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Psychopedagogical intervention with children with atypical development: symbolic play, *letramento*[1] and introduction to the alphabetic system[2]*

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Abstract

The aim of this article is to discuss the process of introducing a child with atypical development - a severe form of Chromosome 22 Band q11.2 Duplication Syndrome (SDup22q11.2) - to the alphabetic system of the written Portuguese language, based on symbolic play and *letramento* during psycho-pedagogical support. The study is based on the premises of the Historical-Cultural Theory (HCT) of human psychic development, whose founder and main representative is Lev S. Vigotski; it is also based on the premises of Magda Soares on *letramento* and literacy. This is a qualitative case study. A 7-year-old girl with a severe form of the Syndrome, attending the second year of elementary school at a regular public school, took part in the research. Semi-structured interviews were carried out with the parents, the teacher and the student's tutor, as well as a developmental survey with the participant at the beginning and end of the research process. During the research process, interventional activities were carried out on the constructs of play, *letramento* and alphabetization, inspired by Magda Soares' book *Alfaletrar*. The analysis of the data showed that learning and development occurred to the extent that stimuli adapted to the participant's developmental level were offered, as she moved from the manipulative play phase to symbolic play with emerging *letramento* and writing the first letter of her name. It can be concluded that learning occurs when intervention activities are intentional and meet the individual development of the subject.

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Keywords

Atypical development – Symbolic play – Literacy – *Letramento* – Psychopedagogical intervention.

Introduction

This article is an excerpt from the doctoral research of the first author, supervised by the second, and deals with the introduction of the alphabetic system of the written Portuguese language to a child with atypical development – a severe form of the Chromosome 22 q11.2 Band Duplication Syndrome (SDup22q11.2), through symbolic play and *letramento*. The study is based on the premises of the Historical-Cultural Theory (HCT) of human psychic development, whose founder and main representative is Lev S. Vygotski4, and also on Magda Soares' concepts of *letramento*.

Human neurobiological development takes place through basic biological processes and the establishment of appropriate social relationships that drive this development. In this sense, there is a diversity of possible manifestations of human development beyond what is considered neurotypical (Vygotski, 1997). Some of these forms of diversity are those originating from SDup22q11.2, which is part of the life of the child who took part in this research.

Chromosome 22 Band q11.2 Duplication Syndrome was first described in 1999 (Edelmann *et al.*, 1999). The genetic mutation (duplication of the q11.2 band of chromosome 22) can cause anything from mild symptoms, so that there is no noticeable difference between the subject with the mutation and the general population, to extremely severe forms of manifestation, with symptoms such as intellectual disability, learning difficulties, memory deficits, deficits in perceptual organization and verbal comprehension and speech impairment.

Symptoms of SDup22q11.2 such as delayed neuropsychomotor development, growth retardation and muscle hypotonia are also described in the literature, and dysmorphisms such as hypertelorism, flat nose, dysplastic ears, epicanthic folds, velopharyngeal insufficiency, micrognathia and clefts may occur, as well as congenital heart malformation, visual and hearing impairment, seizures, microcephaly, urogenital abnormalities and ptosis (Wentzel *et al.*, 2008). Thus, the phenotypic presentation of the syndrome can range from asymptomatic forms to severe neurodevelopmental conditions, such as autism spectrum disorder (Wenger *et al.*, 2016; Clements *et al.*, 2017), intellectual disability and epilepsy (Valvo *et al.*, 2012). Transmission of the genetic mutation that gives rise to the syndrome occurs through genetic inheritance from the father and/or mother, who are commonly asymptomatic carriers of the mutation (McDonald-McGinn *et al.*, 2015; Wenger *et al.*, 2016).

Vygotski (1997) considers that disabilities manifest themselves as qualitative and quantitative differences in relation to development considered typical, within the possible

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4- In the bibliography consulted, the name Vigotski is found in several ways: Vigotski, Vygotsky, Vygotski, Vigotsky, Vigotskji, etc., depending on the language in which his works are translated. In this study, we chose to use the spelling Vigotski, which is the "Brazilianized" version of the name (Duarte, 2013).

manifestations in the spectrum of human development. He advocates that the environment and teaching should be adapted in order to contemplate all forms of development, since everyone has the possibility of learning and developing, as long as their development zones are observed and mediation is carried out in such a way as to meet the subject's needs, providing forms of learning that optimize their potential (Vygotski, 1997). In this way, Vygotskian theory, or the Historical-Cultural Theory of human development, provides the foundations for this study, since it starts from the diversity of human development and the education of people with disabilities, focusing on what is lacking in the culture for these subjects to develop and not on what is lacking in the subjects for them to adapt to the predominant culture of their social group.

