

Development of Literary Competence Through a Semiotic Approach and Technological Resources

Sayra Astrid Sujei Perez Reategui^{1,*}, Kelita Ytamar Rodríguez Rojase¹, Osmer A. Campos-Ugaz¹ & Ronald M. Hernández², Miguel A. Saavedra-Lopez³, Heriberto Solis Sosa¹ & Lizzeth A. Garcia Flores¹

¹Universidad Católica Santo Toribio de Mogrovejo, Chiclayo, Perú

²Universidad Privada Norbert Wiener, Lima, Perú

³Universidad Continental, Cusco, Perú

*Correspondence: Universidad Católica Santo Toribio de Mogrovejo, Chiclayo, Perú. E-mail: sayra.perez@usat.pe

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Abstract

Currently, literary competence is scarcely addressed in secondary education teaching. Therefore, the objective of this study was to design a didactic proposal to improve literary competence through a semiotic approach and technological resources in secondary school students of an educational center located in the city of Lambayeque. The research was quantitative, non-experimental and descriptive-propositive design. The instrument used was the "Likert scale to evaluate literary competence", which was applied to a sample of 32 fifth grade students, selected by non-probabilistic sampling. As a result, it was obtained that the students presented low levels of achievement, since 100% of them only evidenced beginning processes. In response to this problem, a didactic proposal for the comprehension and production of narrative discourse was designed and validated from a semiotic perspective using ICT resources. We conclude on the importance of the contributions in the area of communication, which can integrate didactics with technology, contributing to the pedagogical processes for current generations and educational systems of the globalized world.

Keywords: literary analysis, secondary education, semiotics, writing, information technology

1. Introduction

Although literature is an important tool in the academic and personal formation of human beings, the truth is that currently few secondary education students are interested in reading and producing literary texts. Most students do not develop the habit of reading and, the few times they do, they read superficially without stopping to understand the background of the text (Ministry of Education and Vocational Training, 2019). This rejection is complemented by the insufficient and inadequate way of approaching literature in the classroom, prioritizing the historicist approach, or relegating literature to the background (Cáceres, 2022). These circumstances prevent the proper development of literary competence (LC), defined as the mastery of a set of knowledge, skills and strategies necessary to understand and produce literary texts (Eco, 1993; Mendoza, 2001; Acosta-Gómez et al., 2020).

It should be noted that, up to now, CL has been scarcely studied, as there are no specific studies on its current state. However, there is research on reading and writing that reveals the difficulty in understanding and producing texts, including literary texts. At the international level, the Program for International Student Assessment (PISA, 2018) test stands out, which indicates that more than half of the participants are placed below the basic level of reading comprehension (Ministry of Education [MINEDU], 2018). Similarly, the Regional Comparative and Explanatory Study (ERCE, 2019) found that 69% of Latin American students in the sixth grade of primary school showed insufficient reading comprehension (Laboratorio Latinoamericano de Evaluación de la Calidad Educativa [LLECE], 2021). In writing, better results were obtained, but the discursive dimension of the text still needs to be reinforced (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2022).

At the national level, literary competence is not considered as such in the National Curriculum for Basic Education (MINEDU, 2016), but is implicitly included in the competencies related to reading and writing, in which other types of texts are emphasized, and literary texts often remain in second place. In addition, the results obtained by students

in both competencies are unfavorable, only 15% of students possess a satisfactory level of reading (MINEDU, 2019), and more than 75% manifest a deficient written competence (MINEDU, 2018). Similarly, at the regional level, less than 20% of Lambayecan students reach the expected level of achievement in text comprehension (MINEDU, 2019). In short, a high percentage of students who complete lower secondary school do not efficiently develop their reading and writing skills.

Specifically, in an educational institution located in the city of Lambayeque, where the present study was conducted, it was observed that students in the fifth grade of secondary education have limitations both in the comprehension and production of literary discourse. Although the causes are diverse and derive both from the family and social context of the student, the main one is related to the didactic methodologies used in the educational context. Among them is the predominance of a purely formal approach to literature. In other words, the biography and historicity of the authors are mostly taken into account and the interpretation, in relation to culture and society, is neglected in order to discover the meaning and sense of the content of the texts.

