

Independent study and technology education: Procedures for the professional education of teacher trainees

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Abstract

Objective: This article aims to illustrate the activities to be used to develop independent study through the use of technology, based on the professional training of the future teacher.

Method: The authors rely on theoretical methods and the systemization of experiences to collect the data herein presented.

Results: The main finding is a set of procedures for professional education of teacher trainees. The proposed activities are a constituent part of the main result of this inquiry.

Conclusion: The proposed activities allow the student to work independently with new technologies (mobile phones, tablets, laptops) outside the classroom while reaching a higher level of communicative competence since it favors the production of a varied and creative language through the application of interactive programs, which will favor the improvement of instruction and education processes.

Keywords: teacher education, educational technology, independent study, professional training.

Resumen

Objetivo: Este artículo está dirigido a la ejemplificación de actividades docentes posibles para el desarrollo del estudio independiente a partir del uso de las nuevas tecnologías en el marco de la formación inicial del profesor de inglés.

Métodos: para la recolección de los datos presentados, los autores se apoyaron en métodos teóricos, particularmente en la sistematización de experiencia

Resultados: El hallazgo fundamental es un sistema de procedimientos para la formación profesional del futuro profesor. Las actividades propuestas constituyen parte de estos resultados.

Conclusión: Las actividades propuestas permiten al estudiante en formación trabajar de forma independiente con las nuevas tecnologías (móviles, tabletas, laptops) y adquirir un mayor nivel de desarrollo de la competencia comunicativa, en tanto se favorece la expresión a través de programas interactivos en forma variada y creativa, lo que constituye una contribución a la consolidación de los procesos de instrucción y la educación.

Palabras clave: formación de docentes, tecnologías de la educación, estudio independiente, formación profesional.

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Introduction

The level of professional education attained by teacher trainees today is one of the questions receiving more attention in Higher Education. The graduates should meet the demands of transformations in each country's context. Currently, the advance of the scientific-technical revolution and its accelerated pace of development sets new challenges for teachers; therefore, they must be able to acquire the latest knowledge and develop new competencies independently. To achieve this goal, the ability to use information and communication technologies undoubtedly constitutes a component of teachers' education.

In this new scenario, learning a foreign language is inextricably linked to a new type of learning: technological learning, which will favor a successful development of the teaching-learning process of the foreign language. In this sense, Fernández, Núñez, & Romero (2012) state that "the multiple and complex functions that language teachers have to perform require that they be provided with the necessary and irreplaceable technical-professional dominion and sufficient critical capacity to enable them to for the solvent exercise of their profession" (p. 64).

Teacher training must include a comprehensive approach to information and communication technologies enabling students to solve problems associated with "research, management, innovation, training and evaluation, ethical and social responsibility, construction and dissemination of knowledge, as well as attention to ethical, legal, and environmental issues arising from the use of information and communication technologies in education" (Rodríguez, 2014, p. 6).

In this way, functional changes occur in the teaching-learning process of the foreign language student, resulting in a higher level of autonomy, responsibility, self-awareness, and self-

determination; increased self-confidence; a more active role in the environment and a more positive interrelation with others, which guarantees more effective self-regulation of their behavior in correspondence with the demands that society possesses.

This active and transforming process of the teacher in training during the learning of the language is nuanced by his personality, his goals, and experiences, which influence his reflections, the elaboration of projects, and their application in practice, which is an integral process in which professional skills necessarily intervene. These professional skills, in this new scenario, serve as procedures and strategies for the student for a more effective approach to knowledge of the world.

To work and develop professional skills in the new conditions of virtual teaching of the English language at the University, the authors of this work have relied on materials, methods, and procedures that have been previously prepared by the academic year staff, in correspondence with the cognitive needs, knowledge gaps, motivations and individual interests of each student for language learning.

The development of professional skills leads to the formative process of theoretical thinking that will favor operating with theoretical generalizations, with concepts and laws that allow determining the essence, establishing links and relationships, and applying knowledge to new situations. Hence, the tasks have to require the application of knowledge and the development of reflective thinking by linking specific content with new knowledge, finding the causes and consequences of a process or phenomenon, preparing summaries, by solving exercises in which prior knowledge is applied, by operating with models, symbols and schemes, by giving examples about a given topic.

Bearing in mind that foreign language learning takes place fundamentally in the classroom, it is the teachers who must provide students with varied and dissimilar contexts in which they can develop the aforementioned skills and at the same time put the language into practice. Hence, independent work outside the foreign language classroom facilitates the students' reencounter with the language they study in different conditions than those they have in their classroom and acquires, at the same time, greater significance, since it favors the process of teaching-learning of this is developed outside the linguistic environment.