In addition, the Vygotskian concepts of developmental zones consider the following factors: the activities that the subject has already mastered and is able to carry out on their own refer to real development; the activities that the child is able to carry out with the help of another person who is able to do so are related to the zone of proximal development (Vygotski, 2003). In this way, working from what the child has already mastered (real development), but moving towards their zones of proximal development, is a humanized way of helping the child to transform proximal development into real development and to open up new zones of proximal development, accelerating and optimizing child development.

It is also worth mentioning that Vygotsky's theory points out that child development has phases in which one precedes the other, but which do not die out when the subsequent one does, serving as a foundation and transforming as the child develops through learning, because, for the theorists of Historical-Cultural Theory, learning precedes development and drives it (Vygotski, 2003). In this way, symbolic play precedes and underpins the literacy and literacy process, which, in the Historical-Cultural Theory, is treated as the social function of writing, without the use of the term *letramento*, as explained by Magda Soares.

Leontiev (2014, p. 127) warns us that when children play, they reproduce reality through representation, but the symbol and imagination present in play are subordinate to reality; therefore, when they play make-believe or role-playing, they develop symbolic representation. In the author's words "[...] playful activity is such that it leads to the emergence of an imaginary play situation", in other words, through playful activity the symbolic function is developed.

The actions performed by the child during role-playing or make-believe play are aimed at the activity of representation itself – this is the phase that precedes the school stage of literacy, in which the main activity is studying (Elkonin, 1987). In this way, make-believe play is one of the pillars for the development of the activity of study, which has literacy itself in its course.

Thus, the phases of make-believe play and study activities are consecutive. Leontiev (2014), Elkonin (1987) and Vygotski (2000) make it clear that new phases are immediately supported by the previous one, and that the main activity of the previous one does not cease in the new phase. As such, make-believe play is still present during literacy. In addition, the aforementioned authors also refer us to the fact that, as the child develops within the role-playing phase, these games start to have rules that are in line with the

social rules inherent in their social group, which helps them to develop higher psychic functions, such as inhibitory braking and will control, which are fundamental for literacy and for all school learning and humanization. It's also worth pointing out that symbols are present in all types of play, and this is also how they promote writing.

With regard to humanization, Vygotski and his collaborators explain that human beings are not born human, but learn to be human. And this humanization is what really differentiates us from other animals, and can only be provided by other human beings through the transmission of culture and opportunities to experience it. It is through relationships with other human beings and with material and non-material culture, produced socially and accumulated historically, that children develop and become humanized. In this way, they become humanized to the extent that, through the intervention of other human beings, they have access to the knowledge that has been elaborated and accumulated historically – which constitutes the culture of a group of human beings (Vygotski, 2000).

As for the writing system, initially, in human history, it represented objects. As it evolved, it began to represent language. But regardless of this fact, Vygotski (2000) points out that writing is a system of symbols, made up of signs that represent something, and is therefore a system of symbolic signs. Literacy must therefore be in line with the transition from speech sounds to writing, but it must not be limited to mechanical training and spelling, but rather to the fact that writing is a language in its own right and has unequivocal importance for child development and humanity.

It is important to emphasize that children begin to learn to write long before they enter the literacy phase of school, when this system is taught. During their development, they have a pre-history of writing, in which they develop superior behaviors that enable them to learn to read and write in a relatively short period of schooling (Luria, 1988). Writing, as a higher psychological function, develops through the interaction between cultural and biological factors. As it is a cultural behavior and not an innate one, for it to occur, it needs the interaction between culture and organic development, as well as the mediation of another human being capable of doing so.

The gesture in the air is the child's first form of writing. Gesture is a visual sign that gives birth to language, as it plays a communicative role. For the child, when the gesture has a meaning attributed to it by the adult, it becomes a form of representation. So, when they move their body towards an object and the adult gives it to them, their gesture has become a form of language. Then, when the child uses the gesture deliberately, Vygotski (2000) states that this is because it has been appropriated as a representative form, as a symbolic function, which can only be appropriated through the mediation of the other.