In this regard, the objective of this article is to provide a didactic program to develop literary competence through a semiotic approach and technological resources, aimed at students in the fifth grade of secondary education in a public school in Lambayeque. For this, it is necessary to have an initial diagnosis that allows knowing the difficulties of the students and that should be addressed throughout the program. Therefore, the study is of utmost importance because it aims to reverse an educational problem, positively influencing the personal and academic education of students through the development of analytical skills, critical interpretation and literary production. To achieve this, non-experimental quantitative research with a descriptive-propositive design will be used. Since, first the current state of CL in the study sample will be measured and then the proposed solution to the identified problems will be elaborated.

Therefore, first, relevant theories and notions related to literary competence and the semiotic approach are systematized in order to establish the theoretical and scientific foundations of the present study. Second, the methods, techniques and instruments used in the research are detailed. Thirdly, the most relevant results are presented, both in the diagnostic phase and in the propositional phase (contribution), and are discussed in relation to the theoretical-scientific bases in order to, finally, establish the conclusions.

1.1 Literary Competition

Literary competence goes beyond the accumulation of literary knowledge such as literary currents, authors and works. It is understood as a complex competence that involves capacities, skills and knowledge that allow an adequate relationship between the reader, the text and the context to decipher its content, critically evaluate it and enjoy its reading (Tiza et al., 2016; Cáceres, 2022). Therefore, it is about the ability to read, understand, interpret and value literary texts, developing creativity and aesthetic sensitivity, in addition to the ability to elaborate literary texts orally or in writing (Álvarez-Álvarez & Vejo-Sainz 2017). Following this line, CL involves the relationship between linguistic, cognitive, communicative and sociocultural aspects to understand and produce meanings. Therefore, it is integrated by two interdependent dimensions: comprehension and discursive production.

On the one hand, the comprehension of literary discourse comprises certain cognitive operations such as the analysis, interpretation and evaluation of the text considering conceptual, procedural and attitudinal aspects during the reading process (Bahanondes, 2015). The first aspect involves knowledge such as mastery of linguistic, literary, metaliterary codes and knowledge of the sociocultural context that frames and gives meaning to the text (Domínguez & Rojas, 2020). The second is linked to the use of reading strategies and metacognitive activity. Finally, the third involves the reader's willingness to read the literary work attentively, using various mechanisms to reconstruct its meaning and sense, which will produce the so-called literary (aesthetic) enjoyment.

On the other hand, literary discursive production consists of the creation or recreation of meanings and senses through the linguistic-literary code (Ramírez, 2021; Salazar, 2020). Like any act of textual production, it involves following a certain process to ensure that the text fulfills the communicative intention. According to the Didactext Writing Model, writing is an activity that takes place in a given sociocultural context and communicative situation, through a set of cognitive processes and characteristics of the individual writer.

From this perspective, the writing process consists of six recursive phases: access to knowledge, planning, writing, revision and rewriting, editing and oral presentation. In each of these, cognitive and metacognitive processes are developed (Didactics of Writing [G. D.], 2016). Also, the literary product, like any communicative text, must obey certain rules of textuality (Beaugrande & Dressler, 1997). These include: cohesion, the relationship between the elements of the textual surface; coherence, linked to the overall logical sense of the text; intertextuality, understood

as the dependence of the text on others; and appropriateness, which requires that the text be in accordance with the demands of the purpose and the communicative situation.

Taking into account the aspects addressed in the preceding paragraphs, the development of CL in the classroom should be based on the strengthening of reading comprehension habits, avoiding the mere transmission of knowledge. Therefore, the teacher must take into account two fundamental aspects: on the one hand, that the literary text is a communicative medium and transmits ideas, emotions, reflections, experiences, ideologies and perceptions of the author's reality in a given space and time; and, on the other hand, the relationship between the text and the reader as an exchange activity. Therefore, its role should be to guide the reader towards a profound encounter with the text by employing methods of analysis based on integral approaches that enable the interpretation of any cultural manifestation as a communicative event mediated by codes.

1.2 Semiotic Approach and ICTs

Considering that the development of literary competence is a complex process, the teacher, as a mediator between the student and the literary work, must incorporate relevant models, approaches and teaching tools that manage to awaken the student's interest in reading and producing this type of texts. As Bolívar and Gordo (2016) state, the teacher has the role of promoting reading by applying the appropriate teaching-learning approach to develop skills of creation, argumentation, interpretation and production of literary texts. Among these, the semiotic approach to teaching literature stands out, which is characterized by going beyond the linguistic and formal aspect of the work. It places the study in the content of the text, its sense and meaning in terms of the linguistic, pragmatic, sociocultural, aesthetic, and other characteristics that concern the text in its production and reading (Rojas, 2018).