In this way, it is essential to achieve an educational change that directly affects the transformations that must take place in teacher training, where the areas of integration in the study plans and the conception of new forms of English language learning at the University are highlighted, for which the teaching of foreign languages in the major assumes in its curriculum an approach aimed at cooperative teaching since although learning occurs in a subject, it occurs in a process of interaction with others, so has a social character, which implies, at the same time, a group learning in which each subject is personally committed and involved in a

cooperative, conscious, active and transforming process of reality and himself, in which he plays a leading role, and responsible for their learning and personal growth.

This important role of the teacher must be produced without manipulating the student, so he must mediate the negotiation between parties, setting the limits within which it is possible to decide freely and giving them the possibility to do so. To achieve this purpose, the teacher must make available to the student all his experience and most valuable information through the development of different learning strategies, complementary materials, pamphlets, study guides, etc. to be used by teams or workgroups previously organized according to the pedagogical diversity of the students, who assume commitments and responsibilities that "[...] instills the self-awareness that each member of the group participates in the execution of the entrusted task[...] to achieve the proposed objectives" (González, 2009, p.223).

It is here in context and group commitments where independent study demands the use of methods and procedures that, in turn, promote a level of productive and creative performance on the part of the students, which will result in the development of creativity, cognitive independence and the ability to think, act, reflect and value. Consequently, the authors of this paper have the objective of illustrating to teachers the activities to be used in the development of independent work in the English language lesson so that it has an efficient use based on the professional training of students from an approach that privileges the use of technology while highlighting the opportunities that it offers.

Methods

The systematization of experiences is assumed as a scientific method, which by its essence is qualitative, based on systematic didactic-methodological practice, and confirmed by observation as an empirical technique.

Searching and collecting data constitute a first step in which all the accumulated experience about the subject is documented, moving towards a more complete conceptualization from which essential categories of the process being studied are defined, which in turn, emerge as a more complete knowledge of science.

The proposal made has been experimentally introduced into practice in the lessons of Integrated English Practice, in the first year of the Foreign Languages (English) Major during the 2021 course at the University of Camagüey, constituting also a didactic material for the work of the aforementioned subject and is the result of the Major's Project (Methodology for the Professionalization of Initial Training in the English Language at the University of Camagüey).

Results and Discussion

The independent study will offer a solution to the development of the autonomy of the students since it will allow them to be more responsible about their learning, and at the same

time that it will favor the development of cooperative education. All of this will motivate them to learn the language since they will be able to create their product based on their experiences, both individually and collectively, in the use of technology by participating "[...] as active connoisseurs and critical agents, proficient users of these new scenarios and possibilities" (Abio, 2017, p. 46).

Independent work, in general, focuses on the achievement of independence, which in the pedagogical plane consists of the freedom to choose ways and means to develop cognitive tasks, that is, the ability to act on their own. For this reason, it is the methodological aspect that shows the cognitive independence of the student in the teaching-learning process and his professional approach will be specified "[...] to the extent that it is structured concerning the problems of professional performance, which enables the development of knowledge, skills and professional values [...]" (García, 2005, p.24).

In response to this new educational context in which we are inserted, learning goals have been established for the first year of the Foreign Languages (English) Major at the University of Camagüey, where the graded and conceptualized objectives for the territory are stated, as well as the requirements of the Common European Framework of Reference for Languages (Council of Europe, 2018). In this way, one of the main challenges emerges, which is given in achieving the necessary combination of these requirements with the objectives or goals of the profession, based on the professional profile of future language teachers.

To achieve the above, the learning goal is proposed in the first year of the Foreign Languages (English) Major at the University of Camagüey as follows:

Demonstrate development of communicative competence equivalent to level A2 of the aforementioned framework, by characterizing, describing, narrating events, facts, phenomena, places, people, and expressing opinions, as well as understanding and operating with short oral and written texts about familiar topics to it.

Among the advantages offered by the independent works designed for the subject Integrated English Practice in the first year of the Foreign Languages (English) Major, are the following:

- They expand the range of learning situations.
- They propitiate the change in the traditional development of the lesson which favors the increase of the motivation.
- They allow the role of the teacher to change from a formal instructor or facilitator to a member of the group, to achieve greater rapprochement between both parties.
- Promote increased communication between students and therefore decreases the role of the teacher in the lesson.

Independent works include activities where the use of new technologies is privileged, which allows reducing anxiety in students to achieve good results since it offers them different alternatives, according to their interests and abilities (Cabrera, 2012). Teachers must create favorable environments and provide them with methods and materials that correspond to the cognitive needs, motivation, and individual interests of each student in learning the language.

The activities that are privileged as part of this proposal are part of the educational strategy and the professional motivation strategy designed for the year where "[...] the productivity of a group is determined by the ability of its members to work as a team" (Reyes & Reyes, 2017, p.7).