According to Vygotski (2000), the child's second form of writing is drawing. They represent their ideas in drawing and, because it is a form of representation, it is also a form of writing. In order to learn to represent their speech through writing with letters, children first need to know that they can draw what they say.

The next stage, until alphabetic writing itself, is role-playing or make-believe. It establishes a relationship between gesture and writing, which allows the child to attribute the desired meaning to the object they are playing with, managing to mentally represent

what they want without the object itself having the meaning they have given it, thus making the mental representation necessary to symbolize and represent phonetic segments in graphic segments – writing.

For Soares (2016), the transcription of phonemes into graphemes is very important for the literacy process, but it is not enough. The author introduces us to the concept of *letramento*, a term she coined with the aim of defining the social role of literacy in a didactic way, justifying the creation of the word *letramento* by the need to create a term that would clearly explain the practices and behaviors of using the writing system in social situations where literacy translates into effective social communication (Soares, 2016). Thus, as the concept of *letramento* stems from a need to broaden the concept of literacy, the two processes are often used synonymously and even confused. Soares (2016) proposes that, conceptually, there may not be a need to distinguish between alphabetization and literacy, and that a reframing of the concept of literacy would suffice. However, from a pedagogical perspective, the distinction is very important, so that both processes have the same emphasis in the teaching-learning process, although it is essential to recognize the inseparability and interdependence between the two, since literacy only makes sense when it is in a social context of communication through reading and writing, which is called *letramento*, which only occurs through learning the alphabetic system of coding and decoding phonemes and graphemes and learning the rules of written language.

Still in view of Soares' study (2020), the author warns that, although literacy and *letramento* are inseparable and interdependent, the basis of the literacy process is *letramento*, since reading and writing are means of communication and social interaction, and the literacy process itself is the instrument used for this. With regard to this conceptual aspect, Vygotski (2000) explains that writing is a set of graphic signs that symbolize speech, in other words, it is the drawing of what we would speak to an imaginary or absent interlocutor, constituting its own language of social value, linked to the alphabetic system of coding and decoding phonemes and graphemes, but being a cultural instrument of social communication practices.

In the sense of using graphic signs to symbolize speech – writing – Vygotski elaborates that in any activity in which children use things to represent other things, they are carrying out a primitive form of writing. Soares (2009) corroborates this, as she believes that literacy and *letramento* should begin in early childhood education, with the introduction of the alphabetic system to children in a playful way and as part of literacy, showing them the function of writing through illustrated books, which arouse curiosity in students, among other techniques (Soares, 2009).

Therefore, learning to write requires that children, while understanding the grapheme/phoneme system, detach themselves from it, because writing cannot be explained by a mechanical action of coding/decoding sounds and graphs. It is necessary to detach oneself from the sensory aspects involved in the process and develop the process of replacing speech with images of words, using the symbolic function to do so. Thus, it can be said that writing is a representation of something that is not present for an absent interlocutor or that doesn't even exist. In this way, the symbolic function of mentally representing what is not possible in concrete form is established. This is a sophisticated form of communication that is used socially and which, at the same time as it is established

through learning, promotes the development of higher psychological functions in the subject – returning to the Vygotskian premise that learning promotes development.

In this sense, writing must be incorporated as a necessary and relevant task for life, so that it can then develop as its own language and not as a memory habit with no social connection (Vygotski, 1994). Dialoguing with this issue, as Soares (2003, 2009, 2016, 2020) teaches us, literacy is the technology of writing and does not precede nor is it a prerequisite for *letramento*, but rather the opposite, since children learn to read and write by involving themselves in contexts of social and cultural use of the written language.

For Soares (2016, 2020), the basis of literacy will always be *letramento*, since reading and writing are means of human communication and interaction. In this way, reading stories can generate countless writing activities, from the most basic and initial, to the most complex. Phonological awareness, syllabic awareness, letter spelling, rhymes, alliterations, among other aspects can be worked on. The most important thing is that the child is immersed in a literate context and that, in this context, *letramento* and literacy opportunities are implemented intentionally, with planning and systematization (Soares, 2016).

In addition, Soares (2020) considers that literacy and *letramento* are distinct cognitive and linguistic processes, but that, pedagogically, they need to be interconnected, as they are interdependent and simultaneous processes. The author also considers that children learn the technology of writing through their involvement in *letramento* practices, reading and producing real texts in the sociocultural system in which they are inserted.

