ARTICLE

Multimodal meanings: the typography in picturebooks published on the website Vooks

Significados multimodais: a tipografia em picturebooks publicados no website *Vooks*

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ABSTRACT: Visual compositions have been present in Western society since the beginning of civilization. They evolved due to technological advances and are nowadays more visual than ever with the use of images, colors, layout, and typography. The latter has gained the attention of theorists such as van Leeuwen (2006), Serafini and Clausen (2012) and Silva and Barbosa (2020). Its potential may be seen in picturebooks – a literary and multimodal material widely used in educational contexts (Serafini, 2014). Therefore, this research investigated the semiotic potential of typography in contemporary picturebooks in order to understand the possible meanings of its organization. Five picturebooks from the website Vooks were selected and three parts – the cover, pages of narration, and pages of mental and verbal processes – were analyzed. Then, their typography was described based on the categories proposed by van Leeuwen (2006) and Serafini and Clausen (2012). The results showed that typography has the potential of visually defining which participant is speaking as well as establishing relations with the meaning of the word. For example, the typography of "jumped" was organized as if the letters were jumping themselves. Thus, the emphasis on aspects such as weight, size, and framing may make readers aware that typography can express meanings that go beyond the verbal text.

KEYWORDS: Multimodality, Typography, Picturebooks.

RESUMO: Composições visuais fazem parte da sociedade Ocidental desde o início da civilização. Elas evoluíram devido aos avanços tecnológicos e agora encontram-se mais visuais do que nunca com o uso de imagens, cores, layout e tipografia. A última tem recebido a atenção de teóricos como van Leeuwen (2006), Serafini e Clausen (2012) e Silva e Barbosa (2020). Seu potencial pode ser visto em *picturebooks* – um material literário e multimodal bastante utilizado em contextos educacionais (Serafini, 2014). Portanto, esta pesquisa investigou o potencial semiótico da tipografia em *picturebooks* contemporâneos no intuito de compreender os possíveis significados da sua organização. Cinco *picturebooks* publicados no site Vooks foram selecionados e quatro partes – capa, páginas de narração, processos verbais e mentais – foram analisadas. Depois, suas tipografias foram descritas com base nas categorias propostas por van Leeuwen (2006) e

Serafini e Clausen (2012). Os resultados apontaram que a tipografia possui o potencial de definir visualmente o participante que está 'falando' assim como estabelecer relações com o próprio significado da palavra. Por exemplo, a tipografia da palavra 'pulou' foi organizada como se as letras estivessem pulando. Assim, destacar aspectos como peso, tamanho, enquadramento pode contribuir para a conscientização de que a tipografia pode expressar significados que vão além do verbal.

PALAVRAS-CHAVE: Multimodalidade, Tipografia, Picturebooks.

1   Introduction

The constant advances in digital technologies have provided a variety of tools which allow and facilitate the production of increasingly visual texts. Consequently, most contemporary media – such as textbooks, magazines, advertisements, billboards, and social media posts, among others – are mainly composed of an integrated array of graphic elements. Adami (2016) affirms that materials that lack visuality may be considered outdated, which means that visuality is not only present but is also considered an essential part of current texts.

Van Leeuwen (2011) asserts that even the verbal text must look good due to this demand, a process that can be done through typography, a graphic resource through which written language is presented (Serafini; Clausen, 2012). Besides making compositions aesthetically appealing, theorists highlight that typography is a semiotic resource and, as such, it may allow readers to produce meaning. Based on this idea, van Leeuwen (2006) and Serafini and Clausen (2012) developed categories that allow for the description of typography. In Brazil, Silva and Barbosa (2020) and Arruda, Santos and Barbosa (2022) used these categories in studies that focused on games and academic books.

Another example of texts in which typography is widely used are picturebooks[1], defined by Serafini (2014) as multimodal texts that combine design elements, written language, and visual images. Serafini (2014) affirms that typography has become an integral part of picturebook narratives. Hence, meanings of a story are also produced depending on the way typographical elements are organized in certain parts of those books.

Bearing that in mind, this research can be justified based on two reasons. Firstly, picturebooks are not only commonly used in educational contexts but they are also considered a good way of developing visual literacy in that context (Callow; Zammit, 2002). Secondly, to prepare the 21st century reader/producer – the one who faces a huge variety of texts every single day – it is necessary to "go beyond the formal approach" (van Leeuwen, 2006, p. 154) that focuses on verbal meanings only. Thus, focusing on the potential meanings enabled by typographical elements is a way of considering and analyzing multimodal meanings – a field that highly interests us.

