

***Project-based learning in Translation education: methodological implications at the University of Holguín******La enseñanza basada en proyectos para la formación de traductores: implicaciones metodológicas en la Universidad de Holguín******O Ensino com base em projetos para a formação de tradutores: implicações metodológicas na Universidade de Holguín***<sup>1</sup>Rebeca Torres-Serrano\*<sup>2</sup>Vilma Páez-Pérez<sup>3</sup>Julio César Rodríguez-Peña<sup>1</sup>University of Holguín. Cuba. ORCID: <https://orcid.org/0000-0002-3204-963X><sup>2</sup>University of Holguín. Cuba. ORCID: <https://orcid.org/0000-0001-7761-165X><sup>3</sup>University of Holguín. Cuba. ORCID: <https://orcid.org/0000-0001-5492-5154>\*Autor para la correspondencia: [rserrano@uho.edu.cu](mailto:rserrano@uho.edu.cu)**Abstract**

The project-based learning approach is a teaching method in which students develop competences through professional experiences. It is a quite useful method to develop basic and professional competences, which has proven its relevance to translation and interpretation education through the years. This article aims at depicting the results of the PhD research entitled "The development of the cognitive competence as a necessary axe for translators and interpreters' education at the University of Holguín", that places the project-based learning approach as an integrative methodology to develop basic and professional competences in translators and interpreters' education. Integration is a key category to the research not only within the teaching methodology but also within the research methods: theoretical, empirical and statistical. The translation project as an integrative methodology in Translation Education is corroborated in a case study that accounts for the professional growth of the participants.

**Key words:** project-based learning; translation education; professional competences; cognitive competence; translation competence

**Resumen**

El enfoque de aprendizaje basado en proyectos es un método de enseñanza en el que los estudiantes desarrollan competencias a través de experiencias profesionales. Se trata de un método extremadamente útil para desarrollar competencias básicas y profesionales, que ha demostrado su relevancia en la enseñanza de la traducción y la interpretación a lo largo de los años. El presente artículo tiene como objetivo exponer los resultados de la investigación doctoral titulada "El desarrollo de la competencia cognitiva como eje necesario para la formación de traductores e intérpretes en la Universidad de Holguín". La categoría integración es esencial no solo para el desarrollo de la metodología del enfoque de aprendizaje sino para establecer la sinergia de los métodos investigativos: teórico, empírico y estadístico. En este artículo se presenta el proyecto de traducción como metodología integradora en la formación de traductores e intérpretes, corroborado en un estudio de caso que evidencia el crecimiento profesional de los participantes.

**Palabras clave:** aprendizaje basado en proyectos; formación de traductores; competencias profesionales; competencia cognitiva; competencia traductora

**Resumo**

A abordagem de aprendizagem baseada em projetos é um método de ensino em que os estudantes desenvolvem competências através de experiências profissionais. É um método extremamente útil para o desenvolvimento de competências básicas e profissionais, que tem provado a sua relevância no ensino da tradução e da interpretação ao longo dos anos. O objetivo deste artigo é apresentar os resultados da investigação de doutoramento intitulada "O desenvolvimento da competência cognitiva como eixo necessário para a formação de tradutores e intérpretes na Universidade de Holguín". A integração da categoria é essencial não só para o desenvolvimento da metodologia da

abordagem da aprendizagem, mas também para estabelecer a sinergia dos métodos de investigação: teórica, empírica e estatística. Este artigo apresenta o projeto de tradução como uma metodologia integradora na formação de tradutores e intérpretes, corroborada num estudo de caso que mostra o crescimento profissional dos participantes.

**Palavras-chave:** aprendizagem baseada em projetos; educação de tradução; competências profissionais; competência cognitiva; competência de tradução

## **Introduction**

Translators and interpreters are linguistic and cultural mediators that are in high demand in the international market in every social sphere one can imagine. These professionals have the responsibility of building communication bridges between the diversity of peoples and cultures of the world. Consequently, the educational programs to train them must meet the international standards to graduate highly-qualified and competent professionals.