In line with the above, the literary text is a mode of artistic creation that is established as a complex cultural construct, whose production has been carried out under certain circumstances such as the author's experiences and subjectivity, the spatio-temporal circumstances and the cultural context that surrounds it (Nogueras et al., 2021; Bahanondes et al., 2015). For its part, signification, the object of study of semiotics, is manifested both when producing and interpreting a given text (Blanco, 2006). From this perspective, a literary text is a communicative act between the author and the receiver (Castro & Posada, 1994). Therefore, it is a semiotic unit whose meaning is influenced by the sociocultural context that frames both its creation and reception, and whose factors must be analyzed for a correct interpretation and understanding of its content.

Given that in the present study priority was given to the development of literary competence through narrative texts (stories), the theory of narrative semiotics was chosen, specifically the "generative path", proposed by Algirdas Julius Greimas and complemented with the contributions of other semioticians. This model explains the transition or movement for the generation of meaning and senses of texts. Greimas, for methodological purposes, separates the plane of expression (narrative syntax) and the plane of content (narrative semantics) and proposes to explain a path that goes from the simple to the complex and from the abstract to the concrete in three dimensions: fundamental, narrative and discursive, although the meaning of the text depends on the integration of the three aspects (Barros, 2017). Among the elements that make up the generative path, the following are taken up for the present study: Actorialization, Spatialization, Temporalization, Narrative Program and Canonical Scheme, among others. Each of them is described below (see Table 1)

In summary, through the generative path and the elements described above, it is possible to analyze the composition of the narrative text. In addition, it should be considered that these elements have a *raison d'être* in the story, the whole configuration of characters, space, time not only serve to build the story, but have a deeper significance, they symbolize certain themes, from which it is possible to interpret the text and the culture. In this line, it can be affirmed that the generative path not only allows to understand a text, but also to produce, since these elements are the guide or the basis that must be foreseen in the planning and writing of a narrative text to transmit and configure the meaning and the senses that are to be transmitted.

With regard to technological resources, there is currently a diversity of tools that allow the learning of diverse knowledge and skills. As Siemens' (2004) connectivism theory argues, in the digital era it is essential to incorporate ICT tools in the educational process, so that students develop competencies for the selection and treatment of information from a critical point of view. The integration of ICTs in the didactic process has multiple advantages for the discovery and production of knowledge, since they are used to access information, to create different types of content (word processors, image editors, audio and video platforms, etc.) and as a means of communication, allowing online activities to be carried out interactively.

Table 1. Elements of Semiotic Analysis

Elements	Definition / Description
semiotics	
Actorialization	It is the procedure that allows the configuration and identification of the actors (characters) and their acting roles (actants) that make up the narrative plot (Moreno, 2022). It involves considering the physical, psychological and moral characteristics, in addition to their actions or functions within the story. For this purpose, Greimas (1971) established the Actancial Model, which explains six actancial roles according to three axes: the axis of desire, made up of a Subject (S) who seeks something, and an Object (O) who is the something desired; the axis of communication, in which we find the Addressee and the Addressee, between whom there is a transfer of information about the Object; and, the axis of Power, in which the roles of Helper and Opponent are manifested, according to their function of supporting or hindering the Subject in reaching the Object.
Spatialization	It studies the configuration of the place where the events of the narrative take place. This can, like other elements of the literary narrative text, be real or fictitious and can be of three types: topical, paratopical and utopian. The first is where the events take place; the second, where the competencies are acquired; and the third, where the performances are realized (García, 2011).
Timing	It allows to organize the sequentiality of narrative events; it starts from the temporal location in the "now" from which it is possible to establish a before and an after, configuring three narrative tenses: past, present and future (Prada, 1988). In addition, it makes it possible to situate the story in a specific time and the duration of the story (Quezada, 1991).
Narrative program	It is a logical tool used to describe graphically the central action of the story from two states related by an action. In other words, it shows the changes of state of the characters, mainly the Subject with respect to the Object (Blanco & Bueno, 1989). In this sense, it can go from a state of conjunction to disjunction and vice versa or it can be maintained.
Canonical scheme	It formally describes the logical order of the narrative through three moments: manipulation (one actant convinces another to perform an action through strategies such as intimidation, temptation, provocation or flattery), action (series of actions by the subject to produce a transformation, either conjunction or disjunction) and sanction (evaluation of the action performed by an actant who assumes the role of judge who issues a cognitive (assessing as positive or negative) or pragmatic (reward or punishment) sanction (Tatit & Beividas, 2017; Greimas & Cortez, 1982).