Therefore, this research aimed to investigate the semiotic potential of typography in five contemporary picturebooks published on Vooks – a website that publishes an animated version of these materials – in order to understand the possible meanings of their typographical

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[1] In this research, we use the compound word "picturebook" to acknowledge the multimodal meanings created in these materials which are produced based on the complete integration of image, text, layout, color, among others.

organization. More specifically, it sought to identify (1) what is the semiotic potential of typography in the picturebook covers, pages of narration, and pages composed of verbal/mental processes; and (2) which typographical/multimodal meanings can be created on these parts.

In the following section, we discuss the theoretical bases of this research. Then, in the third section, we address the methodology. Later, in the fourth section, we discuss our findings and results. Lastly, we highlight some conclusions.

2   Literature review

This study is supported by studies on multimodality (Kress; van Leeuwen, 2006; Kress, 2010; Adami, 2016), visual literacy (Serafini, 2014; Barbosa, 2017), picturebooks (Callow; Zammit, 2002; Serafini, 2014) and two systems of analysis of typography (van Leeuwen, 2006; Serafini; Clausen, 2012). We present and discuss the main ideas related to those studies in the next subsections.

2.1 The importance of multimodality and visual literacy in educational contexts

For decades, theorists and researchers have been advancing studies which focus on the meanings provided by more than one mode. Among them, a more recent theoretical and methodological approach has been multimodality – defined by van Leeuwen (2011, p. 668) as "the integrated use of different resources, such as language, image, sound and music in multimodal texts and communicative events". These studies and theories adopt the view that socially constructed meanings are produced based on the complete integration of modes. Kress (2010) affirms that multimodality shows that verbal language is not the only option when it comes to producing meaning and communicating.

Hence, we understand that besides teaching how to read and write verbal texts, reading the visual elements should also be part of pedagogical practices. Theorists such as Stafford (2011) and Serafini (2014) have asserted the need for teachers to be visually prepared to instruct students in the future. Kress and van Leeuwen (2006, p. 3) highlight that "visual literacy will begin to be a matter of survival, especially in the workplace". For this reason, understanding visual literacy, attributing it to teacher education and subsequently to pedagogical practices seems to be a way to survive in this contemporary multimodal world.

The term visual literacy can be related to "[…] understanding visual information not only as an adornment to verbal information but as a semiotic element which adds meaning to the text[2]" (Barbosa, 2017, p. 101). Hence, it emphasizes that the verbal text is not the only resource with potential for meaning; other modes, such as images, typography, and layout, are equally part of the process.

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[2] Our translation, as well as all the others in this paper, except when otherwise indicated. In the original: […] entendimento da informação visual não apenas como um adorno da informação verbal, mas como um element semiótico que agrega sentido ao texto.

Therefore, visual literacy can be defined as the ability of reading, comprehending, and producing visual information in communicative events (Serafini, 2014; Barbosa, 2017). In other words, an individual who is able to create meaning based on the full integration of semiotic modes as well as to produce their own visual texts can be considered visually literate. Among a variety of multimodal texts, picturebooks can be a way of promoting visual literacy (Callow; Zammit, 2002). We discuss these materials in the following section.

2.2 The semiotic potential of picturebooks

There are various types of literary and artistic manifestations. From classics to contemporaries, everyone can find a book that matches their own personal tastes. For those who prefer visual forms of literature, picturebooks – which are defined by Serafini (2014) as multimodal ensembles that use images, written text, and design elements cohesively – are great options.

According to Callow and Zammit (2002), picturebooks have a time-honored place in all primary classrooms. For this reason, associating these materials with small children's education is rather common. Recently, they evolved into a "variety of genres and styles, many reflecting a postmodern and self-reflexive position" (Callow; Zammit, 2002, p. 190). Consequently, they can be read by consumers who are interested in contemporary discussions which take place in today's world such as feminism, migration, and globalization.

According to Serafini, Kachorsky and Aguilera (2016), contemporary picturebooks have been impacted by digital technologies due to the increasing popularity of reading devices. This indicates that they can now be found in various domains, including the digital one. Advances in this domain even allowed people to develop picturebooks apps, which "are designed to be experienced on reading devices, tablets, smartphones, or accessed using particular digital or web-based platforms" (Schwebs, 2014, p. 1). Thus, they are constantly available for those who have access to the Internet in a variety of digital platforms.