Translation and interpretation didactics focus on the particularities of the teaching-learning process of translators and interpreters and provide a guide to efficiently prepare them to grow professionally.

In Cuba, Translation and Interpretation education is part of the majors in foreign languages since 1976, after the creation of the Ministry of Higher Education. Translation and interpretation curricular design has evolved in accordance to the socio-historical evolution of Cuban society; however, it does not quite meet the needs and demands for training the most competent professionals. Therefore, there is an ongoing need for research in translation and interpretation didactics to improve its teaching-learning process.

One of the difficulties found in the Ph. D research already mentioned related to the role of the cognitive competence as a transversal axe to develop translation competence in the training of translators and interpreters at the University of Holguin, is that the methodological approach of translation and interpretation professors does not include the competence-based approach, which is considered relevant to a discipline like Translation and Interpretation, which is an essential part of the professional training of students. There is also a tendency towards a more traditional, linguistic emphasized, teacher-centered approach, disregarding other methodologies that would be more effective to the training and education of translators and interpreters.

This paper focuses on the teaching-learning process of translation and interpretation at the University of Holguin where a more traditional teacher-centered learning process has been observed. The aim of the paper is to corroborate the positive impact on translation students of the project-based learning approach, which is considered to be student-entered and allows them to experience situated and competence-based learning in the context of socio-constructivism.

The project-based approach also has a strong influence in the development of the cognitive competence as the basis to construct knowledge and develop skills, attitudes and values that constitute the translation competence as the professional competence students must foster. The mean to

corroborate the relevance of this approach as a transformational one, that provides a competence-development and a professional growth environment for students is the translation project *Femmes en situations professionnelles, expériences cubaines et canadiennes*. It consists on the translation of a book that comprises several articles written by professional women from Cuba and Canada.

This translation project allowed to put into practice the project-based learning approach, the proposed practical contribution of a PhD research in progress, conducted by the main author of this paper, about the development of the cognitive competence as a necessary axe for fostering the translation competence in the translation and interpretation classroom. The translation project presented itself as the perfect opportunity for the researcher, professor of translation and interpretation, to lead a team of three 5th year students of the English language major with a minor in French and three students recently graduated translators and interpreters that carry out its training as teachers at the English Language Department of the University of Holguin. This project also allowed the teacher to play the role of facilitator and to put into practice the project-based learning approach as an integrative methodology and didactic strategy to develop the cognitive competence in its three dimensions: cognitive, metacognitive and emotional-affective. A case study was conducted to examine the whole process and account for the professional growth of the participants.

### **Materials and methods**

The research was carried out on the foundations of three types of methods: theoretical, empirical and statistical. In the theoretical order several methods were used such as the historical-logic, the induction-deduction, the concrete and abstract and the analysis and synthesis. All of these methods were interconnected within the holistic integrative approach allowing to regard the development of the translation competence as a macro competence, a complex and ongoing process that includes a great number of competences in whose integration we find the success of the professional competence development within the individual. This is a method in consonance with the complexity theory, which revolves around complex thinking.

In the empirical order the research found its way through documentary analysis, used to review the literature related to the object and field of study of the research, the foundations of Translation studies, the main approaches to the didactics of translation and interpretation, didactic methods among others. The scientific observation, the surveys and interviews served as a mean of knowing the state of art of competence-based approach in translators and interpreter's education and as mean of triangulating the assessment of such competences in students all along the research process. All of these methods are included in the case study carried out of a group's dynamics in different translation contexts always involving real, simulated and hybrid translation projects.

## **Results and discussion**

Translation didactics has been a matter of discussion mainly from the second half of the 20th century when the profession gained visibility after World War II with the Nuremberg trials and the continuing Industrial revolution that demanded globalized social exchange to successfully accomplish social processes. The teaching of translation and interpretation has always been linked to higher education institutions. The ways in which translation and interpretation are taught have evolved according to the different Translation studies approaches (linguistic, communicative or socio-linguistic, psycholinguistic or cognitive and text-oriented). Nonetheless, as Kelly (2002) referred, common ground has not yet been found when referring to pedagogical criteria for the teaching-learning process.