In view of the issues raised, we can understand that Vygotsky's concepts are in dialogue with Soares', since both are based on the social context. In other words, both authors understand that *letramento*, the social function of writing, occurs through stimulating activities from the environment, in the sociocultural context in which the child is inserted, which can be stimulated through collaborative reading and writing projects, symbolic games and story representations, for example. Thus, learning takes place through a dynamic and social process, in which cognitive development and social *letramento* practices intertwine to form a humanized and effective education. Furthermore, Vygotsky's theory of the zone of proximal development and Soares' emphasis on the interdependence between *letramento* and literacy suggest that the role of the teacher is crucial. The teacher not only facilitates access to knowledge, but also acts as a mediator, guiding students through their zones of development and integrating *letramento* practices into everyday activities.

Furthermore, by recognizing that literacy and *letramento* are inseparable processes, the integrated approach allows students to see writing and reading not just as school skills, but as essential tools for communication and social interaction. This promotes meaningful learning, where students understand the purpose and usefulness of the skills they are developing.

In other words, the symbolic function, acquired through symbolic play, is the foundation and basis for the *letramento* process, and *letramento* can be worked on in conjunction with the symbolic function to introduce children to the alphabetic writing system. Based on these constructs, the aim of this research is to discuss the process of introducing a child with atypical development to the alphabetic system of the Portuguese language, through symbolic play and *letramento*, taking into account the psycho-

pedagogical support provided by the first author. It is also worth mentioning that the theoretical basis for this study is Vygotskian theory and the studies of Magda Soares.

With this in mind, this article aims to present a case study of the introduction of the Portuguese alphabetic writing system through the development of the symbolic function and *letramento* with a 7-year-old child with SDup22q11.2 who has severe symptoms of the syndrome.

Method

This research is a qualitative case study (Yin, 2001), in which the participant is a 7-year-old girl with severe SDup22q11.2 symptoms, living in the metropolitan region of Porto Alegre, Rio Grande do Sul. The participant will be called by the codename Laura in order to protect her identity.

Data collection took place between February and November 2023, in one 50-minute psycho-pedagogical session per week, implemented by the first author, who specializes in psycho-pedagogy. The participant was in the second year of elementary school, in a regular class at a public school, with an adapted curriculum and professional support in the classroom.

The research followed the principles of non-maleficence, emphasizing respect for human life and the preservation of social morality and individuality. Thus, this research complied with the ethical parameters of Resolution 510/2016 of the Brazilian National Health Council (CNE, 2016), following its guidelines on ethics in research with humans. It was approved by the Research Ethics Committee (CEP) of Feevale University, under opinion number 3.552.180.

Understanding that real development is linked to what the child is capable of doing alone and that the zone of proximal development refers to actions that the child is able to carry out with the help of someone from outside who is able to do so, this research aims to discuss the process of introducing a child with atypical development to the alphabetic system of the Portuguese language, based on symbolic play and *letramento* during psycho-pedagogical support. In addition, the research is based on Vygotskian theory and the studies of Magda Soares.

For this reason, the methodological construction of the intervention work with the participant was based on the Vygotskian principles of zones of development, as well as on Magda Soares' premises regarding literacy and *letramento*. The set of activities used during the sessions was constructed as the research took place, based on observation of Laura's interests, taking into account her developmental zones, and the researcher's intention to advance these zones through play, the main activity in childhood.

The activities to introduce alphabetic principles through *letramento*, proposed during the sessions, were inspired by the "Language Classroom Observation" from the book *Alfaletrar* (Soares, 2020, p. 28-30). *Alfaletrar* provides not only a theoretical basis for *letramento* and literacy, but also practical examples of interventions for these purposes, ways of recording learning, among others, as well as encouraging the reader to develop their own conjectures about the process. With a view to organizing and teaching the

research work, it was divided into three consecutive stages in order to gain a better understanding of the research participant's learning and development process.

In the first stage, which took place over six sessions between February and March 2023, we tried to get to know Laura, her family, her school and carry out a survey on her development in the symbolic function, *letramento* and literacy constructs, as well as trying to understand her interests and preferences. We used empirical tools to carry out the survey, holding sessions in which Laura had access to toys, various books and school materials, mediated by the researcher. In addition, we diversified the environment, adding or removing elements such as rugs, a board with pens, small tables and chairs suitable for younger children, standard-sized tables and chairs used in primary schools, a large mirror and structured materials.

