

# Ludic practices of statistical literacy in the early years of Elementary School in the light of Critical Mathematics Education<sup>1</sup>

*Maria Caroline Silveira<sup>2</sup>*

*Luciane Mulazani dos Santos<sup>3</sup>*

*Lucilene Lisboa de Liz<sup>4</sup>*

## ABSTRACT

This article presents an experience report from a literacy project from the perspective of Critical Mathematics Education carried out with a class of twenty-four children in the second year of Elementary School at a public state school in the state of Santa Catarina. The project is called Vila dos Números and is part of a study that is in progress in a doctoral course in Education. In the excerpt, statistical literacy practices are reported, which are placed before the key concepts of background, foreground, invitation and dialogue arising from Critical Mathematics Education. In this way, training for citizenship is debated based on statistical literacy for reading the world and for solving problems that are part of reality.

**KEYWORDS:** Statistical literacy. Critical Mathematics Education. Citizenship. Teaching and learning project. Pedagogy.

---

<sup>1</sup> English version by Silvia Iacovacci. E-mail: [siacovacci@gmail.com](mailto:siacovacci@gmail.com).

<sup>2</sup> Master's Degree in Science, Mathematics and Technology Teaching. Santa Catarina State University, Joinville, SC, Brazil. UNIEDU/FUMDES Scholarship Program-Postgraduate Studies of Santa Catarina State. Orcid: <https://orcid.org/0000-0002-2656-6083>. E-mail: [profmariacaroline@gmail.com](mailto:profmariacaroline@gmail.com).

<sup>3</sup> PhD in Education. Santa Catarina State University, Florianópolis, SC, Brazil. Orcid: <https://orcid.org/0000-0001-7617-7310>. E-mail: [luciane.mulazani@udesc.br](mailto:luciane.mulazani@udesc.br).

<sup>4</sup> PhD in Linguistics. Santa Catarina State University, Florianópolis, SC, Brazil. Orcid: <https://orcid.org/0000-0003-3767-8299>. E-mail: [lucilene.liz@udesc.br](mailto:lucilene.liz@udesc.br).

*Práticas lúdicas de alfabetização estatística nos anos iniciais do Ensino Fundamental à luz da Educação Matemática Crítica*

**RESUMO**

Este artigo apresenta um relato de experiência oriundo de um projeto de alfabetização na perspectiva da Educação Matemática Crítica realizado com uma turma de vinte e quatro crianças do segundo ano do Ensino Fundamental de uma escola estadual pública do estado de Santa Catarina. O projeto chama-se Vila dos Números e faz parte de um estudo que está em andamento em um curso de doutorado em Educação. No recorte, são relatadas práticas de alfabetização estatística as quais são situadas perante os conceitos-chave de *background*, *foreground*, convite e diálogo advindos da Educação Matemática Crítica. Dessa forma, são postos em debate a formação para a cidadania a partir da alfabetização estatística para leitura de mundo e para a solução de problemas que fazem parte da realidade.

**PALAVRAS-CHAVE:** Alfabetização estatística. Educação Matemática Crítica. Cidadania. Projeto de ensino e aprendizagem. Pedagogia.

*Prácticas lúdicas de alfabetización estadística en los primeros años de la Enseñanza Fundamental a la luz de la Educación Matemática Crítica*

**RESUMEN**

Este artículo presenta un relato de experiencia de un proyecto de alfabetización en la perspectiva de la Educación Matemática Crítica realizado con una clase de veinticuatro niños del segundo año de la Enseñanza Fundamental de una escuela pública estatal en el estado de Santa Catarina. El proyecto se llama Vila dos Números y es parte de un estudio que se encuentra en proceso en un curso de doctorado en Educación. En el recorte se relatan prácticas de alfabetización estadística, que se sitúan ante los conceptos clave de *background*, *foreground*, invitación y diálogo surgidos de la Educación Matemática Crítica. De esta forma, se debate la formación para la ciudadanía a partir de la alfabetización estadística para leer el mundo y para resolver problemas que son parte de la realidad.