When dealing with the approaches to the didactics of translation and interpretation, two main viewpoints should always be considered, each fitting different approaches. As Gonzales (2004) and Hurtado (2019) have identified:

Teacher-centered and product-oriented transmissionist approaches

- Traditional translation teaching
- Contrastive approaches
- Focus on theoretical content

Student-centered and process-oriented approaches

- Focus on the translation process
- Objective-based training
- Translation task and project-based approach
- Social-constructivist approach
- Competence-based training
- Focus on professional aspects. Situated learning

The research is founded on the student-centered and process-oriented approaches, acknowledging the importance of allowing students' personality to develop in accordance with gaining autonomy, developing critical and creative thinking, learning to cope with negative emotions and stress and building their own work method in an appropriate learning environment. By appropriate we mean a natural environment to develop the professional and personal competences that will secure a successful performance in professional contexts and the expertise achievement.

The project-based learning is an approach that permits the integration of every student-centered and process-oriented approaches such as competence-based training, the focus on professional aspects

with situated learning and the social constructivist approach. “Translation, in any of its modalities, involves a myriad cognitive process” (García, 2015, p.9).

Several authors have agreed to the complexity of the translation process, which must be taken into account in the teaching of translation. When dealing with such complexity it is of great importance to make reference to social constructivism and the construction of knowledge in a social environment, collectively and not individually. Such construction is deeply rooted in the relation established between the perceptions of an individual and what is around them: cultural, social and environmental context. According to Hosseini, Tajvidi & Kerremans (2019) social constructivism downplays the mental construction of meaning and focuses on its intersubjective nature.

The Social Constructivist approach in Translator Education which Kiraly enhanced in the 2000s draws on the work of Vygotsky, Piaget, and Dewey, and assumes a collaborative approach to translator training where the focus is on “students’ self-concept and their socialization into professional community of translators [...] through authentic translation practices” (Kelly, 2014, p. 18). In Kiraly’s work of that sociohistorical moment learning can be best accomplished by means of meaningful interaction with peers, with members of the translation and interpretation community, which is the one learners are interested in being part of. [...] it would be much more constructive to start each pedagogical event with a highly realistic, and if possible genuine, translation project” (Kiraly, 2000, p. 60).

This assumption of Kiraly (2000, 2015) about the relevance of the translation project to educate committed and competent translators is based on the basic principles of the social-constructivist education, which are as follows, in the words of Kiraly (2000), later enriched by Hosseini, Tajvidi & Kerremans (2019)

1. Multiple Realities/ Perspectives: Individuals understand the world from their own perspective which can then grow and change in negotiation with multiple realities perceived by other individuals. This principle encourages the exchange of perspectives among teachers, students, and professionals of the field which is a mutually beneficial process.
2. Collaborative Learning: Social interaction between teacher and students in the process of learning leads to their cognitive development and high levels of educational achievement. This also increases learners’ motivation and their self-esteem.
3. Appropriation: Being closely associated with the two principles mentioned, appropriation refers to a learner’s dialogue with his/her socio-cultural environment. This is a reciprocal process where teachers also appropriate students’ multiple perspectives to promote their teaching.

4. The Zone of Proximal Development (ZDP): This is the level where learners need adequate assistance or instruction to accomplish a given task. Based on this principle, in order to construct new knowledge, students need the presence and the help of others like peers or teachers.

5. Situated/ Authentic Learning: Professional translation skills are best achieved when they are learned collaboratively under the guidance of a professional translator and embedded in an authentic situation. In order to achieve optimal learning outcomes, tasks should be embedded in and related to the real-world context of human activity with all its complexity.

