Communication of Children of Preschool and School Age during Distance Learning in the Conditions of COVID-19*

Спілкування дітей дошкільного та шкільного віку в процесі дистанційного навчання в умовах COVID-19**

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ABSTRACT

Introduction. The article presents the results of a study aimed at understanding how communication occurred among children of preschool and school age during distance learning in the time of the COVID-19 pandemic. The study was based on the ideas of Vygotsky, the founder of cultural-historical theory, in which communication plays a fundamental role in human development, especially in childhood, as it influences the formation of consciousness and personality.

Methods and Research procedure. The main research method was a survey of parents. A questionnaire was prepared on the Google Digital Platform, which consisted of 26 questions. From the obtained answers, those directly related to the research object were analyzed, leaving aside other data that will be the subject of analysis in the study. Sixteen respondents participated in the survey. The questionnaires were filled out not only by parents but also by other relatives of children who were undergoing distance learning in preschool and school institutions (both public and private) during the pandemic. Since many children lost their parents due to COVID-19, it was decided that these relatives could also participate in the study. It was important for us that these individuals were responsible for the upbringing of the children.

Results and Conclusions. After analyzing the obtained answers, it can be said that the pandemic has generated significant problems for preschool institutions, schools, and families of children. It has also shown a great variety of forms for continuing children's education proposed and implemented by preschool institutions and schools. Furthermore, it can be affirmed that the younger the child, the more difficult it was for them to communicate with their peers during distance learning.

Key words: preschool children, cultural-historical theory, communication, distance learning, pandemic.

Introduction

L. Vygotsky (2001) claimed that communication plays an important role in child development, as it is connected to the formation of consciousness and personality. According to Vygotsky (ibid.), human consciousness emerges and develops in communication and is shaped through the historical and cultural development of society. Experiences in certain situations influence children's communication during their development. In face-to-face classes, it is possible to observe how children, from a very young age, communicate with their peers and teachers when they participate in different emotionally charged activities. Communication between children often arises spontaneously and develops with or without direct guidance from adults. Social isolation became a necessary measure to combat the spread of the COVID
virus and brought changes to the organization of educational work in preschool and school institutions, which introduced distance learning to continue classes with children. Considering that distance learning differs significantly from face-to-face learning in its forms of organization, dynamics, and teaching strategies, the goal of our research was to study the communication of children during the period of distance learning, which came into effect in preschool and school institutions in Brazil due to the COVID-19 pandemic. Important research questions of the scientific project included:

RQ 1. How did distance learning (especially through digital platforms and applications) enable children to communicate with each other?

RQ 2. According to parents, how did distance learning affect the development of communication among children?

RQ 3. What is the role of adults in distance learning?

RQ 4. What communication difficulties arose for children in their interactions with each other and with adults (teachers and parents) during distance learning?

RQ 5. How did communication occur during classes through digital platforms and applications, and did children communicate outside of classes?

RQ 6. What positive and negative aspects did parents observe in the distance learning of their children?

Theoretical Foundations of the Research

Based on the ideas of L. Vygotsky, studies were conducted on the communication of children who were engaged in distance learning during social isolation caused by the COVID-19 pandemic.

The cultural-historical theory developed by Vygotsky emerged in the early 20th century and revolutionized the perspective on the study of human development. In Brazil, the ideas of this psychologist began to develop in the early 1980s through North American translations, which significantly distorted Vygotsky's scientific ideas by adding and omitting entire paragraphs (Prestes, 2012). Many important scientific concepts were translated in a dismissive manner, leading to distorted interpretations of fundamental topics.
In relatively recent works, attempts have been made to discuss the problem of translating L. Vygotsky’s works in the West, and there is now a considerable amount of research that not only discusses translation issues but also, based on new translations, highlights the need to correct errors and distortions introduced by poor translations. It is important to note that this study is based on new translations and explores a concept that is fundamental to the study of human development (Tunes, 2015).