It is also necessary to highlight that some picturebooks available online are simply "reproductions of printed picturebooks" (Schwebs, 2014, p. 2). In this case, they are just transferred to a digital format, with no other distinct characteristics. On the other hand, Schwebs (2014, p. 2) affirms that some apps "are ambitious productions, exploiting the media's visual and auditory potential, including animations, puzzles, and interactive tasks." These apps provide a visual experience that goes beyond reading on printed paper. That is in accordance with Serafini, Kachorsky and Aguilera (2016) when they say that readers of digital picturebooks use physical, cognitive, visual, emotional, and other strategies.

The website Vooks, which is a paid platform that publishes animated versions of picturebooks, is an example of this. The producers add special effects such as movement, sounds, and narration to stories that are originally developed for young children (2 to 8 years old) and do not originally have these elements. The website is paid; however, teachers may use it for free. The website even provides lesson plans with some picturebooks, which suggests that the educational aspect is important for those who created the application.

Another significant aspect to be highlighted in relation to picturebooks is how they can differ from illustrated books. According to Serafini (2014), the latter tells stories primarily through written text, which means that the lack of images or drawings would still allow readers to comprehend it. Picturebooks, on the other hand, "blend visual images and design elements with written language in a cohesive structure that simultaneously unfolds in both visual and verbal narratives" (Serafini, 2014, p. 83). Figures 1 and 2 exemplify the main differences between them.
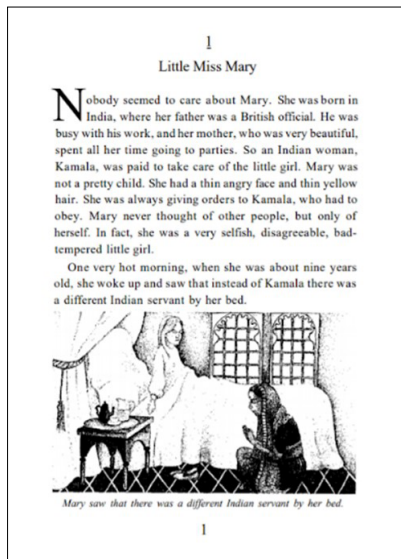
Figure 1 – Example of illustrated book
Source: Burnett (1993, p. 1).

Figure 2 – Example of picturebook
Source: Jeffers (2016, p. 16).

Figure 1 shows an illustrated version of the English classic *The Secret Garden*. The picture portrays the moment when Mary saw a different Indian servant by her bed. The illustration certainly provides visual information to readers – such as the characteristics of Mary's bedroom and the specific places the characters stood – however, the story could still be understood without reading the image on this page.

In contrast, meanings are produced differently in Figure 2. In *A Child of Books*, it is the total interaction between drawings, written word, typography, and layout that allows readers to comprehend the visual and verbal narratives. The sentence "forest of fairytales" only makes sense when we realize that the books represent the trees and their leaves are fairy tale titles. At the same time, informal typographical characteristics such as *inclined slant* and *informal flourishes* made the verbal text similar to a child's handwriting. This demonstrates that "each part of the picturebook functions as a sign and has the potential to contribute meaning to the book" (Sipe, 2001, p. 24). Hence, all the modes present in such compositions are equally important for the meaning-making process.

Having laid out information about picturebooks, we now move on to typography, a mode that may be present in them.

2.3 The visual role of typography

Verbal texts are constant elements in our daily lives. They are present in messages, social media posts, reports, and advertisements, among many others. In digital and printed environments, the verbal establishes an intrinsic connection with typography, a graphic resource through which written language is presented (Serafini; Clausen, 2012). According to van Leeuwen (2006) and Serafini and Clausen (2012), the increasing use of fonts with different colors, sizes, textures, and dimensions not only shows innovation in graphic design but also establishes typography as a means of communication and meaning making.

To understand how this meaning can be created, it is necessary to consider the linguistic metafunctions, originally developed by Halliday (1985) and subsequently extended to other modes, such as images, by Kress and van Leeuwen (1996, 2006, 2021). For the authors, a semiotic resource functions as a mode when it represents the situations from the social world of its users (*ideational metafunction*); when it is capable of dealing with and documenting social actions, interactions, and relations of community members (*interpersonal metafunction)*; and when it has the capacity of forming complex semiotic entities which cohere with the social world *(textual metafunction).*

Van Leeuwen (2006) noticed that typography also fulfills these three functions. This suggests that typography not only highlights the visual aspect of the written mode but also affects the way people read texts. In picturebooks, "typographical elements have become an integral part of the narrative itself, a semiotic resource that adds to the potential meanings of a picturebook" (Serafini; Clausen, 2012, p. 5). In other words, readers are now expected to make meaning based on the way typographical characteristics are organized.