In the second stage, which took place between March and October 2023, the intervention sessions focused on the constructs, starting with symbolic play and *letramento*, through a set of playful activities to develop these skills. As the participant evolved in her symbolic play and *letramento*, the alphabetic principles were introduced. It is important to stress that all the work was done through playful mediation.

So we worked with storytelling adapted to the research participant's proximal developmental level, with play scripts that stimulated her imagination and understanding of the stories, starting with concrete characters and scenarios in which the actions could be implemented, and followed by activities with free drawing, painting, complementing stories and spontaneous writing, always in accordance with the participant's affections and real and proximal developmental level. The whole process was playfully mediated and carried out in a humanized way, meeting Laura's movements.

In the third stage, held in November 2023, a new survey was carried out on the participant's development in the constructs of symbolic play, *letramento* and literacy, as well as a new interview with her mother, father, teacher and monitor, in order to understand the results of the intervention process on the participant's development based on the intervention process itself, the new survey and the perceptions of the adults who live with her.

The procedures used during the meetings with Laura were built dynamically, in the relationship between the researcher and the participant, as the sessions took place. The therapeutic work had a cadence that was sensitive to Laura's times and movements, since she is the protagonist of the study and her times and movements were the triggers for the use of the research instruments, in line with her real and proximal development. The humanized approach implies exactly this key point: a respectful partnership with the research subject, based on what they are, want and express, with the researcher's loving and intentional mediation of the pre-established constructs based on their importance for the participant's development.

Results and discussion

Getting to know Laura through the perspectives of her parents and school

At the initial meeting with Laura's parents, they reported that she is interested in practically any activity, but can't focus on one of them for more than a minute. The girl

generally interacts with objects, but switches interests almost instantly all the time, making it very difficult to play with her. They also reported her difficulty with effective communication – she speaks, but has problems with diction and speech elaboration. They mentioned how difficult it was for both parents to find time to teach her to play, since they had to worry about her physical subsistence, such as feeding, bathing, brushing her teeth, going to health and education services, all in the midst of their regular work. They also recounted the whole process of finding out about their daughter's syndrome and the uncertainty and anxiety about their future and whether their daughter will be able to become literate. Their feelings of love and appreciation for their daughter were evident throughout the conversation.

At the meeting with the team of professionals at Laura's school, which included the head teacher, the tutor and the pedagogical coordinator, we observed narratives very similar to those already made by her mother and father. They said how much Laura is liked by everyone, how affectionate and outgoing she is when dealing with her peers and school professionals, and how much they appreciate her. They pointed out the difficulty in getting Laura's attention and, when they did get it, they expressed the difficulty of sustaining that attention: "[...] when we get her to focus on an activity – all of them adapted – that focus lasts seconds and she gets distracted by anything, or knocks something over unintentionally because of her motor condition and gets distracted by it, or wants to tell something [...]". They also mentioned the difficulty in understanding her speech and her repetition of entire sentences. With regard to her play, they reported that she touched everything, but didn't play with anything, similar to the narrative of the research participant's parents. This narrative extended to other activities, in which Laura tinkers, but doesn't progress. They commented that Laura still seems to have no interest in typical school things, such as books, painting and writing materials, drawings, among others.

Probing the participant's development at the start of the research

Based on the reports from Laura's family and school, we began the sessions with the participant, focused on forming a bond between the researcher and the participant and assessing her development in the constructs of play, *letramento* and literacy, as well as understanding her interests and preferences. Table 1 shows the data obtained.

Table 1 - Participant profile: preferences, play, *letramento* and literacy

Objects of choice	Toys with images of the Canine Patrol characters – especially Canine Patrol figures and, in second place, unicorns. No other specific interests.
Play phase	Predominantly manipulative, but with insertions in imitations of everyday routines with favorite characters.
Letramento	She showed no interest in books or storytelling of any kind, not even video stories.
Literacy	No interest in materials that refer to the alphabetic writing system or free drawings, paintings...

Source: The authors, 2023.

During the probing period, which lasted from one session in February to two in March 2023, Laura had access to numerous toys, books and school materials. The materials ranged from random, unstructured toys and objects to structured materials and games. The books and school materials also followed this line, with a wide variety of shapes, colors and playful appeals. During this phase, the researcher dosed the offers, waiting for Laura to show interest or touch an object, proposing games with the materials and effusively encouraging the participant to join in the games, but Laura briefly stuck to each activity, explored sensory and motor skills and, little by little, went on to find other objects and toys.