One of the important concepts in Vygotsky’s cultural-historical theory, among many others for the study of child development, is communication (Prestes, 2018). It is known that communication requires understanding: children must understand each other and be understood by others. This is not simple communication but a very important speech activity. According to L. Vygotsky, human consciousness emerges and develops in communication and is formed through the historical and cultural development of society. Experiences in certain situations influence children’s communication during their development. The thoughts of L. Vygotsky on the importance of speech in communication, as presented in the book “Thought and Language” (2001), serve as the theoretical foundations of this research.

The initial function of speech is a communicative function. Speech is primarily a means of social communication, a means of expression and understanding. In analyses that break it down into elements, this function of speech is usually separated from its intellectual function, and both functions are attributed to speech as if they were parallel and independent of each other. Speech combines both communicative and thinking functions, but the relationship between these two functions, what determines the presence of both functions in speech, how their development occurs, and how they are structurally interconnected – all of this has remained unexplored until now (Vygotsky, 2001: 13).

Communication based on rational understanding and intentional conveyance of thoughts and experiences necessarily requires a certain system of means, with human speech being the prototypical example that emerged from the need for communication in the process of labor (Vygotsky, 2001: 14).

Communication necessarily involves generalization and the development of meanings, i.e., generalization becomes possible through the development of communication (Vygotsky, 2001: 14).
Based on the provided quotes, one can observe the important role that L. Vygotsky assigns to speech and its initial communicative function in the process of a child’s development. Speech transforms into a tool of social communication. In other words, communicative activity is realized through speech, which emerges in development due to the necessity of intentionally conveying something and aiding in the formation of generalization. Based on these considerations, it is important to note that the relationship between an adult and a child, their communication, serves as a source of psychological development. Therefore, the social world and the people surrounding the child are necessary conditions for child development (Smirnova, 1996). The importance of the adult’s role in child development is not limited solely to providing necessary assistance in meeting the child’s needs but also in creating conditions for their survival. In constant communication with the child, the adult lays the foundation for psychological development (Kravtsova, 2009).

**Methods and Research Procedure**

For the survey, a questionnaire consisting of 26 questions was prepared on the Google Digital Platform (Appendix A). From the obtained responses, we analyzed those directly related to the object of our research, setting aside other data that will be the subject of our analysis later. Sixteen respondents participated in the survey. The questionnaires were filled out not only by parents but also by other relatives of children who were undergoing distance learning in preschool and primary school institutions (both public and private) during the pandemic. Since many children lost their parents to COVID-19, it was decided that these relatives could also participate in the research. It was important for us that these individuals were responsible for the upbringing of the children.

Two questionnaires had to be removed as they were not completely filled out.

The collected data from 14 questionnaires were distributed according to the number of children, the stage of education (preschool or primary school), and the type of educational institution (private or public):

- Four preschool children attended private kindergartens.
Seven school-age children attended private schools.
Three school-age children attended public schools.
Unlike the preschool children who were all from private institutions, i.e., 100%, the school-age children were distributed among different types of institutions as follows: 70% attended private schools and 30% attended public schools.

Results and Discussions

Considering that the research results are based on a low number of questionnaire responses (only 14), it is important to note that this fact still allows for some diversity in the organization of distance learning during the pandemic to be observed. Analyzing the data, almost 40% of institutions immediately switched to distance learning through digital platforms, nearly 28% distributed textbooks to students’ homes, 27% started sending videos through digital platforms or applications, and the remaining 5% took a long time to plan on what to do. It is important to note that in Brazil, there are two school networks – public (state-funded and free) and private (privately funded by individuals or organizations).