**PALABRAS CLAVE:** Alfabetización estadística. Educación Matemática  
Crítica. Ciudadanía. Proyecto de enseñanza y aprendizaje. Pedagogía.

\* \* \*

### **Statistics education in the early years of elementary school and critical mathematics education**

In this article, we present an experience report on the Vila dos Números (Village of Numbers) project, aimed at the literacy of children in a second grade class at a public school in southern Brazil. We are doing this as part of a doctoral research project underway in a Postgraduate Program in Education at a public university in the south of the country, developed by the first author of this article, under the guidance of the others.

"Before the 1980s, statistics and related subjects, such as probability and combinatorics, were only offered for the final years of elementary school and secondary school" (GITIRANA, 2014, p. 7), i.e. they were not taught to students in the first years of elementary school. Over time, guideline documents - first the National Curriculum Parameters (NCPs) for Mathematics (BRASIL, 1997) and then the National Common Curriculum Base (NCCB) (BRASIL, 2018) - have guided a change in the Brazilian education curriculum to modify this scenario.

Under the NCPs (BRASIL, 1997), which guided the curricula until the approval of the NCCB (BRASIL, 2018), the content was divided into blocks: (1) Numbers and operations; (2) Space and form; (3) Quantities and measures and (4) Treatment of information, the last of which covered the proposal for teaching statistics. According to the NCCB (BRASIL, 2018), statistics now occupies a space within the unit called "Statistics and probability", which makes up the set along with the other four: Arithmetic, Algebra, Geometry and Quantities and measures.

Cazorla et al. (2017) explained that in the NCPs (BRASIL, 1997), the purpose of the Treatment of Information block was to:

Lead students to: build procedures for collecting, organizing and communicating data; use tables, graphs and representations that frequently appear in everyday life; calculate some measures of central tendency; establish relationships between events; make predictions and observe the frequency with which an event occurs. (CAZORLA et al., 2017, p. 15).

In the NCCB (BRAZIL, 2018), the Probability and Statistics thematic unit continues with this aim, proposing an approach to concepts, facts and procedures that are present in many problem situations in everyday life, science and technology, placing research as the main axis in the development of statistical thinking, since "[...] planning how to do research helps to understand the role of statistics in students' daily lives". (BRASIL, 2018, p. 275). One factor that explains this change is the contemporary understanding that at all times and in all places, children are surrounded by experiences that require them to learn how to research, collect, represent, analyze data and thus solve problem situations in their daily lives. The NCCB (BRAZIL, 2018) also mentions that mathematical knowledge is necessary "[...] because of its wide application in contemporary society, and because of its potential for training critical citizens who are aware of their social responsibilities." (BRASIL, 2018, p. 265).

Thus, in terms of the changes to the national curriculum guidelines for Brazilian Basic Education over time - from the NCPs (BRASIL, 1997) to the NCCB (BRAZIL, 2018) - there have been advances in the field of

Statistics Education<sup>5</sup> that open up space for greater discussion about its interface with Critical Mathematics Education.

Critical Mathematics Education proposes to discuss Mathematics Education topics in their relationship with society. For example, democracy, citizenship, social justice and respect are themes that Skovsmose (2001, 2008, 2014) argues should be debated and practiced by Mathematics Education from the perspective presented by Alro and Skovsmose (2021, p. 18):

Critical Mathematics Education is concerned with how mathematics in general influences our cultural, technological and political environment and with the purposes for which mathematical competence should serve. For this reason, it not only aims to identify how students most efficiently come to know and understand the concepts of, say, fractions, functions and exponential growth. Critical Mathematics Education is also concerned with questions such as "how learning mathematics can support the development of citizenship" and "how the individual can be empowered through mathematics".

The debate on Critical Mathematics Education revolves around some key concepts. Among them, those that underpinned the development and application of the experience reported in this article were background and foreground (SKOVSMOSE, 2014) and invitation and dialog (ALRO; SKOVSMOSE, 2021).