Silva and Barbosa (2020) affirms that observing the visual aspect of writing allows us to understand the importance of creating meaning through typographical elements. In order to observe how this process occurs, the authors adopted two systems for the investigation of typography on digital games. In this study, those systems ground our analysis too and we discuss them on the next topic and tables[3].

2.4 Typographical characteristics: two systems for investigation

As a means to explore the semiotic potential of different modes, some theorists have been proposing the analysis of typographical characteristics. Van Leeuwen (2006) and Serafini and Clausen (2012), for instance, provide some categories which may highlight their possible meanings in a visual text. Van Leeuwen (2006) asserts that typography has various communicative and social purposes. The author suggests some aspects of typography – such as *weight, expansion, slope, curvature, connectivity, orientation and regularity* – which cover cultural values and knowledge. Table 1 displays a paraphrasis for each category.

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[3] Aiming to maintain the original fonts, the tables were exported from Google Docs.

Table 1 – Categories proposed by van Leeuwen (2006)

Characteristic	Description	Appearance
Weight	• It gives emphasis to texts. • *Use of weight*: challenging, assertive, solid. • *Lack of weight*: shyness or insubstantiality.	**With weight** No weight
Expansion	• Related to space. • *Condensed fonts:* more precise; cramped, overcrowded, restricted of movement. • *Expanded fonts:* use space as if it were unlimited.	Condensed `Wide`
Slope	• Difference between handwriting and mechanical printing. • *Cursive, sloping*: organic, personal, formal, old and handmade. • *Upright:* mechanic, impersonal, informal and new.	*Cursive, sloping* Upright
Curvature	• *Angularity*: abrasive, severe, technical and masculine. • *Curvature:* gradual and fluid. They can express smoothness, softness, naturality, and maternity.	ANGULARITY Curvature
Connectivity	• Associated with handwritten elements. • *Internal disconnection*: atomization or fragmentation. • *External disconnection:* totality or integration.	Connected **Hooked feet** Independent **Internally disconnected**
Orientation	• *Horizontal orientation:* heaviness and solidity or inertia and self-satisfaction. • *Vertical orientation:* lightness and instability.	Horizontal **Vertical**
Regularity	• *Irregular fonts:* inability or deliberative wish of not following normal writing rules, which we are taught at school.	Regular Irregular

Source: adapted from van Leeuwen (2006, p. 148).

Table 1 portrays the categories proposed by van Leeuwen (2006). Its first column shows the nomenclatures; the second one highlights and explains their semiotic potential and possible meanings; and the third one demonstrates some visual examples of organization. Such categories indicate that the typographical organization of fonts is not arbitrary since it is able to express various meanings, as shown in the description part. Another system is suggested by Serafini and Clausen (2012), who adapted the typographical categories proposed by Machin (2007) to observe the typography of picturebooks, the same types of text that compose our corpus. The authors then identified seven characteristics that are described on Table 2.

Table 2 – The typographical characteristics proposed by Serafini and Clausen (2012)

Characteristic	Description	Appearance
Weight	• The use amplifies the salience of a font and its level of importance. • Reducing it diminishes the attention given to a typographical element.	**With weight** No weight
Colour	• Classifies, differentiates and develops associations between elements. • Expresses and communicates emotions or social-cultural meanings.	**Sadness** **Love** **Grief**
Size	• Provides emphasis and salience. • Bigger words are noted more quickly than those that are smaller.	Big Medium Small
Slant	• Slant refers to the orientation of fonts. • *Straight*: use of machines. • *Inclined*: handwritten texts.	Straight *Inclined*
Framing	• A way of separating or connecting visual elements. • Formal frames: edges and lines are used to separate elements. • Informal frames: color, white space, or position.	White Space Lines Position Color
Formality	• The formal or informal aspect of fonts.	Formal Informal
Flourishes	• Graphic additions to fonts may impose conceptions to their meaning. • The serifs present in Times New Roman express formality. • In contrast, the arrangement outside the lines on the font Ravie conveys the idea of fun or disorganization.	Formal flourish Informal flourish

Source: adapted from Serafini and Clausen (2012).

