

Práticas educativas na Educação Básica: relações entre linguagem, neurociências e turismo

Geraldo José Rodrigues LISKA¹

Resumo

Pensando na importância do turismo e sua percepção para o desenvolvimento de uma região, investigamos como os moradores de uma comunidade local percebem a região onde vivem nas questões turísticas e seus aspectos econômicos, históricos, culturais e ambientais e desenvolver, com eles, materiais informativos e de divulgação. Evidenciamos, a partir de nossas observações, que a metodologia pode aumentar o engajamento dos alunos, favorecer o processo de ensino e aprendizagem por meio de situações concretas de linguagem e estimular vivências e práticas além dos muros da escola. Concluimos também, como hipótese para a escolha do tema, que é comum os moradores de uma determinada cidade conhecerem muito pouco sobre o turismo local e sua importância para o desenvolvimento econômico e regional.

Palavras-chave: Cultura. Ensino de língua. Patrimônio. Neurociências. Turismo.

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Educational practices in Basic Education: relationships between language, neurosciences and tourism

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Abstract

Thinking about the importance of tourism and its perception for the development of a region, we investigated how residents of a local community perceive the region where they live in terms of tourist issues and its economic, historical, cultural and environmental aspects and develop, with them, informative and of dissemination. We evidenced, from our observations, that the methodology can increase student engagement, favor the teaching and learning process through concrete language situations and stimulate experiences and practices beyond the school walls. We also concluded, as a hypothesis for choosing the topic, that it is common for residents of a given city to know very little about local tourism and its importance for economic and regional development.

Keywords: Culture. Language teaching. Patrimony. Neurosciences. Tourism.

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Resumen

Pensando en la importancia del turismo y su percepción para el desarrollo de una región, investigamos cómo los residentes de una comunidad local perciben la región donde viven en términos de cuestiones turísticas y sus aspectos económicos, históricos, culturales y ambientales y se desarrollan, con ellos, materiales informativos y de difusión. Evidenciamos, a partir de nuestras observaciones, que la metodología puede aumentar la participación de los estudiantes, favorecer el proceso de enseñanza y aprendizaje a través de situaciones lingüísticas concretas y estimular experiencias y prácticas más allá de los muros de la escuela. También concluimos, como hipótesis para la elección del tema, que es común que los residentes de una determinada ciudad sepan muy poco sobre el turismo local y su importancia para el desarrollo económico y regional.

Palabras clave: Cultura. Enseñanza de idiomas. Patrimonio. Neurociencias. Turismo.

Introduction

We know that tourism plays a significant role in the lives of residents of a particular region, such as providing economic opportunities, fostering growth and development, preserving culture, and enhancing pride and identity.

In the latter aspect, tourism can increase the pride and identity of local residents regarding their region. When they see visitors appreciating and valuing what their community has to offer, residents may feel more connected and proud of their hometown. This can strengthen the sense of community and encourage locals to protect and improve their region.

With this in mind, and based on neuroscience, the focus of this work is to investigate how the residents of Alfenas-MG perceive the region where they live in terms of tourism and its economic, historical, cultural, and environmental aspects, and to develop informational and promotional materials with them. The research will be conducted in a classroom with high school students, and the final product will be the creation of infographics highlighting the region's tourist attractions.

Typically, in a classroom, what comes from outside is completely filtered by the teacher, and all work done in class is directed to them. In this regard, Professor Ana Matte concludes: "The only need is a grade, an abstract evaluation that, instead of truly assessing, simply decides whether the student will need to go through the process again" (MATTE, 2008, p. 174). Therefore, we envisioned an activity beyond writing a text directed to the teacher, but rather one for the community itself to learn about and have the opportunity to promote and value the region in which they live.

We approached this activity using the methodology of risk (MATTE, 2008). This methodology arises from a premise: "It is in a situation of real need that we develop our best learning solutions" (MATTE, 2008, p. 173).

For this, we used the classes of Research and Intervention and Portuguese Language at a public high school. We realized that it is common for residents of a particular city to know very little about local tourism. This can happen for a variety of reasons, including lack of interest, lack of information, and even a tendency to view familiar places as distant from the idea of tourism.