From the perspective of Critical Mathematics Education (SKOVSMOSE, 2014), background is what a student brings to school from the life and history they have built up in other different spaces and

---

<sup>5</sup> At this point, we want to emphasize that the mention we made of the NCPs and the BNCC in the introduction to this article is merely a presentation of a timeline that shows the changing "place" of the mention of statistics in these documents. In this section, we are not discussing the various (predominantly negative) criticisms we could make, as teachers and researchers, about these documents and their constitution as guidelines for Brazilian education, as the article focuses on experience reports.

contexts. It therefore relates to prior knowledge. Foreground, on the other hand, refers to future prospects, i.e. what is new or reworked that a student is interested in knowing and understanding, what they want and dream of achieving.

The concepts of invitation and dialog (ALRO; SKOVSMOSE, 2021) are associated with a commitment to democratic teaching in the relationship with students, respecting the interests of all those involved. Skovsmose (2001, p. 18) argues that "[...] if education aims to develop critical competence, such competence cannot be imposed on students". Thus, invitations to develop proposals made by teachers are expected to be welcomed by their students who, in a dialogical and critical way, get involved together in finding solutions to problems that matter to everyone.

Although we have characterized these keywords in the context of school education, it is important to stress that the scope of Critical Mathematics Education is not restricted to it, since democracy is not (and could not be) restricted to the internal spaces of the school. On the other hand, democracy cannot be sought and practiced outside of school and denied within it. This is an issue so dear to Critical Mathematics Education that it is characterized as such by Skovsmose (2001, p. 46):

Macro-level democratic actions must be anticipated at the micro level. This means that we cannot expect to develop a democratic attitude if the school system does not contain democratic activities as its main element. If we want to develop a democratic attitude through Mathematics Education, the rituals of this education cannot contain fundamentally undemocratic aspects. Dialogue between teachers and students plays an important role.

In this way, the issues raised by Critical Mathematics Education support the discussion on how school mathematics can work towards a more democratic, fair and equal education. Skovsmose (2001) proposes approximations between Mathematics Education and the concept of democracy in approaches that privilege an idea of education that is oriented towards problems contextualized by situations experienced outside the classroom and, furthermore, points out that "[...] references to real life seem to be necessary to establish a detailed reflection on the way mathematics can operate in our society." (SKOVSMOSE, 2008, p. 38).

It was through the lens of Critical Mathematics Education that the Vila dos Números project was developed and implemented, as described in the following section.

### **The project: The Village of Numbers**

According to Lopes (2012), "[...] children read the world and question what they see [...]" (p. 164) and "[...] they have the right to learn to analyze the situations they experience from their childlike perspective and to assign values that arise from their perceptions." (p. 165). To this end, "[...] we need educational spaces in which they can express their doubts and socialize their hypotheses and answers [...]" (p. 164) and "[...] it is up to the adult to present considerations so that they acquire an ethical education marked by autonomy and authority" (p. 165). (p. 165).

Lopes' (2012) comments were the motivation for the development of the Vila dos Números project, from the perspective of critical mathematics education, respecting the universe of children's play.

The Vila dos Números project was built and applied in a 2nd grade class - from a public state school in Santa Catarina - with twenty-four children, aged between seven and eight years. The activities took place during the school year 2022, from March to November. It's worth noting that the project was not only the result of the doctoral research in

progress, but also of the needs of the researcher, who was the class teacher at the time, when she noticed, at the beginning of the school year, the learning gaps and difficulties of the students, in a post-COVID-19 pandemic context. As such, the project was designed to help them get back on track, especially considering that the beginning of the literacy process, during the period in which they were completely removed from the face-to-face school environment.

The project's activities were not limited to working with mathematical or statistical concepts or content, as the approach adopted favored the integration of different knowledge and curricular components, as well as playfulness as a basic principle.

In this article, we have chosen to present an experience report on a part of the project's activities in order to propose a reflection on children's statistical literacy. Vila dos Números is a mini-city with places that represent spaces and establishments that are part of a real city: a bank, a design store, a library, a fruit store, a game store, a stationery store, a candy store, an amusement store, a cinema, a bakery and a surprise store. Figure 1 shows the model of Vila do Números built by the children who participated in the two-stage project.