Table 2 explains the categories proposed by Serafini and Clausen (2012). Similarly to van Leeuwen's system, this one also emphasizes meanings that may be produced based on the observation and interpretation of typography. In fact, using both of systems together is a way of exploring even more potentials since, except for weight and slope/slant, the authors present different categories. After discussing the theories which support our analysis, we now explain the methodological procedures.

3   Methodology

This study is classified as bibliographic and descriptive in which qualitative methods were used. In the following section, we describe both the corpus and the procedures.

3.1 Corpus description and selection criteria

For this study, the corpus was collected from the website Vooks. This specific source was chosen due to the free access provided for teachers and, especially, the presence of visual elements in its entirety. Its structure allows readers to fully interact with the materials by

viewing, reading, and listening – which may contribute to the development of their literacy skills, including visual literacy.

According to its *About Us* section, Vooks' goal is to bring stories to life by animating picturebooks and adding special effects such as narration and sounds. For this reason, all the visual elements move in the animated version of the picturebook, even typography. For instance, Figure 3 below shows a screenshot from *I am (not) scared* – created by Kang and Weyant (2017) – and exemplifies what happens while the narrator reads the text. We would like to highlight that Vooks gave us a written permission to publish all screenshots.
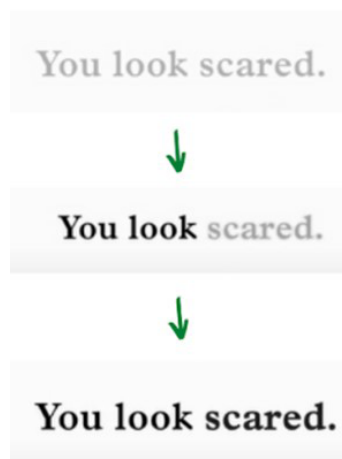
Figure 3 – Example of moving typography
Source: Vooks

First, the typography appears in gray, and it gets bold as the narrator reads the text and determines the rhythm of the reading. At this point, we must mention that despite presenting an example of moving images, the focus of this research is on still screenshots, which were taken from the picturebooks shown in Table 3.

Table 3 – Picturebooks used in this study

Title	Year	Author/Illustrator	Synopsis
Puppy is Lost	2011	Harriet Ziefert/ Noah Woods	Max loses his dog and they try to find each other again.
Spork	2011	Kyo Maclear/ Isabelle Arsenault	Spork doesn't understand why he is never picked during mealtime. Someday, his dreams finally came true.
Be Big!	2018	Jonathan Swift	In Be Big! Beatrice faces the wonders of her first day at school.
Mae the Maefly	2020	Denise B. Nelson/ Florence Weiser	Mae hatches and he decides to fly and see the world. She faces dangers and lives various adventures.
Earth Yay!	2021	Jonathan Sundy	Earth goes visiting other planets and learns things about them and herself.

Source: the authors.

As Table 3 suggests, our corpus consists of these five picturebooks, which were selected from the Popular Titles section of the Vooks website. They were taken from there because this placement suggested that they had been the most accessed materials by the time of the selection. More specifically, three of their parts were considered – the main cover, a page in which there is a narration of the events, and pages that show mental processes and verbal processes. These parts were analyzed because they were common elements of the picturebooks we found back when we were developing our idea. In total, the typography of twenty parts was observed.

3.2 Data compilation and analytical procedures

In order to develop this research, some steps were followed. First, five picturebooks were selected from the Popular Titles section of the Vooks platform. Then, screenshots were taken from their main cover, pages of narration, and pages composed of verbal and mental processes, totalizing twenty screenshots. After that, they were organized in an inventory in which we put information such as title, year of publication, name of the author, and synopsis.

Subsequently, the visual composition of the twenty screenshots was described. To do that, we first observed the organization of the background, the images, and the written part. Then, their typographical characteristics were described with the assistance of the categories proposed by van Leeuwen (2006) and Serafini and Clausen (2012), such as weight, expansion, inclination, etc. After this, the semiotic potential of their typography was analyzed. The other visual elements – images, colors, layout – were considered in this part because, in a multimodal approach, it is the integration of modes which allows us to construct social meanings. On the next section, we present our main findings.

4   Results and Discussion

As stated in the theoretical background, the typographical characteristics proposed by van Leeuwen (2006) and Serafini and Clausen (2012) are *weight, expansion, curvature, connectivity, orientation, regularity, color, size, framing, inclination, formality,* and *flourishes.* These categories helped us to observe possible meanings that can be found in the typography of the selected covers, pages of narration, and pages of mental/verbal processes (viz. Table 1 and Table 2). The subsections of the analysis are organized according to these elements.