Note: The table describes the main postulates of the generative path that are part of the academic proposal put forward in this study.

Liñan (2019) from a semiotic approach, recognizes the functioning of the pedagogical use of the Moodle platform in university teaching in university students in Colombia, through which the sense that each of the educational actors participate in the educational scene is reconstructed. For Elgue and Salle (2014), it is very useful to redesign the spaces and times of learning from an innovative perspective, it is ICTs that allow the creation of environments that integrate semiotic systems, seeking representation, transmission and sharing of information (Coll, 2007). The components of digital semiotic competence have a theoretical and methodological value, Reytor (2022) conducted a study with university teachers in Spain where he highlights the importance that this competence is exposed in the student's training process, to contribute to their comprehensive training being able to analyze, understand and build various texts.

Particularly, for the development of literary competence, there are computer tools that facilitate both the comprehension and production of literary texts (Cantero, 2011). These include tools such as Google Drive, a platform that allows the creation of folders where files can be stored in various formats, viewed and edited either individually or collaboratively. There are also programs such as Kami, which allows reading, editing and rewriting documents; Mindomo and Coggle, for creating graphic organizers; Word and Google Documents for writing, reviewing and editing texts; and Padlet, a tool that works as a mural where you can write or insert files.

2. Method

2.1 Participants/Corpus

The population, understood as the total of the elements involved in the study on which the findings are generalized, consisted of fifth grade high school students from a public educational institution in the city of Lambayeque. From them, a representative sample of 32 participants was chosen by means of the non-probabilistic intentional sampling technique.

2.2 Research Design

This study was conducted under the quantitative approach, which is characterized by seeking to test a hypothesis through numerical expressions and statistical processes (Finol & Vera, 2020). The type of research was non-experimental and the design was descriptive-propositive, which consisted of making a diagnosis about a certain phenomenon and, from this, formulating a proposed solution based on a theoretical foundation (Estela, 2020). Therefore, an instrument was applied to measure literary competence, the results were analyzed, interpreted and described and, subsequently, a didactic proposal was designed to meet the needs found.

2.3 Materials

As a research instrument, the "Likert Scale to evaluate literary competence" was created, which consists of two parts, the first contains activities for the comprehension and production of a narrative text and the other consists of the Likert Scale to evaluate these activities carried out by the students. In this line, the second part of the instrument is composed of 20 items that evaluate literary comprehension and discursive production. Each of the items, as statements, is evaluated by selecting one of the five categories of the scale (Hernández-Sampieri & Mendoza, 2018), according to what is observed in the evidence or product under review: proficient, achieved, in process, beginning, and not proficient (see table 2)

Table 2. Rating Scale for Assessing Literary Competence

Achievement level	Valuation	Points per item	Vigesimal scale	Total score
Competent	All is well	5	20-17	100-81
Achieved	Most of them are well	4	16-13	80-61
In process	It is equally successful and unsuccessful.	3	12-09	60-41
At startup	Few things are right	2	08-05	40-21
Not competent	Almost nothing is right	1	04-00	20-00

As for the items, they were organized as follows (see Table 3)

Table 3. Items of the Instrument "Likert scale to assess literary competence".