**FIGURE 1:** Mock-up of the Number Village in the classroom.



Source: survey data (2022)



In the first stage, the Vila dos Números (Number Village) was built during class by the children, gathered in groups, with the teacher's guidance. Figure 2 illustrates this process. The process of creating the stores in Vila dos Números began with sketches, which then served as the basis for building the models using cardboard boxes, paper, paints, pens and cut-outs.

**FIGURE 2:** Sequence that exemplifies the creation of the models.



Source: survey data (2022)

The images at the top of Figure 2 show the construction of the fruit shop. Once the models were ready, the groups wrote the nameplates for each store using cut-out letters to make up the words. Each group created a sign for the store they created.

The images at the bottom of Figure 2 show the creation of the library sign and the bakery with its sign on the façade. Throughout this process, the groups discussed the best strategies for carrying out their work in order to achieve the goal of building their stores.

Once all the models were ready, they were placed on tables at the back of the classroom (Figure 1) to be used throughout the project. Also at this stage, the teacher explained to the children how the Number Village would be used in the class lessons.

In the second stage, the children experimented with the stores they had helped to build. Considering the possibility of literacy in the

light of the foundations of Critical Mathematics Education for a critical and civic education of the children, the interaction with Vila dos Números was based on simulating situations of buying and selling products and services using a currency created for this purpose, the estaleca<sup>6</sup>. Thus, the monetary system of the Village of Numbers was made up of coins representing 1, 2, 5 and 10 steps, in different colors, which were used in the various commercial transactions carried out in the mini-city.

The children received coins when they fulfilled the agreements made with the teacher, solved mathematical challenges and could spend them buying products or services in the various establishments. Figure 3 shows the slides that the teacher used to introduce the coins to the children, the poster that was put up in the classroom to remind them of the ways to win and lose the coins and an example of a child handling them.

---

<sup>6</sup> According to the Priberam dictionary, estaleca is a synonym for money. <https://dicionario.priberam.org/estaleca>

**FIGURE 3:** Presentation of the use of the Numbers Village coin.



Source: survey data (2022)

In Figures 4 and 5, through the presentation of the activity involving the bakery, we illustrate the dynamics involved in opening each of the stores in the Numbers Village: the teacher provided the necessary resources, products and materials, "opened" the store and put its products or services

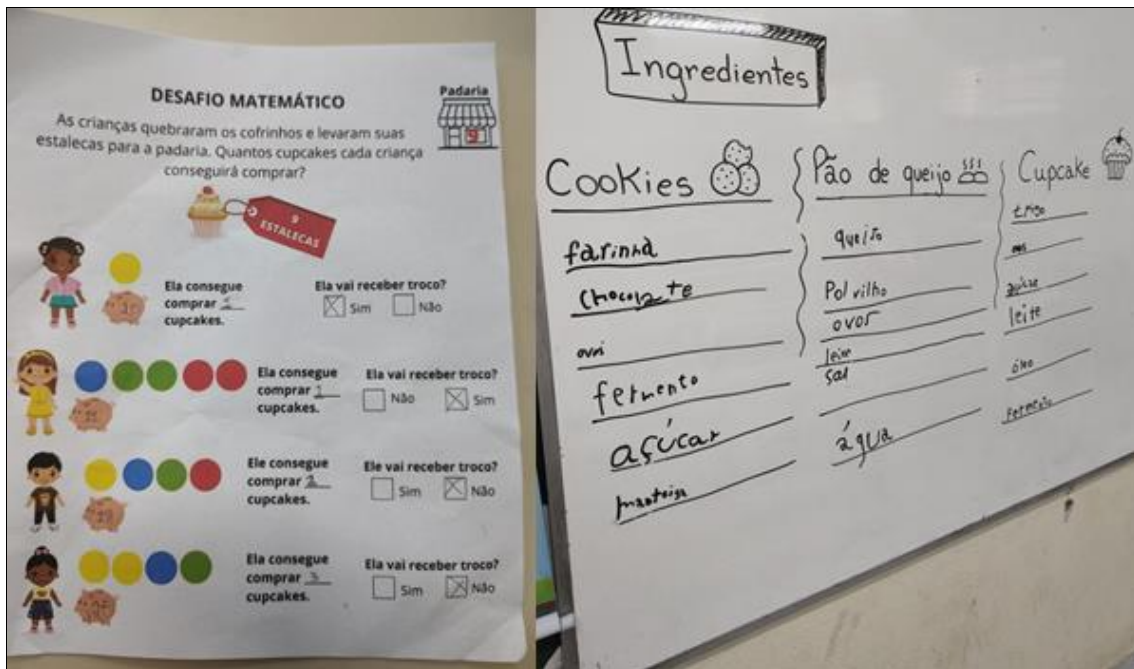
on sale; the students took their envelopes containing their savings in tokens, chose what to buy, analyzed it, combined their tokens to make the payment in tokens, enjoyed their purchases and reorganized their tokens.