It should be noted that for devising the activities, cooperative education techniques were taken into account and contextualized to the first year of the Foreign Languages (English) Major (Varas & Zariquiey, 2011, p.1), from which the following premises are assumed:

1. More open structures, independent and free from the supervision of the teaching staff.
2. With specific medium-long term goals (longer duration).
3. Broad and diverse cognitive processes.
4. Mastery of higher and more complex cooperative abilities and skills.
5. Multiple and diverse groups (pair, double pair, interactive groups, large group).

These independent works have three phases or stages for their development:

A first stage where a debate will be held about the topics that most interest them to develop. At this moment, suggestions, evaluations, and reflections will be made by the students.

Once the topics have been selected, there will be a type of negotiation between the students and the teacher to define the contents and objectives of their work, while predictions will be made about the language resources that allow the use of communicative strategies to develop the selected topic using a common and affordable language for students. The professor will supply a variety of formats that the works can have and the student will be the one he prefers. In the same way, it will provide them with complementary materials such as diagrams, cards, questionnaires, etc., which will help to collect, record, etc. the required information. Finally, the groups (teams) that will develop the different works will be formed.

In the second stage, the main task of the student is to collect all kinds of materials (interviews, videos, photos, posters, pamphlets, etc.) and prepare all the information for its subsequent organization. These independent assignments will promote cooperative education and facilitate the use of interactive situations. At the same time, it will help students to extend and reinforce the skills acquired during the lesson and put them into practice in real-life situations.

In this third stage, the teacher must control the fulfillment of all the stages. This first review or check should be done immediately after students have started their homework. The teacher will

control each group and will be able to ensure the progress of the work in each case, which he will continue to do by checking activities in the class related to the work.

Once the students have collected all the necessary information, they will present a draft of the final result, which will be examined by the teacher to finally carry out a group debate between both parties about how the work will be presented.

The creation of groups made up of students with varying skill levels does not prevent group work from achieving learning as a whole, promoting interaction with moments for individual and group work. There are several well-established and well-known learning strategies in the literature that support the achievement of true cooperative learning. (Loor-Salmon, 2018)

Suggested activities:

- Form heterogeneous groups of students (4 or 5) to carry out the tasks.
- Prepare research instruments (interviews) to learn about the topic to be investigated (museums, landscapes in the city, celebrities of the city and the country, etc.).
- Make videos during visits to museums, historical centers, or outstanding personalities of your province. These videos include exhibitions of places that are world heritage sites, as well as interviews with personalities from culture or education in the province or country, such as Luis Álvarez, Nazario Salazar, Martha Jiménez, etc.
- Consult the digital materials assigned by the subject Integrated English Practice on the subject to be investigated.
- Monitor the preparation by students and teams of their interventions to present their results in the group.
- Prepare a portfolio with all the evidence collected and the results of the activities. The images can be displayed as works on the major's website as well as incorporated into the virtual classroom of the subject.
- Record a tour of the chosen place (explaining that tour in English) for example: describe places such as "Ignacio Agramonte's birthplace", "Nicolas Guillén's house", among others.
- Publish the final result in the virtual classroom of the subject and the Web page of the major.
- Develop experiences of self-assessment and practical cooperative education.
- Stimulate metacognitive control and the transition towards self-regulation in the execution of operations to build, perform, listen/read and interpret speech.

Below is an example showing the proposed activities.

Select a place/celebrity of your community/city and be ready to develop the following tasks:

Interview an important personality (culture /education) and be ready to:

- Prepare a video about your research work (use your smart telephone/ laptop, tablet).

- Describe the interviewed person (physically and personality traits) and the visited place (use the video to support your exposition).
- Identify relevant information about the interviewed person/place.
- State your own opinion about the professional life of the interviewed person based on your own experiences.
- Present your video to the rest of the class and include the material in the virtual class of the subject and the Website of your career.
- Compare your self-ratings with the ratings of your group mates.
- Discuss your learning experiences and reflect on the performance of group members in terms of their achievement levels, work habits, and ability to assist others.
- Evaluate the final group projects to determine which is the most original and which the best overall is.

Conclusions

The development of independent work in the English language class fosters a better link with the reality of our students while developing the skills they have acquired independently in the field of information technology and communications, which constitutes an essential and fundamental part of the teacher training process and also implies the search by the teacher for methods, procedures and learning strategies, which will result in the development of professional skills.

The proposed activities allow the student to work independently with new technologies (mobile phones, tablets, laptops) outside the classroom while reaching a higher level of communicative competence since it favors the production of a varied and creative language through the application of interactive programs, which will favor the improvement of instruction and education processes.

The proposed activities allow the development of experiences of self-assessment and practical cooperative education while offering the theoretical and practical bases necessary for teachers to get involved in new virtual teaching scenarios fostered by computer and communication technologies.

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