Dimensions	Subdimensions	items
Literary Comprehension	Discursive Analysis of literary discourses	1. Identify the acting roles of the characters in the narrative.
		2. Distinguishes the space of the narrative.
		3. Recognizes the tense of the narrative.
		4. Identify and describe the central action of the narrative.
		5. Point out the logical order of the actions in the narrative.
	Literary Production	Comprehension of literary discourse
7. Generate an idea for their story based on the actors of the analyzed text.		
Text planning		8. Construct a writing plan that logically arranges the actions of the story into beginning, middle, and end.
		Drafting the text

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- | | |
|--|--|
| Revision and restructuring of the text | <ol style="list-style-type: none"> 11. Places the story in a specific time. 12. It employs at least two types of literary figures. 13. Develops a central action during the course of the story. 14. Establishes logical-semantic relationships, expressed through discursive connectors, references and punctuation marks. 15. Writes sentences and paragraphs using correct grammatical rules. 16. Proper use of punctuation, accentuation and spelling. 17. Write the story in a personal style. 18. Use a linguistic register appropriate to the communicative situation. 19. Create a story from the original story. 20. Checks the coherence and cohesion of the story and corrects according to grammatical and orthotypographic rules. |
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It should be noted that this instrument was subjected to validity and reliability processes (Corral, 2009). First, content validity was estimated using the so-called expert judgment. In this line, it was submitted to the evaluation of five teachers of Language and Literature with doctoral (2) and master's (3) degrees, who assessed the clarity, coherence and relevance of each of the items. The data obtained were analyzed using Aiken's V statistic, using the formula $V = S / (n(c-1))$, obtaining a high value of 0.99 points on a scale of 0-1. Subsequently, the degree of reliability was identified through the application of a pilot test of the instrument in a similar population. The data obtained were processed through the Cronbach's Alpha statistic, determining that the instrument has a very high level of reliability with a score of 0.82.

2.4 Procedure

The data obtained from the application of the instrument in the study sample were tabulated using a matrix in Excel. Then, they were statistically processed to obtain the arithmetic mean, median and mode. They were also analyzed and interpreted and then described in the presentation of results and discussed in relation to the findings of other similar studies. Finally, a didactic proposal was formulated based on the semiotic approach to develop literary competence, emphasizing the main needs identified in the diagnosis.

The study begins with an exhaustive review of the literature useful in identifying the problem, the problem statement, knowledge of the current state of the question and determining the impact of the research, as well as theorizing sufficiently in order to prepare the most pertinent tool. In this way, the study projects the materials based on the main purpose, to elaborate a proposal. At the same time, the coordination with the study population that presented the difficulties, the institutions that housed the participants and the preparation of them, considering the informed consent, an ethical aspect of the work, were carried out.

Even in a previous period, it was guaranteed that the Likert Scale to evaluate literary competence had the corresponding scientific rigor through the evaluation by experts and the piloting to which the test was submitted. This made it possible to initiate the field work and to carry out the diagnosis, treatment, analysis and interpretation of the data, thus arriving at partial results that allow the modeling of the contribution, in absolute correspondence with the findings, becoming the inputs for a proposal that solves the levels found on literary competence in high school students.

It should be noted that digital tools such as the Excel spreadsheet were used to mathematically tabulate the data (arithmetic mean, median and mode). On the other hand, in the theoretical modeling, the didactic-methodological procedures are refined with ICT, supported by the review and adaptation of resources with pedagogical use. Finally, the processes conclude in the elaboration of the final report, highlighting the contribution in a structure and format that regulates precise, concise and clear information in scientific dissemination.

3. Results

In this study it was found that students in fifth grade of secondary education present a deficient level of achievement in literary competence, since on a scale from 0 to 20 they obtained an average of 8.4 points, which is a disapproving rating. Likewise, 100% of the students are located in the non-proficient and beginning levels, both in comprehension

and discursive production. Likewise, by resorting to descriptive statistics, fluctuating averages between 5 and 12 were observed as minimum and maximum scores achieved. This corroborates levels of non-proficient achievement, being noteworthy that the most common score is 7 and the coefficient of variability denotes a group with homogeneous performance (21.6%) (see Table 4).

Table 4. Results of the Achievement Level of Literary Competence in Fifth Grade Students

Achievement level	Score	Fi	%
Not competent	≤ 10	27	84%
At startup	11 - 12	5	16%
In process	13 - 14	0	0%
Achieved	15 -17	0	0%
Competent	18 - 20	0	0%
Total		32	100%

Note. Scale used for n=32.

In view of these findings, a didactic proposal was designed with a semiotic approach mediated by ICT. This was based on the theory of the generative path of meaning belonging to Greimas' structural semiotics, the Didactext writing model and Siemens' connectivism theory, with the aim of improving literary competence at the level of comprehension and discursive production in the described student population.