**FIGURE 4:** Sequence that exemplifies activities in the stores.



Source: survey data (2022)

**FIGURE 5:** Examples of activities following the opening of the stores.



Source: survey data (2022)

As illustrated in Figure 5, after the end of the experiences in the stores, the students took part in contextualized activities where they produced meanings for the proposals made by the teacher. In the example, there is a challenge involving mathematical operations and written text production, in Portuguese in the recipe genre, with themes contextualized with the open store, the bakery. The children were paid up to ten tokens for carrying out these activities, to be added to their savings for later use. This was part of the agreement with the teacher (Figure 3), as was losing tokens when they didn't do the tasks. We would point out that the teacher chose to relate the fact of winning or losing to the children's daily attitudes as a way of collaborating with their integral development and not to punish or give rewards. In doing so, she wanted to value positive coexistence and provide the opportunity for the children to experience different situations of winning and losing tokens.

Having presented the basic features of Vila dos Números, here are some reflections on statistical literacy in two of the project's moments.

**The games store at Vila dos Números  
(observation - data collection - recording and organizing data in a  
table - reading, interpreting and analyzing the data collected)**

The games store was chosen to be opened in the third week of June, because at that time there were presentations in the school about the June tradition. The teacher's first intention was to offer the children board games, but as the school didn't have enough variety to meet their needs, she planned June-themed games - clown's mouth, ring toss and fishing - all organized in advance in a part of the outdoor patio using the school's resources as well as her own. In order to play, each child paid four tokens for a round, which entitled them to one try at each of the games. Figure 6 shows the store and the children playing.

The children received prizes for the games in the form of slaps. In front of the clown's mouth and the ring game, the teacher marked off different distances with different values of tokens, so that the children could try to hit the targets from the chosen point. As each token has a color and a value, the prizes were awarded in relation to the distance they occupied when they hit the target. In the fishing game, each little fish they caught had a particular token on the back that rewarded the fisherman. They produced their own strategies to get the clown's mouth and the rings right and to get the hook into the fish. They were excited about the games and were also focused and interested in helping each other.

Before leaving for the playground, the teacher told the children to bring sheets of paper and pencils to record their scores. So, during the games, the children observed each stage of the games and made written records in their notebooks, which were later discussed in the classroom. In the illustrations in Figure 6, you can see some of the children with their record sheets.

**FIGURE 6:** Sequence of activities in the games store.



Source: survey data (2022)

Once the games in the game store were over, the teacher and the students returned to the classroom, where the children counted their coins and put them in their envelopes. They then filled in a table together with the score according to the number of points each child had won in the games, as shown at the bottom of Figure 6.

The table was made up of five columns (photo + child's name, clown's mouth, hoop, fishing and total) and sixteen rows (one for each child who attended class on the day) to record the number of tokens each student received as a prize. Each child received a sheet with a copy of the table and made their entries on it. The process was a dialogical one, in which the children consulted the notes they had made while playing the games (data collection), talked about it and what they remembered from that moment. In consensus, they drew up the tables and then set about analyzing the recorded data. With the teacher's mediation, the students analyzed the values in the table to identify who scored the highest in each game and who scored the highest overall. They also identified who had the lowest score. By performing sum operations with the data collected, the students understood the meanings of the information in the table and were able to find the answer to the question posed, which was to identify the child who received the most tokens in the game store.

