, as it is the process by which the student develops the necessary competences to carry it out.

With the growth of collaborative links in various scientific, work and academic contexts, language teaching for professional purposes, particularly English, acquires a special connotation by reaffirming itself as a lingua franca in events of different nature, where people from various discursive communities come together.

In these circumstances, the training of a professional communicatively competent in English acquires particular significance in light of the needs and projections of the development of the Cuban nation, and in line with international trends towards the universalization of higher education.

The adoption of the Common European Framework of Reference for Languages, with an action-oriented approach, incorporates concepts different from usual practices into the process of teaching and learning English in higher education, the organization of language learning by levels of mastery and training by competences, in line with the most advanced international standards.

However, this leads to a mismatch between the learning content of courses and the particularities of social requirements, which limits the systematic and progressive development of the communicative process in the target language in the professional context.

This is one of the problems faced by teachers and researchers in English as a foreign language at universities, with regard to the integration of general and specific learning into curriculum design, particularly in technical racing. In practice, the current conception of the teaching-learning process creates a contradiction between the requirements of the Common European Framework of Reference for Languages and its contribution to professional performance.

This brings with it a constant need to experiment with possible procedures which are committed to the renewal of didactic approaches to language teaching for professional purposes, in the search for resources that allow this process towards the communicative autonomy of the speaker in various professional communicative contexts.

To this end, there must be a logical integration of the foundations underpinning the teaching-learning of English and the contents of the sciences of professional practice, the adoption of specific modes of expression and genres of communication peculiar to these sciences, which is extremely complex in the current organization of the curriculum. In this respect, Horruitiner (2006) argues that the subjects respond both to the logic of the sciences on which they are based and to the training of a specific type of professional.

The acceptance of this position in relation to the teaching of English for professional purposes in electrical engineering recognizes its role in meeting the training needs of the career and thus of society, from the point of view of communication in this language, so that it corresponds to the logic of the profession. The training of a specific type of professional does not envisage the satisfaction of individual needs beyond the expectations that vocational training generates at curricular level.

The satisfaction of communicative needs has been widely discussed by scholars. Hutchinson and Waters (1987) argue that traditionally the concept of need is identified in relation to what students

should do to learn, considering their starting point (shortcomings), the perception of need they possess, what it is wanted to achieve and the learning needs.

From a more specific position, Nunan (1991) identifies this problem with the influence of the communicative task as a basic component in the planning, implementation and evaluation of the curriculum. On the other hand, Harmer (1983) considers that the task is now widely used in language teaching, either as a basis for language courses or as one of its component parts.

There are many and varied studies on the subject at national level. Research in the field of medical sciences has been particularly extensive.

The documentary review highlights the ideas of Alberteris et al. (2018), who from a critical and interpretive position highlight the didactic challenges of foreign language teaching-learning in today's Cuban university.

Other studies identify two main directions to facilitate the acquisition of knowledge and skills needed in the use and handling of English in a professional context. On the one hand, Olivero (2022) is committed to the harmonious and intentional integration of oral and written texts and the tasks derived from them into the curricular contents of the courses by levels, in order to enhance language skills in the professional on the other hand, the implementation of the English Curriculum Strategy: Apa Terrero et al. (2019); García Hernández et al. (2019); García Cormenzana et al. (2020); Torres et al. (2020) and Navarro et al. (2021), among others, whose essence is based on the contribution of the different disciplines of the career to the systematization of these skills, with the realization of actions turned into tasks from their learning contents.

In both criteria, the teacher's concern to solve the challenge represented by the adoption of the requirements of the Common European Framework of Reference as regards the integration of the didactic act with the vocational training of the student is evident. In this direction, there is still a need for research that provides theoretical reflections and practical proposals to boost the teaching process in the context of English for professional purposes, starting from the need to deepen the study of communication, to a more interpretative position of this phenomenon, according to the communicative needs of students in the professional context of the electrical engineer.

From the study carried out it was possible to synthesize that the current conception of the process of teaching-learning English for professional purposes in the electrical engineering career of the

University of Moa, generates deficiencies in the communicative performance of the students, What leads to the identification of the scientific problem which motivated the development of this research: how to promote professional communication in the English language in the course of Electrical Engineering?

To this end, a greater degree of systematization is needed in order to reveal the essential relations of a communicative process contextualized in the communicative needs of students in the professional sphere. Thus, the research objective is to present a methodological approach that contributes to the development of professional communication in electrical engineers from the University of Moa.