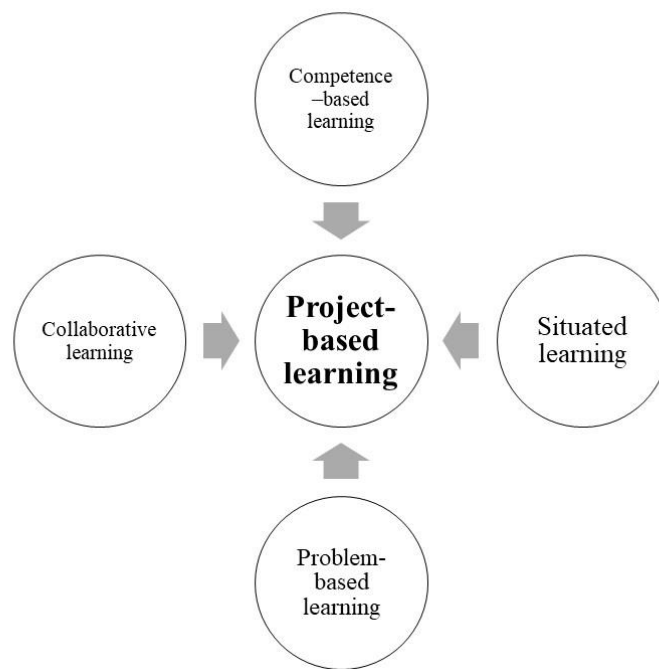
6. Viability: Closely related to the first principle, viability refers to the evolving nature of human understanding and the finite functionality of our mental models. Learning is thus considered as a dynamic process where our mental models are refined and co-extended with living.

7. Scaffolding: Implying learners' ZDP, this principle refers to the level of teacher support and intervention needed for accomplishing a task. This is a type of teacher-student interaction where the former places helpful signposts on the path for the latter to progress autonomously from novice to expert behavior and gradually develop self-monitoring and correction skills.

8. Socio-cognitive Apprenticeship: Incorporating the concept of situated learning, this principle refers to the process of students' acculturation into authentic activities through social interaction with professionals. This leads to learners' ability to monitor their progress towards mastery and refine this process autonomously and independently.

9. Transformation and the Development of Translator Competence: Developing students' professional self-concept requires looking at translator competence as a creative and socially constructed set of skills developed by individually tailored tools. It is thus the instructor's job not to give students the rarely existed correct interpretations, but to assist them in the collaborative negotiation of meaning, taking into consideration the communicative situations in which texts/discourses are produced.

These foundations explain the integration of the four approaches that merge in the project-based learning approach as an integrative methodology that proves its efficacy to Translators Education. All of these permits to determining the project-based learning approach as a student-centered pedagogy that provides students an active exploration of real-world challenges and problems. This approach also facilitates the integration of other significant approaches to conduct the teaching-learning process in a way that fits the requirements to co-construct knowledge and develop skills, attitudes and values in a given context in a collaborative way (figure 1).



**Figure 1**

Project-based learning as an integrative methodology

Note: The figure shows the methods' interrelation within Project-based learning. Source: Torres Serrano (2022)

The translation project is an approach that provides the opportunity to display an organizational culture similar to the one experienced in the real translation market as referred to by Kiraly (2005, 2012, 2015). When dealing with a translation project one is putting into practice four different yet interrelated approaches to successfully achieve the task. The translation project establishes a translation task that takes into account: translation as a decision-making and problem-solving activity (problem-based learning) with a series of cognitive, metacognitive and affective problems that need to be solved in order to develop the professional and basic competences (competence-based learning). It also presents a task that needs teamwork to be solved, each member of the team will have a specific assignment and will always join forces with the rest to provide feedback and cooperate to achieve the final result (collaborative learning). The other approach will be integrated by means of a simulated, hybrid or real translation project (situated learning). In the case study that is presented here the authors worked with a real translation project.