4.1 The semiotic potential of typography in picturebooks covers

Covers are the reader's first contact with a book. They are extremely powerful elements because they may influence people to decide whether they will read the product or not. Two important elements of covers are the title and the name of the author, which are respectively responsible for synthesizing the most important theme of the narrative and stating who wrote the book. Considering this, two aspects highlighted the typography's semiotic potential on the covers and we discuss them in the next paragraphs.

First, it was noted that the typography of the covers may have the potential of attracting the reader's attention. In the five materials, the titles are always framed either in the middle or on the top. All of them have a big size, a wide expansion, and an irregular aspect (Van Leeuwen, 2006; Serafini; Clausen, 2012). This integration can make the reader direct their eyes towards

the title quickly since these characteristics occupy more space. The picturebook *Earth Yay* (Sundy, 2021), in which the Earth travels through the solar system in order to befriend the other planets and learn more about them, illustrates this potential. Figure 4 shows its cover:

Figure 4 – An eye-catching typography
Source: Vooks

The colorful confetti on the top progressively disappears as they get distant from the title and approach the name of the author, where there are only faded stars. This strategic framing (Serafini; Clausen, 2012) separates the title and the writer's name. On the top, a sense of enjoyment can be expressed by the interaction between typography and image. As we direct our eyes downwards, this sensation disappears.

This might happen because, along with the color white and the big size, the title's typography not only calls the reader's attention but can also pass the idea of amusement since it is framed next to confetti, an element that is usually used in parties, a moment which is full of festivity and recreation. Also, the wide space (van Leeuwen, 2006) between the letters might express relaxation and liberty to behave freely, feelings which are usually common when we are in a festive environment.

The name of the author, on the other hand, is framed on the bottom with small, condensed, curved, and regular fonts (van Leeuwen, 2006; Serafini; Clausen, 2012). Moreover, the color gray makes the author's name less apparent. Such typographical organization can express an idea of the seriousness and this may be related to the author's role, a solemn position that requires more class and composedness.

This clear division of textual parts in which the name of the author is framed on the sides happens in all materials, the only difference is that two of them use fonts similar to handwriting due to its inclination (Serafini; Clausen, 2012). The meaning of this specific typographical organization can be related to the element itself, which aims at informing the name of the person who literally *wrote* the book. The reader might connect more with handwritten texts since it adds a personal and informal touch to the text (van Leeuwen, 2006; Serafini; Clausen, 2012). Instead of being serious, they are more relaxed and thus accessible.

These were the two aspects which portrayed typography's semiotic potential on the covers. On the next topic we discuss our findings in the pages of narration.

4.2 The semiotic potential of typography in picturebooks narration pages

In pages of narration, the function of the narrator is to share what is happening in the story. It is possible to get to know more about the situation presented or even understand facts about the space and time in which the story happens. Regarding the typography used in this part of the picturebook, it was possible to note two aspects in which its semiotic potential is visible.

First, in *Earth Yay* (Sundy, 2021), *Mae the Maefly* (Brennan-Nelson; Weiser, 2020), and *Spork* (Maclear; Arsenault, 2011), the same typography used in the name of their authors/ illustrators on the cover was also present in the pages of narration. Figures 5 and 6 below are screenshots from *Mae the Mayfly* (Brennan-Nelson; Weiser, 2020), a story about a small insect who hatches and decides to get to know the dangers and wonders of the world. In the cover (Figure 5), the title is in the middle and the name of its author/illustrator is right below it. In the page of narration (Figure 6), Mae suffers a minor accident and is taken away by the wind.
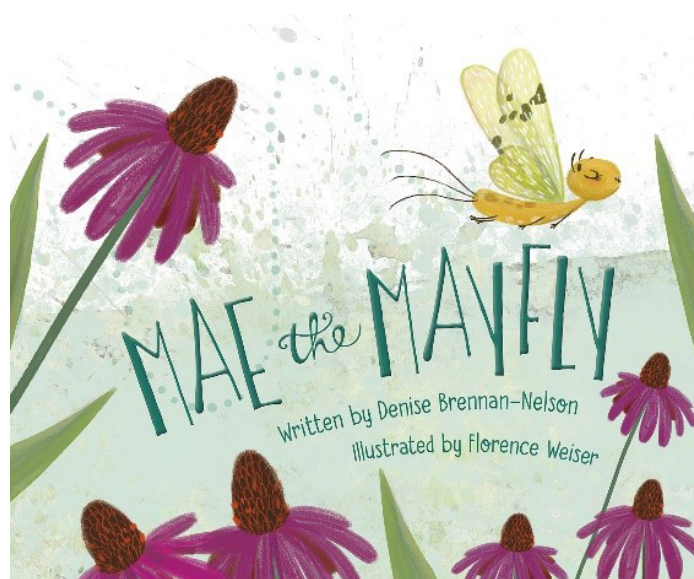
Figure 5 – The use of typography in the name of authors and illustrators
Source: Vooks