## **MATERIALS AND METHODS**

This study was developed from the interpretative paradigm because, based on the criterion of Guevara et al. (2020), using data collection methods, the characteristics of the phenomenon under study were presented, organized and analyzed, through a theoretical framework which served as the basis for research.

It is framed in a descriptive field approach, which according to Arias and Covinos (2021) means that "it is carried out in the same place and time where the phenomenon occurs" (p. 67), with the use of qualitative techniques. The theoretical methods used in this research were oriented towards:

Synthetic analytical method, to analyze different points of view and approaches on the historical evolution of the process of teaching-learning English in Cuba and its impact on the career Electrical Engineering at the University of Moa, and then synthesize and establish the most important references on the use of communicative tasks and professionalized texts.

The structural-functional systemic method was also useful in linking theoretical foundations with the characteristics of the process of planning and organizing the teaching process, as it learning about the Electrical Engineering career and its various subsystems, and then determining the communicative needs of the broad-based professional in English.

The hypothetical-deductive method made it possible to reflect on concepts related to the development of communication in the professional context and establish deductions based on the bibliographical analysis carried out and the results obtained.

The following empirical techniques were applied:

The review of documentation to establish theoretical references in research, with the aim of researching literature on the development of communication in the English language in the professional context, and the link between the communicative task and textual understanding with the training process of the electrical engineer.

The open interview with first-year students of the Electrical Engineering course was used to determine their motivations, interests and needs for learning English for professional purposes. The in-depth interview was also used to obtain criteria from specialists in the Language and Electrical Engineering departments, and to substantiate the functionality of the procedures used for the development of communication for professional purposes in the career, from the curricular strategy of English.

The population was 31 first-year students of the Electrical Engineering course at the University of Moa, where the policy for improving the process of teaching and learning English began in 2023. This universe could be representative of any technical science career, as it presents characteristics similar to those observed in this study. It was worked with an intentional sample of 24 students who performed diagnostic tests of the four language skills, following the methodology of the International English Language Testing System, in which the evaluation scales designed to measure receptive (reading and listening) and productive (oral and written expression) skills were used, according to the standards defined by the Common European Framework of Reference for Languages.

## RESULTS

The process of teaching and learning English in electrical engineering is currently taking shape on the basis of the general concept of training in this language at universities, structured into general courses by level: A1, A2 or higher and the English Language Curriculum Strategy.

For the development of the teaching-learning process of English for professional purposes, a didactic material developed by teachers of the Language Department is used, which has been implemented at the University of Moa since 2009, in an effort to contextualize learning so that it responds to the professional interests of the electrical profile.

Hence, the need to emphasize in a constant renewal of pedagogical practice, based on the didactic particularities of the teaching-learning process of communication, from the recognition of the specific competences to which English as a foreign language should contribute in the Professional Model of the Electrical Engineer.

### **Analysis of diagnostic results**

The treatment of communication in English in higher education should start from determining the state of their initial development and the learning potential of students at the time they enter a university career, Once the learning needs have been identified, design the strategy that will guide and enable the adaptation of their teaching-learning process.

The diagnosis was applied to a sample of 24 first-year students. The result obtained reflected that 16 students did not reach the minimum level of A1 proficiency. On the other hand, few students managed to reach levels A1, A2 and B1. This is an expression of their lack of knowledge at the time of entry into higher education.

The implementation of this instrument resulted in the following actions:

1. To know the actual level of development of the English communication skills of the first year students based on the result obtained in the diagnostic and placement examination.
2. Explore the needs and potential of first-year students for learning the English language, by applying a standardized diagnostic or placement test to certify the level of proficiency in English.

This instrument is a decisive element justifying the design of more effective didactic procedures, aimed at driving learning towards higher levels of practical achievement in the professional context, providing information on:

- Development of communicative skills for the analysis, interpretation and construction of texts.
- Level of communicative competence of students entering higher education; potential and weaknesses.
- Elements of verbal structure and overall coherence of speech that need to be improved for better professional performance.



## Analysis of interviews

The current status and future development prospects of the teaching-learning process was also described, based on interviews with students and teachers involved in the process, based on the following indicators:

- Students' communicative needs and priorities, in English.
- Behaviour of the dynamics of the teaching-learning process of communication.
- Procedures used for the development of professional communication.

For the investigation of these indicators, an open interview was conducted with first-year students in order to determine their expectations regarding the employment of English for professional purposes.

The in-depth interview with teachers from the Language department was also used to corroborate the inadequacies present in the teaching and learning process of English, based on experience acquired in this field, and teachers in the electrical department to learn about the current English curriculum strategy and future perspectives.