**Reopening one of the stores: how to decide?  
(observation - data collection - recording and organizing data in graphs - reading, interpreting and analyzing the data collected)**

Vila dos Números had all the stores open within what the teacher had planned for the school year, leaving time to end the year with evaluations of the project and activities on other proposals. However, she received feedback from the children asking her to continue opening the stores and the mathematical challenges until the end of the year, because they didn't want



Vila dos Números to end. Sensitized by this situation, the teacher decided to continue, reopening some of the stores and carrying out the challenges.

Taking the opportunity to mobilize activities that were also related to Critical Mathematics Education, she explained to the class that there wouldn't be time to open all the stores again, so they would have to choose one of them together. She then invited them to take a vote, and they agreed to this proposal and mobilized to put it into practice.

The class was taken by the teacher to the schoolyard, carrying with them the ten models of the stores in Vila dos Números, which had been placed on the ground. There, they formed a circle and discussed some ideas that could be put into practice for the vote, while looking at the models of the stores. It was then that the children came up with some hypotheses on how to carry out the vote. By consensus, the majority decided to position themselves according to their preferences, one by one, in front of the models, which were organized in ascending numerical order according to the number that identified them. Figure 7 illustrates some of these moments.

The arrangement of the children, lined up behind the model of their chosen store, created a giant "human" graphic that allowed them to visually identify which store had received the most votes and which had received the least. To confirm their perceptions, when they returned to the classroom they were all given a printed sheet of paper with a graph drawn on it to fill in with the information from the voting in the schoolyard. Figure 7 shows one of the graphs drawn up by the children. The result shows that the stores they chose were: bakery (11 votes), stationery store (3 votes), games store (2 votes), cinema (2 votes) and design store (2 votes).

**FIGURE 7:** Sequence of activities for voting on the reopening of stores.



Source: survey data (2022)

Constructing the graph using their own bodies before constructing it on paper was fundamental for the children to better understand the processes of recording and interpreting data using this resource. They understood that each person, i.e. each vote, corresponded to a little square painted in the right place on the paper, as shown by student L.M.: "Each square represents us, right, teacher?".

In this activity - not initially planned by the teacher because it was a response to a student need that arose during the process - by means of a vote (a real-world issue linked to the exercise of citizenship), the children problematized a survey, planned and executed the resolution of a problem situation, collected data and reached conclusions for decision-making. In this regard, Cazorla et al. (2017) defend the idea that children should actively participate in the process of constructing knowledge, interpreting and communicating results, defending their ideas, developing the ability to argue, learning to listen to criticism from their peers.

Respecting the decision of the majority of the children and explaining the concept of democracy within the framework of Critical Mathematics Education, the teacher reorganized her planning to reopen the bakery and to continue with the mathematical challenges. It's interesting to note here that the children didn't just ask for the project to continue with the new opening of the stores. They asked to continue solving math challenges, which is an important result.

So the Vila dos Números project continued until the end of the 2022 school year, mainly so that the children wouldn't feel frustrated by no longer taking part in activities that they had shown a lot of interest in and dedication to throughout the year. The math challenges continued in the form of a review of the content, with individual questions kept in a box for the students to take out and answer. The rules of the token system also remained in place and the teacher continued to hand out savings envelopes to the children every day to check the balance and use them. What about the reopening of the bakery? It made the children and the teacher very happy!

### **Reflections on the experience**

The Vila dos Números project worked on statistical literacy in a playful, critical and interdisciplinary way with Portuguese Language and cross-cutting themes, which corroborates that "[...] working with Statistics at school fosters the development of statistical thinking, the experience of interdisciplinary work and makes it possible to address cross-cutting themes." (CAZORLA et al., 2017, p. 17). In this process, reading and writing were present at different times, showing the inseparability of the mother tongue with mathematical language and statistics in the literacy cycle.