Figure 6 – The use of typography in pages of narration
Source: Vooks

As stated before, the narrative text has the same typography present in the name of the author/illustrator. The difference between them is color and size, which is black and bigger on the page of narration. In this case, size provided more salience to the typography and it consequently increased its level of importance (Serafini; Clausen, 2012). In other words, this variance probably suggests that the verbal information needs to be looked at more carefully since the story is told there. It might also indicate that the author herself is the narrator of the story. She becomes a participant who shares details about Mae's adventures.

We also noted typography's ability to relate directly to the meaning of the words and phrases, specifically in *Puppy is Lost* (2011), *Be Big* (Kizer, 2018) and *Mae the Mayfly* (Brennan-Nelson; Weiser, 2020). In these cases, typography is classified as irregular since it does not follow "normal" writing rules and consequently adds new meanings to the whole composition (van Leeuwen, 2006). In Figure 6 above, for instance, Mae moves without meaning to. At the same time, the irregular typographical characteristics are framed in a way that indicates the idea of unintended movement, reflecting what happens when light things are forcefully taken away by the wind. Consequently, a sensation of worry and anxiety can arise from this organization because being affected by the forces of nature, such as strong winds, is usually scary. A similar situation happens in Figure 7:

Figure 7 – The relation between typography and word–meanings
Source: Vooks

This screenshot was taken from the picturebook *Be Big* (Kizer, 2018), which tells the story of Beatrice and her first day at school. In the image, three happy kids are playing in front of white plants. The verbal text that stands on the top is composed of typography that initially follows normal writing rules and unexpectedly moves up and down. This happens exactly in the word *jump*, which is the only verb in the sentence that indicates which action is being done.

Since jumping means taking our feet off the ground repetitively, the irregular typography of the word can express a similar idea since the letters move as if they were jumping themselves. It can be implied that the image, the typography, and the meaning of the word are intrinsically connected since the first two visually portray the action of jumping. In addition to that, it can express a feeling of delight and freedom, reflecting the manner a kid probably feels when they are allowed to openly play during the break in school.

These were the two aspects in which potential meanings of typography could be seen on the pages of narration. In the next topic we discuss the observations regarding the pages composed of mental and verbal processes.

4.3 The semiotic potential of typography in picturebooks pages of mental and verbal processes

Pages of mental and verbal processes are places where it is possible to read about the character's thoughts and/or speeches. In these moments, the reader usually becomes more acquainted with the characters' personalities and opinions, deciding whether they are likable or not. It was noted that these pages are similar to one another, and, for this reason, they are discussed together at this point. Typography's semiotic potential was observed in one aspect.

In general, it was noted that typographical characteristics can help the reader to identify the participants. In other words, depending on its organization, the characteristics can portray and highlight the person who is speaking or thinking. Such situation was visible in all analyzed materials and Figure 8 exemplifies one of them. It is a screenshot of a page with a verbal process from *Spork* (Maclear; Arsenault, 2011), a picturebook that tells the story of the son of a fork and a spoon while he tries to deal with being different from those surrounding him.
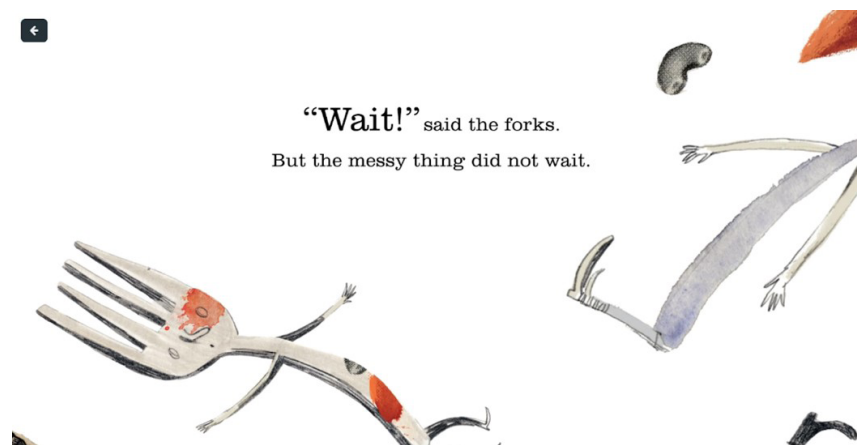
Figure 8 – Different participants on the same page
Source: Vooks