Foundation

When it comes to tourism, neuroscience plays an important role: The study of the brain and the nervous system can provide insights into how people experience and respond to different environments, cultures, and experiences. On the other hand, tourism can also challenge identities and cultural pride, leading to questions and reflections about one's own identity, values, and personal

beliefs.

Li, Chark, Bastiaansen, and Wood (2023) highlight that the growth of neuroscience studies in tourism has been relatively slow, limited, and lacking interdisciplinarity. Scientists in the field of tourism may not be fully aware of the developments in neuroscience, as most of the relevant studies crossing these two areas are published in neuroscience journals. Li, Chark, Bastiaansen, and Wood (2023) present data on the relationship between social sciences and neuroscience, and how neuroscience adds value to social sciences. Since our focus is on education, we believe we are following a similar direction. The authors emphasize the theoretical relevance of various branches of neuroscience, including affective neuroscience, neuromarketing, neuroeconomics, and neuro-management, in the development of a research project. The novelty of this research lies in the relationship between tourism, neuroscience, and education.

Our intention, as will be evident in this study, is to reinforce the sense, among local residents, that they are fundamental parts of the tourism and economy of a region. In this sense, Stadler, Jepson, and Wood (2018) combine tourism theories with neuroscientific experiments when reporting the experience of older women at craft events. Measures of electrodermal activity showed spikes of emotion during the experiences, as they felt that their lives had more significance for themselves and for the community as a whole in light of the activities carried out. A clear example of this manifestation can be found at the "Casa do Artesão" and the Biscoiteiros Unidos Association (ABU), created by women who wanted to preserve the tradition of baking cookies in clay ovens, passed down from generation to generation².

In neuroscience, Fraga et al. (2023) explain that a challenge faced is explaining people's cognitions and behaviors, particularly in interface with other fields of knowledge such as psychology, education, economics, and others. In this context, there is justification for including tourism, and new disciplines are emerging, such as neuroeducation. Fraga et al. (2023) highlight contributions for Tourism Planners and Managers, such as the need to understand their audience, their needs and differing ideals, research with focus groups that cross aspects of supply with those of demand, and incorporating neuroscientific methods. They also mention the importance of thoroughly understanding the region's surroundings and the most relevant tourist attractions, the unique selling points that can be presented to tourists, the types of memory, and their association with tourist attribute.

² Available at <https://www.minasgerais.com.br/pt/atracoes/areado/associacao-dos-biscoiteiros-unidos>, accessed on August 21, 2024.

Educational practices in Basic Education: relationships between language, neurosciences and tourism

However, how can children and adolescents from a region become strong candidates, in the future, as Tourism Planners and Managers if they do not (or have little) knowledge of the potential of the region where they live? We see that neuroscience studies are still in the early stages of testing the knowledge of local residents about what they expect from the region's attractive capabilities, and we hope that this work will stimulate the production of this knowledge.

To answer this question, we refer to the current guiding document of education: Analyzing and valuing national and international artistic heritage, both material and immaterial, with its histories and different worldviews, is one of the competencies outlined for the teaching of Art in Elementary Education, according to the National Common Curricular Base (BNCC) (BRAZIL, 2018).

From Early Childhood Education, the Base guides the knowledge of the self and others. It requires activities that allow children to interact with other social and cultural groups, other ways of life, different attitudes, techniques, and rituals of personal and group care, customs, celebrations, and narratives. In these experiences, they can broaden their way of perceiving themselves and others, value their identity, respect others, and recognize the differences that constitute us as human beings.

In the Early Years, the document states that it is essential, in the study of Humanities, to research different documentary sources, observe and record – landscapes, facts, events, and testimonies – and establish comparisons. These procedures are fundamental for understanding themselves and those around them, their life stories, and the differences of the social groups with which they interact. The learning process should progressively consider the school, the community, the state, and the country. It is also important that students perceive the relationships with the environment and the actions of human beings with the world around them, reflecting on the meanings of these relationships.

Therefore, we see that, regarding tourism studies in the BNCC, Humanities contribute to the development of competencies related to tourism, such as understanding geographical spaces, studying cultures and societies, analyzing historical processes, and reflecting on social issues.