The toys that Laura looked for the most and could stick to the longest were those related to the Canine Patrol, especially the character figures. She also stuck to the unicorn characters for a longer period of time, but when there was no Canine Patrol.

Thus, with regard to Laura's play, we can see that she is in the phase of manipulative play (Elkonin, 1960, 1987), in which the child sensorially and motorically manipulates toys and objects in general. This form of play precedes symbolic play (Vygotski, 2000; Leontiev, 2014) and, in typical children, the advanced transition to symbolic play begins around the age of three.

Between the phases of manipulative play and symbolic play, we have routine imitation play, in which the child begins to use toys and objects by imitating an action that they have seen being done with them, but still without the use of imagination and the substitution of one thing for another, such as using a saucepan lid to pretend to be driving a car, for example (Leontiev, 2014).

In this way, we infer that manipulative play is Laura's real development and routine imitation play is her proximal development, which corroborates the statements of her parents, her teacher and the monitor, who described situations of touching everything but not playing with anything, compatible with the manipulative play phase. It was possible to notice the transition to routine imitation play during the probing, due to the control of the clinical environment and the methodology used, which had not yet been possible to observe in Laura's natural environments due to the characteristics of these environments.

Based on the data obtained on Laura, we then tried to organize the intervention phase, starting by encouraging her to play imitations of routines, in order to transform this phase into real development and bring her closer to symbolic play. Leontiev (2014) explains that symbolic play is a precursor to the symbolic function, since the use of imagination in this form of play promotes the development of the mental symbolic function, which is fundamental to the writing process.

The participant's *letramento* processes were in line with the prehistory of writing (Vigotski, 2000; Soares, 2009), in which the gesture in the air, when used as effective communication, is the child's first form of writing. Thus, the use of communication in everyday life with an understanding of its social function is already considered a form of writing. This stage of literacy and *letramento* is consistent with their current profile in play, which was still much more manipulative than symbolic, which is fundamental for the next forms of expression of these processes.

Interventions: make-believe play, *letramento* and literacy

The intervention sessions focused on symbolic play, *letramento* and introduction to alphabetic principles, and also comprised the second stage of this study, which ran from March to October 2023. We worked through playful mediation with the participant, using *letramento* tools associated with symbolic play, starting with routine imitation play (her proximal development). Using Laura's favorite toys, we organized a set of activities inspired by the book *Alfaletrar* (Soares, 2020).

The activities were constructed in such a way as to become a sequential story based on actions and narratives with the toys. We began the process by working with Laura's favorite character, Skye, from Canine Patrol, who has a helicopter. This story was implemented little by little, first just by making Skye's flying movements, referring to manipulative play, which Laura has mastered autonomously; then by introducing a park setting with trees, making Skye fly over; later, we incorporated a toy cat into the park and then placed it on a toy tree, to then perform the action in which Skye saved the kitten, in other words, the closing of the story. Throughout the construction of the story until its conclusion, there was an organizing narrative of the actions and dialogues with Laura. At the end, after the story had been constructed in a concrete and active way, we put together a short story with images and some writing that Laura had already internalized, such as the word "Skye": "Once upon a time, Skye was flying in her helicopter when he saw a kitten crying in a tree. Skye saved the kitten and put it on the ground. And everyone was fine and happy!!!".

Laura began to adhere to this way of playing and so, as we progressed, we always started by manipulating all the materials on offer and then imitating a movement, such as pushing Skye's helicopter around the care room, so that she could then adhere to another movement and continue playing with the researcher. The bond between the participant and the researcher, together with the humanized approach, observing the real and proximal development of the participant, was fundamental for Laura to adhere to the proposal, since her development and affections were the founding elements of the entire research (Leontiev, 2014).

The sequence of work associating play, *letramento* and literacy was carried out in a systematized and progressive way (Soares, 2009). Each session with Laura was prepared in such a way as to build on the previous one and gradually increase the stimuli, but always consolidating her real development and working on her proximal development. Thus, elements were introduced to increase her repertoire of routine imitations, such as a wooden house in an appropriate size so that she could play with the characters from the Canine Patrol in routine situations, such as: sleeping, eating, bathing and going to school.