The usefulness of this technique lay in obtaining information based on the opinions and criteria expressed by teachers from both departments, through constant interaction between participants.

The sample was selected according to the nature of the object, objective and field of this research, since to analyze the dynamics of the process of teaching-learning in English requires at least the following criteria:

- Elements that help determine the needs, interests and motivations of students in learning English for professional purposes.
- Relevance of the contents of the serial textbook Face2face, as the main didactic resource to be used for the acquisition of knowledge and development of language skills in the occupational field.
- Potential offered by the incorporation of communicative tasks for learning in a vocational context
- Functionality of the English language curriculum strategy, to contribute to the development of professional communicative skills in current educational practice.

It was found, then, that students have difficulties in interacting on issues related to professional activity, not being familiar with the specific terms of the electrical. On the other hand, they recognized that the current unfavorable level of linguistic performance constitutes a limiting factor for interacting with texts of complex scientific and technical content, beyond their comprehension.

However, they recognize its importance for successful professional performance and show interest in future studies, mainly in relation to communicative interaction in their professional field of action and work with texts of technical content.

As a complement to the above results, the teachers who make up the language department collective admit that among the fundamental causes which may limit the development of students' communicative skills in the professional context; there is inadequate didactic treatment of the contents. This is a methodological challenge to be faced in the search for solutions to the problem of how to carry out the teaching and learning of English in an occupational context in educational practice. In this sense, the teachers point out that the general approach to learning content of the book Face2 face, used as a means of teaching basic literature for the development of courses by A1 levels, A2 and B1, does not provide for a harmonious integration with the specific contents of technical sciences and, consequently, does not make possible a systematic and effective practice of communication in this field.

The existing teaching materials for the presentation and exercise of contents for professional purposes need to be updated, in correspondence with the particularities of current didactic approaches aimed at achieving communicative competence.

The exercise is mainly based on the use of tasks related to the verification of reading comprehension, working with the specialized lexicon and syntax most used in this type of texts. There is no clear perception of tasks representative of the remaining language skills such as listening, speaking and writing.

It requires the design and execution of tasks representative of professional life, more in tune with the proposed communicative purposes, such as oral presentations with the use of audiovisual media such as: slides and short videos, presentation of research results orally or in writing, simulations, preparation and submission of written and oral reports on the resolution of labor problems, decision-making, among others.

The interview with teachers from the electrical engineering department allowed us to investigate the potential of the curriculum subjects, in order to contribute to the development of communication through the implementation of the English curriculum strategy. It was found that there are certain limitations which need to be corrected. The most impactful ones are the need to re-size the curriculum strategy as a consequence of the shortcomings caused by the departure of the curriculum from the English discipline and, especially, from the English subject for Professional Purposes. As a result, it is necessary to strengthen the effectiveness of the strategy from the systematicity, coherence, precision and integration of its components from the actions of the subjects involved.

It is a need to raise the readiness of the career group of teachers with low proficiency in English language skills, for communication, teaching, research and promotion of scientific results, through publications and participation in international events and updating the tools to be used for better management, monitoring and control of the process.

## DISCUSSION

In action-based learning, the affective factor is decisive for achieving student involvement in the development of the communicative process. In this respect, the Common European Framework of Reference for Language Learning, Teaching and Assessment (CEFRL, 2002) stresses the importance of intrinsic motivation in carrying out the task, either because of the interest that the task itself arouses in the students or to satisfy some concrete need in real life.

Language material is one of the strategic ways to motivate students. It must be presented in a way that demonstrates that its acquisition is important for the student of Electrical Engineering, from the point of view of its functionality, in correspondence with the communicative needs to which it is intended to satisfy.

In this sense, the methodology of teaching and learning English in the professional context has been evolving towards the conception and implementation of the task, as a central axis of the work to be developed in the classes. In relation to this theme, Nunan (1991) conceptualizes tasks in terms of the curricular objectives they are intended to achieve, the availability of information which constitutes the starting point for its implementation and the activities and procedures that students carry out in carrying it out.

As important additional elements refers to the role of teachers and students involved in the performance of the task and the scenario and conditions where it takes place. This author identifies the task as a type of work scheme which has the general purpose of facilitating language learning, from the simplest and brief exercises to more complex and extensive activities such as group problem solving, simulations and decision-making.