Silva (2018), when researching the "Geographical Testimonies of Well-Being in Alfenas-MG," concludes that cultural formation occurs through a historical process that is always in continuous movement of transformation and renewal. Education and cultural formation mobilize us and place us within a set of values, beliefs, and behaviors, moving us away from habits and making us belong to a place and a collective. Our history, in the collective, shapes us, imbues us with meanings, and makes us experience the world in a singular and plural way at the same time:

Singular because this life is my life, in this place and at this time, which particularize my imagination and perception, my moods and loves, my knowledge and my actions, in short, because it is unique. Plural because I share with those I live with a history of values, feelings,

language, ideas, ways of living and dressing, beliefs, and habits. In living together, we participate in a network of meanings, and in it, we give meaning to our particularities (SILVA, 2018, p. 73).

From this perspective, studies on tourism can be approached at different times and in various ways, according to the pedagogical guidelines and curricula of schools. Content related to the characteristics and tourism potential of specific regions, the importance of tourism for the economy and local development, the social and environmental impacts of tourism, cultural and identity-related issues, among other topics, can be explored.

Additionally, High School, also covered by the BNCC, allows for a deeper approach to tourism studies in subjects such as Geography, History, Sociology, Economics, and even in technical subjects related to the field, such as Tourism and Hospitality. For example, the relationship between tourism and geography, discussed by Sales & Assis (2010), showed that developed countries are the largest senders and receivers of tourists, primarily due to the high quality of life of their populations. This fact was compared with the realities of the students' own regions, with the goal of understanding that, although tourism is not the only activity responsible for a region's economic development, it is one of the main factors contributing to the growth of the economy and the quality of life of the population that benefits from it. In history classes, Venera (2010) found that tourism appears in the construction of narratives about material and immaterial heritage as a possibility for exploring the historical formation of individuals and fostering historical awareness, aiming to present a place based on what the author thought could attract tourists.

Another practical example was carried out by Gomes, Mota & Perinotto (2012), who demonstrated the feasibility of using pedagogical tourism as a teaching and learning strategy at a public school in Parnaíba, Piauí. The teachers understood that, through coherent planning aligned with a school's pedagogical project, field trips are important educational tools to stimulate students' interest in their own culture, history, and identity, making lessons and content more comprehensible and dynamic.

However, it is worth noting that the BNCC establishes only general guidelines, and it is up to schools and teachers to adapt and contextualize the content according to the local reality and the interests of the students. Therefore, the ways in which tourism studies are approached may vary depending on the educational institution.

In an increasingly globalized world, with easy access to information about international tourist destinations, we often neglect the beauties and cultural riches that are literally at our doorstep. In this context, the importance of students exploring and getting to know the tourist activities in the region

Educational practices in Basic Education: relationships between language, neurosciences and tourism where they live stands out. This proximity to the local environment not only enriches the students' cultural understanding but also fosters a deep sense of belonging and responsibility for the sustainable development of the community.

One of the main advantages of students engaging with local tourist activities is the opportunity to discover and value the historical and cultural wealth that is often overlooked. Regions have a unique tapestry of traditions, customs, and histories that can enrich the students' formation in an unparalleled way. By exploring museums, historical sites, and participating in local events, students have the chance to immerse themselves in the narratives that shaped their community and, consequently, their own identity.

Furthermore, local tourism plays an important role in the economic development of regions. By encouraging students to learn about and appreciate local tourist activities, we contribute to promoting local commerce and businesses. The consumption of regional products and services not only strengthens the local economy but also creates a virtuous cycle of prosperity, generating jobs and opportunities for the community's inhabitants.

As students familiarize themselves with local tourist attractions, they become natural ambassadors of their region, and this emotional connection and the knowledge acquired motivate them to share their discoveries with family, friends, and even visitors from other regions. This word-of-mouth promotion is a powerful marketing tool, helping attract more tourists and boosting local tourism in a sustainable way.

Environmental awareness is also a tangible benefit of students' engagement with local tourism activities. By exploring the region's natural beauties, students develop a deep appreciation for the environment around them. This awareness is crucial for promoting sustainable practices, contributing to the preservation of local ecosystems and mitigating the negative environmental impacts of tourism.

Another relevant aspect is the promotion of social inclusion provided by local tourism. Getting to know the tourist activities in the region can stimulate the appreciation of cultural diversity, encouraging respect for local traditions and customs. Tourism can be a bridge for intercultural understanding, promoting tolerance and acceptance of diversity, which are essential in an increasingly globalized world.