### Case study

The article presents a case study of the development of the cognitive competence as a transversal axe to the development of translation competence during the translation process of the Translation project *Femmes en situations professionnelles, expériences cubaines et canadiennes*. This case study is a

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depiction of project-based learning in the integration of situated, competence-based, problem-based and collaborative learning. Its main objective is to prove the relevance of such blended approach to develop cognitive competence in the context of translation competence development.

For all the members of the team it was their first time working in a real translation project and for the facilitator it was also the first time assuming the role of team leader and facilitator. The case study was conducted by means of participant scientific observation and portfolio. The researchers established the problematic of the difficulties found in the development of cognitive, metacognitive and emotional-affective dimensions in students' thought (cognitive competence) and its negative influence in their translation process. The team manager and facilitator chose three senior year students of the English language major with a minor in French and three students recently graduated translators and interpreters that carry out its training as teachers at the English Language Department of the University of Holguin.

Stages of the Project:

- Contextualization

The coordinator of the project presented it for the team members. She explained the project consisted in the translation of a book entitled *Women in professional situation: Cuban and Canadian experiences*, a book that had not been published yet in any language and since it was a collaboration between Cuban and Canadian women, the goal was to translate the texts written in French to Spanish and the ones written in Spanish to French, so the book would be accessible to both audiences, Spanish and French speakers.

The book has twelve scientific articles with approximately 15-20 pages each, seven articles in French from Canadian authors to be translated into Spanish (direct translation) and five in Spanish from Cuban authors to be translated into French (reverse translation).

The deadline to deliver the translation was set in a month and a half after the delivery of the texts.

- *Identification of previous knowledge*

The author prepared an instrument to identify if students and new translators and interpreters showed previous competences, focusing on the difficulties they might have so that the work during the project would have a positive impact on them and develop such competences to a higher level.

The results are the ones that follow table:

(Table 1)

DIMENSIONS	Cognitive	Metacognitive	Emotional-affective
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<p>-Difficulties in the analysis and synthesis of the information in the source language to apprehend the sense.</p> <p>- Difficulties in the use of declarative knowledge (bilingual, extralinguistic, and theoretical) to understand, reformulate and reexpress the message</p> <p>-Difficulties in the use of procedural knowledge (strategic) to make decisions and solve translation problems.</p> <p>- Difficulties in the use of procedural knowledge (instrumental) to carry out the translation of the text efficiently.</p> <p>-Difficulties in providing creative solutions to cognitive, metacognitive and emotional-affective translation problems.</p>	<p>-Difficulties in the planning and evaluation of the translation process.</p> <p>-Difficulties in the self-regulation of declarative and procedural knowledge to conduct the translation process effectively.</p> <p>-Difficulties in the development of their self-consciousness (self-perception and self-efficacy) as translators.</p>	<p>-Difficulties in establishing a favorable relation with their environment (mainly stress management,) that did not allow them to conduct the translation process effectively.</p>
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- *Framework of professional and formative relations*

For project work, it is essential to establish work guidelines. In this case, basic working rules were agreed with the translators for the development of the project. This is essential to guarantee an active and motivated participation of the students in the project.

The participants agreed on how they would work:

- The creation of a WhatsApp group to maintain communication at all times
- The CAT<sup>1</sup> tool to use: OmegaT and how to use it
- The regularity for face-to-face meetings and work feedback: twice a week

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<sup>1</sup> Computer-assisted translation (CAT) is translation software which can help translators translate faster and improve their work.

-The proposal to the clients of writing the conclusions of the book regarding their personal and professional experiences during the translation process

-The ways of contacting the client for consultation purposes: the coordinator would mediate between the client and the authors of the articles

-The stylistic guidelines for the target text

- *Facilitating teamwork*

The basis of a project is teamwork. Facilitating this work allows to generate favorable conditions for the development of competencies through collaborative work (from the zone of proximal development).

- The establishment of responsibilities for each team member and make a work plan. All this in co-construction with the team members.

- The encouragement of the construction of a shared vision, open debate, respect for differences, objectivity in decision-making.