Once Laura had engaged in routine imitation play, in the playhouse, and had reduced her manipulative play, we introduced make-believe into the proposed activities, such as: taking the characters to school in a car toy, which was actually a shoebox, always using the phrase "let's pretend that...". From the moment we managed to set up a game with a story about going to school, we started introducing others, which included books, paintings, complementing stories using stickers and other materials, free drawings on a

wide variety of materials, such as walls, floors, boards, among others. We also diversified the range of pens, chalk, modeling clay and slime, but gradually, so as not to overload Laura. Entering school in a playful way was a fundamental point for introducing Laura to the relevant elements of this environment, which are fundamental for later starting the transition from the make-believe play phase to the phase where the main activity is studying (Elkonin, 1960, 1987; Vygotski, 2000; Leontiev, 2014).

In these initiatives, in which we created stories with the intention of getting her into illustrated books and/or school materials, referring to writing, Laura got off to a slow start; she didn't initially show any interest in leafing through books, or in writing (making graphic signs), even if they were scribbles on the walls, or listening to stories in illustrated books, with images in reliefs and others that usually appeal to children. So, respecting Laura's development, but intentionally mediating playfully so that she could become literate with books, we started the game with the story of Little Red Riding Hood, as Laura knew this tale from a children's party that used this theme. The story was then told in a way adapted to the participant's understanding and in a realistic way, with the characters made out of cardboard and with their own characteristics.

Afterwards, the story was told using the illustrated book and the same characters that had been used in the previous activity. In the end, we worked only with the illustrated book and then moved on to acting out the story, so that the researcher and Laura played the characters. In this proposal, Laura was able to let go of herself and pose as Little Red Riding Hood, the main character in the story, for about 5 minutes, returning, after this approximate time of play, to say that she was not the character, but "Laura".

The episode recounted above, of putting herself as a character in a story, even if only for a short time, as well as the use of a shoebox to pretend that it was the car that took the Canine Patrol characters to school, in a previous game, factually show the symbolic function being established and moving between proximal and real development (Vygotski, 2000), concomitant with *letramento* emerging (Soares, 2020).

The literacy activities, associated with make-believe games, proved to be very efficient, making it possible to develop the symbolic function and *letramento* simultaneously and with strategies that used toys, books and imagination in a harmonious way, based on the real and proximal development of the participant. Soares (2009) cites Vygotski in her text, stating that by using a sardine can to represent a train, the child is developing a cognitive operation that is a precursor and preparatory to the process of conceptualizing writing as a system of representation, as they are working mentally with what is not concretely placed, but represented by something that only makes sense in the mental representation.

Once Laura developed an affection for illustrated books and her symbolic function was emerging, we continued with mediations in which the books had short stories, which matched her development and preferences, but were incomplete, with the possibility of continuing with stickers, painting, superimposing figures and other techniques. Laura engaged with the stickers and so we worked on a few sessions, initially finishing the stories with the stickers, then making inferences in the stories with their help.

Following on from this learning, we began to encourage spontaneous painting and writing. The researcher used the painting and writing materials on various surfaces, such as paper of different sizes and weights, boards, walls and the floor. Laura became

interested in scribbling on the bathroom floor in the researcher's room, which is light-colored and has a tile-like appearance. She picked up some pens and started to scratch, but in a disorganized way and without any intention of drawing or writing, she just used the material and showed a desire to write, opening up a new level of proximal development (Luria, 1988; Vygotski, 2000).

Soares (2009) reports that common activities in early childhood education, such as scribbling, drawing, games and make-believe play, which are not considered to be literacy activities, are in fact the initial phase of learning written language or the prehistory of written language, alluding to the work of Vygotski. According to Vygotski (2000), scribbles and drawings, or objects that act as signs, are the child's discovery of a system of representation, precursors and one of the prerequisites for understanding the system of representation that is written language.

Also at this stage, we began working with the vowel letters, their sounds and spellings, in a playful way, using stories about the letters and oversized versions of their written forms. We also used letters with faces, or the letters themselves, telling their stories. All the work was playfully mediated and brought into line with Laura's real and proximal development.

Following this proposal to stimulate literacy, we moved from writing on the floor to writing on the walls, following Laura's lead in this transition, but making intentional mediations in this direction. From the walls, we moved on to thick A3 sheets and then A4 sheets; by the end of the interventions, Laura was able to use them while respecting the limits.