Regarding the teaching methodology, the proposal considers active didactic strategies such as Project Based Learning (PBL) and Cooperative Learning. The first one consists of the execution of a project aimed at solving a problem of reality by applying diverse knowledge and skills to plan, make decisions, investigate and carry out actions that allow the achievement of a goal or product (Zambrano et al., 2022). The second consists of students forming teams to develop activities in a coordinated manner to achieve a common goal (Angulo, 2022). In this sense, students will start from a specific situation to carry out a literary writing project, obtaining as evidence their narrative texts (stories) where they show the management of narrative elements from a semiotic perspective and are coherent, cohesive and appropriate to the communicative situation and purpose.

Likewise, regarding the evaluation of learning, it will be carried out under the socio-formative approach. That is, it will be focused on assessing the performance of the students with the objective of providing effective feedback that will allow them to continue advancing in the development of their competencies (Tobón, 2017). Therefore, it is proposed to carry out a continuous evaluation throughout the execution of the project, highlighting three moments: beginning, process and exit. Likewise, it is intended that students assume an active role in their learning by acting as evaluators of their own performance and that of their peers, so that -in addition to the teacher's evaluation- self- and co-evaluation activities will be carried out.

The didactic proposal is made up of 12 theoretical and practical workshops, organized into two thematic units: comprehension and discursive production. The first is composed of five workshops totaling 10 teaching hours. In the workshop No. 1, students will read a story using Kami, learn about Actorialization and the Actancial Model, then analyze the story applying what they have learned and present it through a visual organizer in Coggle. In workshop no. 2, in teams they will analyze the Spatialization and Temporalization of the story through a Word file and will socialize it through a Padlet. In Workshop 3, they will identify the Narrative Program of the story through a PowerPoint timeline. In workshop #4, they will identify the canonical outline and present it using a Canva presentation. Finally, in Workshop 5, they will retake the previous analysis to construct the global meaning and senses present in the story and will socialize it using the Canva tool.

The second thematic unit, referring to discursive production, contains seven workshops of two hours each, which follow the sequence of the Didactext model, but in a manner linked to what was worked on in the first unit. In workshop no. 6, students will choose their favorite characters from the story read and will change the acting roles to generate a different story, the idea generated will be socialized through a Padlet. In workshop no. 7, they will elaborate the writing plan considering the elements of the narrative text and the structure of the story through the Mindomo program. In workshop 8, they will write the first version of the story according to the structure of the textual genre using Word. In workshop no. 9, they will learn about and use rhetorical figures in the writing of the story. In workshop 10, they will revise the text produced through self-evaluation and co-evaluation, using a Google form and adding comments according to the criteria to be improved. In workshop 11, they will edit the format of the

text (font and font size, colors, illustrations, etc.), design a cover page creatively using Canva and publish the final product using a Padlet. Finally, in workshop #12, students will orally present the story through shadow theater.

The proposal was validated by three experts. They evaluated the projectivity of the proposal considering the following criteria: relevance, pertinence, originality and feasibility. In addition, clarity, theoretical consistency, technical quality, methodology, extension and evaluation. Through these evaluations, a rating of 87.8% (very high) was obtained, which indicates that the program has scientific validity and is relevant to develop literary competence in a specific and contextualized population. In sum, a pertinent academic proposal is proposed, which meets the needs found in the diagnostic phase. To this end, it employs a comprehensive approach, whose interest goes beyond the formal aspect of the text to delve into the study of the signs that compose it in relation to the socio-cultural context that surrounds it. In addition, it is an innovative proposal because it includes the use of digital tools in order to optimize the development of each of the activities it proposes and facilitate the processes of literary reading and writing.

4. Discussion

As a result of the study, the characteristics of a didactic proposal with a semiotic approach mediated by ICT to develop literary competence were specified, considering the importance of addressing the holistic analysis of literary texts using computer tools to bring students closer to literary enjoyment, critical interpretation and appropriation of textual characteristics. Research that is consistent with the present study includes Herrera and Roque (2017), who determined that integrating activities based on the semiotic method has a positive impact on strengthening text comprehension, as it allows developing critical and reflective thinking in students. Similarly, Hernández (2019) demonstrated that the application of a didactic model of interpretation based on semiotic theory greatly improves literary competence both at the level of comprehension and in the production of discourses of this type.