Based on the obtained data, it can be said that the younger the child (preschooler), the less digital platforms were used for online lessons. Preschoolers mainly received videos through their parents' smartphone applications or various didactic materials for home use. On the other hand, school-age children, especially those in private schools, primarily received education through digital platforms, which was not the case in many public schools. However, it can be noted that with the small number of responses received, different forms of organizing distance learning by schools were observed. But depending on whether it was a private or public school, one form of education predominated over the other since this aspect is related to the problem of access to technological resources (computers, internet, smartphones) for both teachers and families.

All the answers received about preschoolers are related to children attending private kindergartens, which were able to quickly transition to distance learning. It should be noted that private institutions are usually attended by families with good economic status and
the necessary technological equipment for accessing distance learning. However, the responses obtained still showed that preschoolers rarely engaged in online activities. One parent even mentioned not allowing their child to access a computer or smartphone screen. This parent explained that even before the pandemic, they did not permit their child to use gadgets as they believed they could have a negative impact on their health.

It should be noted that the network of public preschools in Brazil is still insignificant, and they are mostly attended by children from poor families who usually do not have a computer or only one smartphone for the whole family, often without access to the internet or Wi-Fi. The pandemic has revealed the neglect of the government towards public preschools. Therefore, the lack of necessary equipment for organizing distance learning resulted in many preschoolers being left without education during the pandemic. They only occasionally received videos from their teachers with some activities or fragments of lessons. Although systematic distance learning was organized, the main obstacle was access to the necessary technologies.

Analyzing the responses obtained, it can be observed that distance learning for preschoolers in private preschool institutions was offered without specific criteria, methods, and planning. Some institutions simply transformed face-to-face lessons into lessons through digital applications and platforms, and occasionally (very rarely) organized “meetings” between teachers and children as their resources allowed. Other kindergartens recorded videos and sent them to families through digital applications, requesting parents to ensure that at least some tasks were completed. Some institutions required parents to record videos of their children while watching and doing the assignments. Some institutions sent educational materials to children's homes, or parents had to personally pick up these textbooks from the kindergarten to complete the tasks with their children.

Each family with preschool-age children has a unique opinion about distance learning during the pandemic, but they all unanimously responded that there was almost no communication among the children (neither between children, nor between children and teachers or caregivers), even when it was rarely organized on a digital platform. Furthermore, all respondents indicated that, in their opinion, distance learning has a negative impact on the development of
preschool-age children. When asked about how distance learning affected their child, different responses were received, including aggressive behavior, sadness, unwillingness to engage in activities, and fatigue.

When asked if preschoolers had remote interactions with their peers or friends for games or conversations, all families responded negatively. Regarding whether the caregivers devoted time to individual communication with the children, all answered that it did not happen because there were hardly any online meetings, and everything was coordinated through parents for task completion, which was distributed via digital applications. Preschool-age children had very little interaction with their peers and caregivers. Only one family mentioned occasional video communication with other family members.

Out of seven families with children of school age in private schools, almost all of them responded that the schools quickly transitioned to distance learning, and only one respondent mentioned that the school “took a long time to make a decision”. Out of the seven children, five (72%) were engaged in remote learning, and two (38%) received lessons through video recordings from their teachers. In the latter case, all the lessons took place without any communication with the teacher or other children.

Out of the seven responses received, four families (57%) stated that their children completed assignments with their assistance and described the difficulties of balancing their own work responsibilities (at home and in the workplace) with their children’s remote learning and educational activities. When asked if remote learning had any negative impact on their children’s social interactions, four parents (57%) answered that all channels of communication among children were disrupted. One parent (14%) mentioned that their daughter had already stopped communicating with classmates even before the pandemic. Another parent (14%) stated that communication between children had significantly decreased, and one more parent (14%) said that communication continued through online games and videos on digital platforms and applications.

Interestingly, when asked if children arranged “meetings” with each other, most parents (5/7) (72%) responded positively. At first glance, this may seem contradictory to the previous answer. However, since the question was answered with simple “yes” or “no” responses, it can be inferred that while they planned for meetings, it does not necessarily mean that these meetings took place. We believe that
the absence of a school environment (separation from friends) became an important factor in determining the actual “friendship relationships” among children, and only one family was able to observe this.