From drawings and scribbles with no clear intention, Laura went on to try to write the first letter of her name and paint pictures in books. Laura's real name begins with a vowel, another factor that encouraged her attempts. The participant is still in the process of learning to paint within the limits and being able to choose colors – she still tends to use the same color for the whole drawing and doesn't paint within the limits. However, she is managing to write the first letter of her name, sometimes with a format that is disproportionate to the size of the paper she is using, sometimes shakily, but, in any case, she is doing it with intention, showing affection for the act of writing and understanding its social function of representation (Vigotski, 2000; Soares, 2020).

The process of articulating Vygotskian theories – based on the premises of zones of development, mediation and symbolic function as precedents in the literacy process (Vygotski, 2000; Leontiev, 2014) – with Magda Soares' premises – on how to introduce the alphabetic writing system based on literacy (Soares, 2009, 2020) – proved to be effective and enjoyable for the participant in this research and for the researcher.

Survey of the participant's development at the end of the research

The development survey after the period of interventions with the participant was carried out in order to be able to observe the results of the intervention process relatively objectively, even though we already have a very illustrative overview in the reports of the process.

Table 2 - Participant profile at the end of the research: preferences, play, *letramento* and literacy

Objects of choice	First of all, "princess" toys and books; Secondly, unicorn books and toys.
Play phase	Make-believe play – routine imitations with elements of symbolic representation.
Letramento	A genuine and strong interest in books and stories.
Literacy	Interest in school materials, writing their name, drawing, painting…

Source: The authors, 2023.

In an interview with her parents, they both reported positive perceptions of their daughter's development and learning, such as a greater focus on toys, attempts to play make-believe at home, interest in and time spent with storybooks, interest in painting, drawing, covering dots, among other similar aspects. The parents were very happy with their daughter's progress and hopeful about her development.

The teacher and monitor were enthusiastic about the changes they had seen in Laura during the research period, in which she went from "messing around with everything, but not sticking to anything" to using school materials with intent, a genuine interest in books, followed by attempts to paint and write her first name. It was agreed that there was a combination of factors – family-school-research, working together for Laura's development, and especially the girl herself, who was open and cooperative in the interventions.

The monitoring of Laura's progress over the period of time covered by this research, together with the observations of the whole process and the comparison between the initial and final probing tables with Laura, revealed significant results that open the way for further studies along these lines to be carried out.

Final considerations

The main objective of this article is to discuss the process of introducing a child with atypical development to the alphabetic system of the Portuguese language, based on symbolic play and *letramento*, during the course of psycho-pedagogical support, using Vygotskian theory and the studies of Magda Soares as a theoretical basis. The main results were that, in terms of play, at the beginning of the study the participant was in the period of manipulative play and, at the end, she was moving between imitating routines and symbolic play, showing considerable progress in this construct. As far as *letramento* is concerned, this accompanied the development of the symbolic function, in line with the literature on the symbolic function invested in this learning, which was worked on in play and in interventions with storybooks, so that the participant started from a point where she was not interested in books and evolved towards an affection for storybooks and playing at interpreting them.

Following this line of evolution, the introduction to the Portuguese writing system also developed noticeably. The participant went from denying school materials, only making fleeting scribbles on the floor, to trying to write the initial letter of her own name, attesting to the importance of the environment's offerings, in order to meet the child's development and promote intentional and humanized interventions. This must happen without the pretension of "normalizing" the child, promoting their development, allowing and stimulating their potential.

With regard to the humanized approach, we reiterate its importance in teaching children with atypical development. Working with children based on their desires and the way they express them, making intentional and affectionate mediations to meet the child's own development, in a personalized way, is fundamental for them to develop fully.

It should be noted that this research was a single case study, appropriate for rare clinical cases, which is the condition of the child who took part in the study. However, this condition in terms of research is also a limitation, since it does not open up the possibility of generalizations. Furthermore, as such cases are extremely complex, some constructs were chosen to work on in the research to the detriment of others, which also leads to a limitation in the study.

Furthermore, despite its limitations, this research aims to open up possibilities for psycho-pedagogical support and the teaching of children with disabilities. From the above, we can see that psycho-pedagogical interventions based on the articulation between Vygotskian theory and Magda Soares' studies, especially in cases where the aim is to intervene in the constructs of symbolic play, *letramento* and literacy, carried out in a humanized way to meet the development of children with disabilities, are a real possibility for learning and development for these individuals.

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