- *Co-construction of the translation process*

After contextualizing, diagnosing, creating the work framework and facilitating teamwork, we proceeded to the co-construction of the translation process that would take place during the project, which is the essence of the integrative methodological procedure. This design is made taking into account the stages of the translation process and the type of project, in this case, real. The work time, pedagogical, personal and professional objectives are taken into account.

- Establish the steps to take in every stage of the process (sources to consult for the preparation, linguistic, writing perfecting and revision, reading in the source and target language, do some research on the authors of the articles, plan the whole process in term of cognitive, metacognitive and emotional-affective strategies, etc.)

- To co-construct the process in such a way that this activity contributes to form a certain level of contents of the elements of cognitive competence through the development of situated cognition and collaborative work.

- Pursue that the activities formulated in the process contribute to develop cognitive competence and translating competence as a macro-competence, taking into account the elements of competence (performance criteria, essential knowledge, range of application and required evidences).

- *Evaluation of the translation process within the project*

The evaluation of the translation project is essential to know to what extent the general objective and specific objectives were met. Whether the students developed the competences according to the

planning and co-construction of the process for the project. In this last stage of the project, we counted with the three components of evaluation and afterwards the feedback from the whole process.

The scientific observation was participant and took place during the face-to-face meetings as well as during the online exchange. The main aspects to be considered where the development of cognitive competence in the context of a real translation work experience to corroborate the relevance of the project-based learning approach to translation education at the University of Holguin.

The progress in the development of the three dimensions of cognitive competence was evaluated. First, depicting how it was at the beginning of the project and the evolution it experienced through the whole process. Then, the distinctions in cognitive efforts needed to translate between direct and inverse translation were taken into account. The cognitive effort put into inverse translation was even bigger due to the lack of development in the declarative and procedural knowledge, mainly bilingual and intercultural.

(Table 2)

<b>DIMENSIONS</b>	<i>Cognitive</i>	<i>Metacognitive</i>	<i>Emotional-affective</i>
	-Better apprehension of the sense by means of information analysis and synthesis. -Progress in the use of declarative and procedural knowledge to translate accurately and solve translation problems. - Enhancement of creativity to solve cognitive, metacognitive and emotional affective translation problems.	-Better planning and evaluation of the translation process. - Boost of declarative and procedural knowledge's self-regulation. - Improvement in the development of their translation's self-consciousness (self-perception and self-efficacy).	-Better relation with the environment (stress management, teamwork)

The portfolios delivered by the translators validated the data collected with the scientific observation. The 100 % of the sample claimed that in spite of the study of the discipline Translation and Interpretation for three years in the major, professional practices included, they never worked in a project like this before. At the beginning they were hesitant, lacking self-confidence to participate in a project with a deadline and with professional requirements.

The participants felt that they lacked the necessary competences to perform efficiently in a translation project. They stated they were not highly qualified to do the job, mainly when dealing with technology (the use of CAT tools), with the particularities of French as their second foreign language, with intercultural aspects, with stress management due to the deadline. They were also really attached to

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the linguistic approach and their translation drafts were a bit too literal, aligned with the syntactic structures of the source language.

All the above mentioned was at the early stage of the project. As the project progressed so the participants did. At the final stage of the project, after the delivery of the work, participants described their evolution. Their thinking evolved; they were able to grasp the sense from the information in the source text to provide faithful yet pragmatic translations. They developed tools to create accurate strategies to solve all kinds of translation problems. They were able to manage stress and feel more relaxed towards the final stage of the project. They learned to work as a team, to construct knowledge in collaboration. Their self-perception and self-efficacy as translators increased and they were more aware of their translation process.

According to the clients, the texts were faithful to the original ones, in the integrations of the different translation approaches (linguistic, textual, communicative or sociocultural and cognitive or psycholinguistic). Hence, the communicative intention was achieved, which was to have both audiences (French and Spanish speaking) interested in the topic and reflecting upon it to improve their practices towards the situation of women in professional environments. The team work was so effective that there was a parallelism in the structure and style of the texts. They also displayed an ethical behaviour concerning the delivery in time of the translation assignment and the team dynamics and interrelations between them and in the social scenarios where the book was presented. The clients stated their desire to work again with the team and proposed another translation project related to the same field of research. The recommendations had to do with the study for further use of the inclusive language and the appropriation of cultural knowledge of the target culture.