With regard to the playful nature of the project, using games and play as teaching resources helps to give meaning to children's teaching and

learning processes, since they are part of children's universe and are practices of greater interest to the age group in the literacy cycle. Lopes (2012, p. 167) says that:

Mathematics education, when inserted into this context of childhood, must be based on playfulness and the exploration of children's worlds. It should encourage the formation of creative, critical children who are able to read and understand their daily lives, which are characterized by their imagination and constant questioning.

By participating in learning and assessment activities at school in a playful way, the children interacted with scenarios, objects and situations that represent, in their own individual ways, what they observe and experience in life in society. They developed the skills of reasoning, investigating, representing, communicating and arguing mathematically and statistically, formulating and solving problems in a variety of contexts. In this way, they were able to exercise aspects that went beyond learning mathematics or statistics and also allowed them to learn about responsible consumption, the use of money, respect for heritage and the need for democratic discussion about problems that affect society. It was an opportunity to put Critical Mathematics Education into practice, which was motivated by the work dedicated to literacy, including statistics.

Critical Mathematics Education also played a role as the theoretical support that underpinned the planning and execution of the project's activities, since the teacher's actions always included the need to respect and value the students' prior knowledge (background), preparing them for the future (foreground) through invitation and dialog. We therefore believe that when working with Critical Mathematics Education, it is essential for the teacher to have the

intention of getting to know the children in social, cultural and historical terms. In order to adopt the principles of Critical Mathematics Education, we cannot limit the teaching of mathematics or statistics to an isolated form restricted to the content itself, but keep alive and ever-present a concern about how knowing this content can help people understand and transform the society in which they live with a critical view of the problems they face.

### **Acknowledgment**

The research was carried out with support from the UNIEDU/FUMDES Scholarship Program - Postgraduate Studies of Santa Catarina State, through the granting of a scholarship to the first author of this article and the Foundation for Support to Research and Innovation of Santa Catarina State (FAPESC) through the grant terms 2023TR288 and 2023TR329 developed in the research groups OPE – Observatory of School Practices (OPE) and NEPESTEEM (Center for Studies and Research in Educational Technology and Mathematics Education).

### **References**

ALRO, H.; SKOVSMOSE, O. *Diálogo e aprendizagem em Educação Matemática*. Belo Horizonte: Autêntica, 3ª ed., 2021.

BRASIL. *Parâmetros Curriculares Nacionais: Matemática*. Brasília: MEC/Secretaria de Educação Básica, 1997.

BRASIL. *Base Nacional Comum Curricular*. Brasília: MEC/Secretaria de Educação Básica, 2018.

CAZORLA, I.; MAGINA, S.; GITIRANA, V.; GUIMARÃES, G. *Estatística para os anos iniciais do ensino fundamental*. Sociedade Brasileira de Educação Matemática, Biblioteca do Educador-Coleção SBEM, 9, 2017.

GITIRANA, V. A pesquisa como eixo estruturador da Educação Estatística. In: BRASIL, Secretaria de Educação Básica. Diretoria de Apoio à Gestão Educacional. *Pacto Nacional pela Alfabetização na Idade Certa: Educação Estatística*. Brasília: MEC, SEB, 2014, p. 07-16.

LOPES, C. E. A educação estocástica na infância. *Revista Eletrônica de Educação*, [S. l.], v. 6, n. 1, p. 160–174, 2012.

SKOVSMOSE, O. *Educação Matemática Crítica: a questão da democracia*. 3a. ed., Campinas, SP: Papirus, 2001. (Coleção Perspectivas em Educação Matemática).

SKOVSMOSE, O. *Desafios da reflexão em Educação Matemática Crítica*. Tradução de Orlando de Andrade Figueiredo, Jonei Cerqueira Barbosa. Campinas, SP: Papirus, 2008. (Coleção Perspectivas em Educação Matemática).

SKOVSMOSE, O. *Um convite à Educação Matemática Crítica*. Tradução Orlando de Andrade Figueiredo. Campinas, SP: Papirus, 2014.

Received in July 2023.

Approved in October of 2023.