This page shows the moment when the characters accidentally fall due to an incident. The verbal text stands on the top and the only apparent difference between the fonts is simply the size (Serafini; Clausen, 2012), where the word *wait* is bigger than the rest of the sentence. Even so, this simple divergence can express a lot. Based on the situation, this bigger size might have been chosen as a way of visually defining who the fork and the narrator are. On the other hand, the narrator's point of view is expressed in smaller letters, making it easier to identify who is speaking at that specific moment. The bigger size can also portray the apprehension and nervousness people usually feel when they fall. It may represent the rise of voice which may increase in alarming situations.

Another example can be seen on a page of *Be Big* (Kizer, 2018), which portrays Beatrice's thoughts. In Figure 9, she is considering all the things that could go wrong during her first day at school. To represent her ideas, the illustrator chose to draw the situation and use an arrow to indicate and connect the verbal text and the image. Beatrice wonders if her teacher will be nice and the drawing shows a sad version of her listening to an argument.

Figure 9 – Typography representing different participants
Source: Vooks

In this case, the typography is slightly connected (van Leeuwen, 2006) and framed in a notebook. As a consequence, the verbal text is similar to a handwritten style, which adds a personal touch to the page (van Leeuwen, 2006; Serafini; Clausen, 2012). It might have been organized like this because Beatrice's nervousness is common when people have to try new things and go to unfamiliar places. Therefore, the illustrator's possible choice of using Beatrice's own typography to express her personal worries can make the reader understand her situation and even relate to them. The readers might also infer that the typography used in the verbal part may even represent the girl's own handwriting since it is written in a notebook.

These were examples of the typography's semiotic potential observed in pages composed of verbal and mental processes. On the next and final section, we reflect on our findings and present our conclusions.

5   Conclusions

In this research, we investigated the semiotic potential of typography in five contemporary picturebooks published on the website Vooks. It sought to identify (1) what is the meaning potential of typography in the picturebooks' covers, pages of narration, and pages composed of verbal/mental processes; and also (2) which typographical/multimodal meanings can be created on these parts. Our analysis was grounded on the categories proposed by van Leeuwen (2006) and Serafini and Clausen (2012). These two studies helped us to closely observe Kress' and van Leeuwen's (2006) affirmation that even the written text is a form of visual communication.

For instance, the classification of typographical elements provided by these studies surely helped us in observing the semiotic potential of typography and the way it can be expressed in picturebooks. We noted that aspects asserted by van Leeuwen (2006) and Serafini and Clausen (2012) in their categories could be seen in the picturebooks we analyzed. For example, the font size's ability to call the reader's attention to covers, the personal feeling provided by handwritten fonts, and the role of framing in providing meaning depending on where the text is positioned.

In the analyzed parts, such as Figures 9 and 10, we could also notice that the meaning of the word and the typographical characteristics are completely related to each other – showing us possible multimodal meanings created by the interaction of modes. Besides that, we also observed the way subtle differences in the use of typography can define who is the participant speaking in the text. This situation was commonly present in the materials, which suggests that the producers are aware of the role of typography in representing characters simply by changing an aspect, exemplified in our study by the use of font size in Figure 8.

Based on our findings, we believe that grasping the semiotic potential of typography, in picturebooks and also other materials, can help teachers to prepare the 21st-century individual to read (and produce) multimodal texts composed of typographical elements. By raising awareness to aspects such as weight, size, framing, and inclination, among others, the teacher might make their students aware of the ability that typography – along with modes such as images, colors, and layout – has of expressing meanings that go beyond the verbal information alone.

CONTRIBUIÇÃO DOS AUTORES

MESS: Concepção, Coleta de Dados, Análise de Dados, Elaboração do Manuscrito, Redação e Discussão dos Resultados; **VSB:** Concepção, Coleta de Dados, Elaboração do Manuscrito, Redação, Discussão dos Resultados e Revisão.

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