According to the data collected, the researchers were able to corroborate the efficacy of the project-based learning approach in translation education. The case study confirmed it is necessary to incorporate this kind of approach into the teaching-learning process of translation and interpretation in Translator's education. The fact that the project-based learning encompasses problem-solving, collaborative and competence-based learning fosters situated cognition and allows individuals to construct knowledge through their interactions with its environment. As stated by Haro-Soler (2018) and Haro-Soler & Kiraly (2019) it is essential to identify approaches to teaching and learning that will allow translator educators to enhance the development of their students' self-efficacy beliefs, among other self-perceptions, this was greatly achieved within the project. It also encouraged the development of the translation competence as a macro professional competence translators must develop fully and the cognitive competence as a transversal axe that contributes to such development. The cognitive competence as the "processing of information in the integration of the cognitive, metacognitive and emotional-affective dimensions, in the activation and regulation of intellectual

processes and mechanisms that allow understanding, evaluating and generating information, making decisions and solving problems in the translator's and interpreter's professional performance sphere” (Torres Serrano, 2022) allows the correct development of the translation competence as “the macro-competence that is defined as a complex structure of attributes necessary for the competent performance of translators and interpreters during the translation/interpretation process. It is a complex conjunction of attributes (knowledge, skills, attitudes and values), which from a holistic perspective of integration allow the translator/interpreter to efficiently perform a translation or interpreting assignment.” (Torres Serrano, 2022)

The project-based approach sets the perfect environment for translators-to-be to start constructing knowledge and developing skills, attitudes and values that will enhance their professional performance and allow them to achieve expertise. It is a highly recommended approach to be put into practice in translation education in Cuba, specifically at the University of Holguin, to accomplish a curricular design closer to the needs and demands of society.

## **Conclusions**

It is important to state the relevance of the cognitive competence composed by three dimensions (cognitive, metacognitive and emotional-affective) that are closely related. They have a synergistic and holistic relationship that allows the development of cognitive competence as a transversal axe for the development of translation macro competence. These three dimensions are considered a dialectical unit and must be developed in their integration during the teaching-learning process of translation and interpreting.

The integration category is of most relevance for this research and its theoretical and practical contribution. At all times it is present when dealing with didactic and theoretical approaches from all sciences (pedagogy, psychology, linguistics, sociology, translation studies, didactics, and so on). The integration category is what allows to take the best of each method and approach to merge it and build something if not better, at least efficient and practical. During the research being carried out, including this case study, integration has been the key to develop the competences the authors planned to develop in order to ameliorate the curricular design and translator’s education.

Taken into consideration the case study carried out and described in this paper is accurate to state that project-based learning is an approach that permits the integration of other important approaches to improve translation education. It is an approach that fits present-day curricular demands to train competent translators and interpreters. The case study corroborated the relevance of project-based learning to the context of translation teaching-learning process at the University of Holguin. The case

*Project-based learning in Translation education: methodological implications at the University of Holguín/La enseñanza basada en proyectos para la formación de traductores: implicaciones metodológicas en la Universidad de Holguín/ O Ensino com base em projetos para a formação de tradutores: implicações metodológicas na Universidade de Holguín* study allowed to account for the participants' professional and educational growth. It is highly recommended to conduct more research on this topic and to include this teaching approach gradually in the curricular design for the teaching of translation and interpretation in the Cuban setting.

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## Conflict of interests

The authors declare that does not exist an interest conflict

**Authorship Contribution Statement**

Rebeca Torres-Serrano: Conceptualization, Research, Methodology, Project Administration, Validation, Original Writing.

Vilma Páez-Pérez: Research, data curation, formal analysis, supervision.

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