Likewise, other studies that agree with the present research argue that the incorporation of ICT in the teaching-learning process of literary competence has a significant impact on learning. In this sense, we find Martí and García (2021), who state that the didactic application of gamification and ICT allows the development of activities of analysis, interpretation, dialogue, writing and creativity through teamwork, discussion and decision making, leading to the elaboration and dissemination of an original literary product. In parallel, González (2018) argues that the inclusion of ICT in the teaching of literature allows students to enhance their critical interpretation and literary creation, since it facilitates the management of texts through the Internet, reading from new modalities and socialization, in addition to serving as a support for the creative writing of texts with literary intent. Finally, Ortega and Rovira-Collado (2020) developed a transmedia project for the literary training of high school students, managing to specify the importance and effectiveness of the implementation of Project Based Learning (PBL) mediated by technologies in the reading, production and dissemination of literary works by students.

Semiotics becomes a necessary foundation to understand inclusive education through an epistemic discourse, involving student learning and teacher teaching, considering the literary text as a sociocultural construction in personal and social development for the real improvement of society (Palma, 2016). ICTs have an important impact on the mediation of communications, especially in populations with special educational needs, the higher psychological processes are characterized by the use of symbolic instruments such as language (Rosas & Escobar, 2010).

On the other hand, Muñiz and Falcó (2021) present the importance of the possibilities that technology offers, it has no physical limits and depends on the design of the virtual environment. Arloopa is a tool that through augmented reality allows the student to understand in a more graphic and representative way, the proposed project achieves greater visibility in the field of special needs in learning. Beltramone et al. (2015) developed the project that aimed to apply natural interfaces to multisensory rooms, highlighting the importance of incorporating new technologies within the didactic space of the multisensory room as a tool for rehabilitation and education.

In short, it is important that literature be addressed in the classroom, whose interpretation and understanding requires a holistic analysis of its textual composition in relation to the cultural context that frames it both in its production and reception (Nogueras et al., 2021). Thus, with the support of digital tools, it is possible to develop knowledge, skills and attitudes in students to address the tasks of analysis, interpretation and evaluation, as well as for the creative writing of literary texts. On the other hand, it is necessary that teachers can make use of ICT in their training practice, the digital reality must be included in their training, so that they can update the didactic contents to the current reality. Teachers need to know and develop methodologies that integrate new technology resources in literary education, where cooperative and reflective work is recognized (Rovira-Collado et al., 2022).

4.1 Limitations

In reference to the limitations of the research, this study is a first quantitative approximation to the practice, it remains to analyze, from a qualitative dimension, the didactic proposals that may reveal a better incidence of literary competence.

Despite the difficulty of semiotic studies, this model becomes an effective model for the various qualitative studies of literary discourse, it is necessary to configure a semiotic methodology that can be combined with the various aspects of formal language.

Semiotic studies have shown how the construction of the knowledge of a subject models student discourse. It is necessary to project and deepen the semiotic descriptions according to disciplines and learning according to areas of knowledge. Teachers, through these inputs would allow them to relate technology and social practices in the classroom, designing teaching and learning strategies and appropriate evaluation according to the nature of the study.

5. Conclusions

In the present study, it was determined that secondary school students have a deficient level of achievement in literary competence. In view of this, a didactic proposal was designed and validated with a semiotic approach mediated by ICT for the development of literary competence in fifth grade students of secondary education. This was mainly based on semiotics, to work on the comprehension of literary texts, and on the socio-cognitive, pragmalinguistic and didactic model Didactext, to guide the writing of a narrative literary text. In addition, the postulates of the theory of connectivism were taken up again to incorporate technological tools in the didactic process of both dimensions. In this way, the strengthening of knowledge and skills for both comprehension and literary discursive production is promoted, developing, in addition, critical thinking and digital competences. The proposal designed is conceived under an innovative approach, in relation to the use of ICT, which seeks to integrate educational tools and practices in the curriculum of educational institutions.

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Authors contributions

SASPR and KYRR were responsible for study design and revising. SASPR; HSS and LGF was responsible for data collection. OACU and RMH drafted the manuscript and MASL and LGF revised it. All authors read and approved the final manuscript. In this paragraph, also explain any special agreements concerning authorship, such as if authors contributed equally to the study.

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