In public schools, when analyzing responses from parents of students, some specific details were identified. Most schools distributed textbooks to their students’ homes, replacing digital platform-based remote learning. These materials included assignments that students were expected to complete at home and return at the end of the semester for evaluation. These schools also made video recordings of lessons for students, but this option was not mandatory and served as additional support to the textbooks. Some schools had textbooks as well, but at the same time, they organized remote learning on digital platforms to explain the assignments in the textbooks.

During the social isolation from school and places where children could interact, some families hired tutors for their children to help them learn faster or assist with assignment completion. This was not only due to the difficulties of parents juggling their work and monitoring their children’s assignments but also because of the lack of necessary technology (computers, smartphones, and internet access) in these families, most of which belonged to the impoverished population.

In most cases, lessons in schools during the pandemic were conducted through digital platforms. Since these were children between the ages of 8 and 15, they independently “met” and communicated, and of course, this could not be disregarded as a form of communication in the present reality in which we are immersed. Interestingly, children from these families scheduled “meetings” through digital applications when the opportunity arose, and 3/5 (60%) of the families reported that these children used digital platforms to have conversations with friends and maintain the friendships that existed prior to the pandemic.

Another interesting finding was obtained in response to the question, “Through which channels did children ‘communicate’ or arrange meetings, games, and conversations?” It was revealed that this mostly occurred through two channels: WhatsApp or Google Meet. 80% of the communications happened on a weekly basis, while 20% occurred occasionally.

If we look at the data globally, including preschools and schools, we can observe the prevalence of teaching through didactic materials (for preschoolers) and textbooks (for students), which were sent home
(83.3%) and online lessons (77.80%). This is because most educational institutions before the pandemic conducted teaching directly using these materials but incorporated some work on digital platforms or applications into their instructional methods, considering that most children attended private preschools and schools.

**Conclusions**

The pandemic has caused significant challenges for preschools, schools, and families of children. Depending on whether it was a private or public educational institution (preschool or school), the problems varied. It is worth noting the wide variety of forms for continuing children’s education that were proposed and implemented by preschools and schools. According to families, the younger the child, the more difficult it was to observe their interaction with peers during distance learning. This is not only influenced by family choices but also by the forms of educational organization during the pandemic, which involved digital applications, textbooks, or video recordings.

**ADHERENCE TO ETHICAL STANDARDS**

**Ethics Declarations.** Participation in the study was voluntary. All participants were informed about the study, and the anonymity of the responses was strictly observed in the analysis of the data. All procedures involving human participation are carried out in compliance with the ethical standards established by the University Ethics Committee. The study was approved and funded by the State Grants Organization CNPq.

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**Author’s Contribution.** The research and writing of the article is the result of a team effort. All authors took part in the organization of the project, in the preparation of the questionnaire, in the analysis of data, in the study of the bibliography and in the writing of the article.

**Consent for Publication.** The authors agree with the publication of the article, observing the rules of the journal.

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References


APPENDIX A
Questionnaire for Parents

Dear parents!
We are conducting a study, funded by CNPq/UFF, to investigate how children communicate during distance learning during the Covid-19 pandemic. Distance learning and face-to-face learning have different forms in their dynamics and strategies. Our research aims to find out how distance learning enables children to communicate. By communication we do not mean simple communication. It is important for us to find out how the children communicated with each other and with teachers during distance learning. If you are responsible for a child of preschool and school age who studied remotely in 2020 and 2021, please fill out the questionnaire by answering our questions. The obtained information will be confidential and will help the development of our research. We thank you in advance for your cooperation and remain at your disposal for any questions you may have.