Zanón (1995) takes into account the following characteristics in relation to the definition of the task: representative of the real-life communication process; identifiable as a unit of activity in the classroom; intentionally directed at language learning and finally, designed with a goal, structure and work sequence. This author also points out that if the emphasis of the task is on information and meaning rather than on formal aspects, then the task is communicative.

The task, whether as a central unit for planning and instruction in language teaching or as linguistic support, provides a better context for the activation of communication-related processes, by creating learning opportunities and skills development in knowledge building.

In harmony with these ideas and, more specifically, according to the objective of this work, García Hernández et al. (2019) identifies the professional communicative task as an organized didactic sequence that helps students to achieve the integral solution of problems related to their area of knowledge.

In this context, the use of communication tasks is intended to achieve a communication as close as possible to the reality of professional activity. This is justified by the prevailing trend in the teaching and learning of English today towards communication where communicative exchange and autonomous language production prevail. This is why certain types of tasks have acquired special significance. Examples of these are: oral presentations, presentation of research results, simulations, problem solving and decision making.

These tasks require a mastery of the formal and functional aspects of language, allowing different kinds of communication to be produced. They are characterized by integrating the language skills of listening, reading, writing and speaking, although the achievement of the goal for which they were created determines the predominance of one skill over the others.

In these conditions, textual comprehension becomes a key element for the elaboration of speech. Here the functionality of the text in the process of construction of meanings is highlighted. In this way, it stands as a constructive model for the student.

The CEFRL (2002) recognizes text as any sequence of speech (spoken or written) related to a specific field and that during the execution of a task constitutes the axis of a linguistic activity. From this idea, in the teaching-learning of reading in English serves a dual purpose of being the object of the instructional process and the means to carry out procedures to master other learning objects and phases of the process. This means that working with text pursues two objectives: teaching to read and reading to learn. It means, therefore, that the text has an integrative function by assuming the content to be learned and encouraging the development of the remaining language skills.

In English for professional purposes, both the communicative task and the text are expressed as closely related dimensions and find in the curricular strategy the propitious stage from which communication acts are taught and learned.

In relation to the English language curriculum strategy, Horruitiner (2006) identifies its validity from the interdisciplinary role it plays in contributing to the fulfillment of the objectives foreseen in the professional model, from the curriculum content of other subjects. Therefore, it is designed at the level of the entire curriculum, through a system of intentional, organized and regulated actions that are based on the establishment of interdisciplinary relationships aimed at achieving the proposed communicative goals.

The forms of implementation of the system of actions are diversified from the conception of the contents of the subjects for the management of bibliographic sources, according to the development of skills in the interpretation and translation of texts, search for information, the provision of specialized courses and workshops on general and occupational topics, the conduct of assessments or part thereof and the provision of teaching activities in English, the traditional process of self-management and information processing for the implementation of work practice, projects, course work and research.

The interdisciplinary basis of the strategy presupposes the involvement of the organizational levels in the methodological work of the in a joint effort involving students and teachers in the direction and execution of the system of actions that compose it, as an indispensable condition for its realization.

In general terms, the study reveals the existence of limitations in the teaching-learning process of English in the Electrical Engineering course at the University of Moa, the use of didactic procedures which do not favor communicative exchange in this specific context of professional performance.

The text is at the core of the language activity as a support or goal for the development of the intentional exercise towards the practice of English in the occupational context, so it must respond to the logic of the profession of the electrical engineer, from the acquisition of knowledge and the development of language skills. It was found that the teaching methods used, as a support for the process, do not favor an exercise of communication which actually responds to the training objectives set out in the Professional Model; with respect to the development of language use and management skills.

The communicative task reveals itself as a unit of learning activity representative of the real-life communication process in the professional sphere. Therefore, their design and implementation should be aimed at meeting the curricular objectives for which they were created. It was found that the current concept of exercise limits the interaction and productive development of the language in communication for professional purposes, so it is necessary to search for alternatives that enhance its development.

The English curriculum strategy is at the core of the process of teaching and learning English for career purposes. It was evident that the strategy needs to be scaled up with a systemic conception, in order to contribute to the link between learning and academic and professional activity and the practical use of language, in the exchange of information and in the updating of scientific and technical knowledge in the field of action of the electrician.

The teaching-learning process of English in relation to its career needs further study, based on inadequacies, needs, regularities and historical trends of communication in this language and their impact on the Electrical Engineering career at the University of Moa.

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### Conflict of interest

Authors declare no conflict of interests.

### Authors' contribution

The authors participated in the design and writing of the article, in the search and analysis of the information contained in the consulted bibliography.



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