Questions:
1. How old is your child?
2. How many preschool/school age children are under your responsibility?
3. Does your child attend a private or public institution?
4. At what stage of education is the child now?
5. What grade was your child in March 2020?
6. If the child is currently attending kindergarten, we are interested to know if he attended the institution before the pandemic?
7. If you answered no to the previous question, please tell us briefly how the child reacted when he started attending kindergarten for the first time, when he switched to face-to-face classes?
8. What measures did the kindergarten/school take when the pandemic started?
9. When your child’s kindergarten or school came to remote learning, what technology did you have access to complete the activities offered by the kindergarten or school?
10. Were the proposed activities carried out by the child on their own or with the help of adults? Please describe.
11. Was constant supervision of an adult necessary while the child was performing tasks remotely?
12. If the answer to the previous question is yes, please indicate how long your child was connected to school activities (from lessons to tests) per day?
13. Were there other online activities (birthday parties, online games, video chats, etc.) that your child has been involved in? Please describe.
14. What activities were offered by the kindergarten/school?
15. If your child attended a kindergarten/school before the distance period, did he keep in touch with classmates? (Playground, birthdays, visits to other colleagues’ houses, family outings, etc.).
16. Did these communication and friendships arise during distance learning? How did they appear and be maintained?
17. Has your child had virtual meetings with friends outside of school hours?
18. If the answer to the previous question is yes, what channels did this take place through?
19. If the answer to the previous question is yes, how often did this meeting take place?
20. How did this contact occur between the children (did they set the time of the meeting, how long was it, were they instantaneous)?
21. How did the relationship develop between the teacher and the child during school classes in the virtual classroom (the teacher
answered his questions, led dialogues, allowed the students to talk to each other)?

22. Was the teacher eager to respond to your child’s needs outside the classroom?

23. Did the children interact with each other in the virtual classroom? Describe how the teacher felt about this fact (made comments, disapproved or participated in the conversation, etc.).

24. In your opinion, has distance learning harmed your child’s development of communication with other children, other classmates, and teachers?

25. Please indicate how this manifested itself in your child?

26. How is this reflected in your child’s face-to-face education today? How does this show up in child’s behavior?

АНОТАЦІЯ

Вступ. У статті представлено результати дослідження, метою якого було вивчити, як відбувається спілкування дітей дошкільного та шкільного віку у процесі дистанційного навчання під час пандемії Covid-19. Дослідження проводилося на основі ідей Л.С. Виготського, засновника культурно-історичної теорії, у парадемійній - спілкування відіграє фундаментальну роль у розвитку особистості, особливо в дитинстві, тому що впливає на формування свідомості та особистості загалом.

Методи та процедура дослідження. Основним методом дослідження було опитування батьків. Для опитування було підготовлено анкету на Цифровій Платформі Google, яка вміщувала 26 запитань. З отриманих відповідей були проаналізовані ті, котрі прямо були стосувались об’єкта дослідження, залишаючи стороні інші дані, які ще будуть об’єктом аналізу наступних досліджень. В анкетуванні взяли участь 16 респондентів. Анкети було заповнено не тільки батьками, а й іншими рідними дітей, які навчалися дистанційно в дошкільних і шкільних установах (державних та приватних) під час пандемії. Оскільки багато дітей втратили своїх батьків від Covid, було ухвалено рішення, що найближчі рідні дітей також можуть брати участь у дослідженні. Для нас було важливо, щоб опікуні дітей відповідали за виховання дітей.

Результати та висновки. Після аналізу отриманих відповідей, було зроблено висновки, що пандемія породила великі проблеми дошкільного навчання, школи та сім’ям дітей, особливо у галузі організації спілкування, а також показала велику різновидність форм продовження навчання дітей, запропоновані та реалізовані дошкільними установами та школами. Крім цього, можна стверджувати, що менша за віком дитина, то важче їй спілкуватися з’є своїми однолітками під час дистанційного навчання.

Ключові слова: діти дошкільного віку, культурно-історична теорія, спілкування, дистанційне навчання, пандемія.