Incorporating students into the context of local tourism activities also opens doors to practical learning experiences. Visits to local businesses, interviews with industry entrepreneurs, and participation in tourism events provide students with a practical and in-depth view of how tourism operates in their region. These experiences enrich academic learning by connecting theory and

practice in a relevant and motivating way.

We advocate for this immersion in local tourism activities to be done responsibly. Sustainable tourism is key to ensuring that future generations can enjoy the same wonders available today. Students should be guided to understand and respect the principles of sustainability, aiming to minimize their environmental and cultural impact on the areas they visit.

Getting to know the tourism activities in the region where they live is a fundamental element in the holistic formation of students. This proximity to local culture not only enriches the educational experience but also contributes to the economic, social, and environmental development of communities. In the next sections, we demonstrate how the work of encouraging students to explore the riches around them was carried out, with the aim of building conscious citizens, connected to their roots, and committed to the well-being of their communities.

Methodology

Beginning of the Investigation

We chose as a reference the material published by the São Paulo State Department of Tourism, titled "Tourism in School," which provides a foundation of basic concepts related to tourism and offers some activity suggestions (SÃO PAULO, 2019). The following report was constructed based on the classes of the Research and Intervention and Portuguese Language subjects in a public high school, with 32 students.

In order to gather the initial understandings about tourism and knowledge of the local reality, we dedicated our first class to a diagnostic survey on the topic to be worked on, with the following questions:

- 1) What is tourism to you? What does it mean to be a tourist?
- 2) Have you ever been to a place you really wanted to visit? If not, what places do you want to go to?
- 3) What does a place need to have to motivate you to visit it?
- 4) In the region where you live, what are the tourist attractions? Start by thinking about your city, then the surrounding municipalities, and the state.

In a class of 32 first-year high school students, tourism is linked to the idea of travel, preferably to a place far from the point of origin, such as another state or country. Among the responses about

Educational practices in Basic Education: relationships between language, neurosciences and tourism places to be visited, the United States appear in more than 50% of the answers, followed by Europe (especially France) and coastal regions of Brazil. At this point, we took the opportunity to discuss how the media influences our imagination and choices. We see here that the media plays a significant role in shaping our perceptions and the way we make decisions, including those related to tourism. It plays a fundamental role in the construction and dissemination of tourist images, often resorting to stereotypes and idealizations when portraying tourist destinations.

We took this opportunity to remind students how this can lead to a distorted view of reality, creating unrealistic expectations and undermining the authenticity of the tourist experience. Furthermore, when a destination is widely presented in the media, whether through movies, TV series, or sporting events, it tends to spark interest and become more attractive to tourists. Media exposure can increase demand for a specific location and, consequently, influence travelers' choices.

Not surprisingly, we noticed in this small diagnostic evaluation that there is a tendency to value the exotic: People often have a tendency to value what is considered "exotic" or different from what they are used to. This valuation can lead to a preference for international destinations, which offer cultural experiences distinct from those found in Brazil. Additionally, the mass promotion of attractions and travel experiences through social media, TV shows, movies, and other sources of information encourages interest in destinations beyond Brazil's borders, especially the United States.

Among the assessment techniques, we chose Sentiment Analysis (SA), which aims to automatically identify and extract opinions, feelings, and emotions expressed in a text, which can reveal how people feel about something specific (NARAYANAN et al. 2009).

For the analysis of the satisfaction survey responses, we will use the SentiWordNet tool³, widely used in opinion mining, which is based on the WordNet lexical dictionary, an online lexical database with English words grouped into synonym sets, each representing a lexicalized concept, called synsets (MILLER, 1995). SentiWordNet assigns to each WordNet synset three score values indicating the sentiment of a text: positive, negative, and objective (neutrality). Each score is obtained using a semi-supervised machine learning method, and the values range from 0 to 1, with their sum equal to 1.

To better understand how the method works, based on a survey of methods conducted by Araujo et al. (2013) for sentiment analysis on Twitter, an example synset $s = [\text{bad, wicked, terrible}]$, extracted from a tweet, was used. The result obtained by the method was 0.000 for positivity, 0.850 for negativity, and 0.150 for objectivity, respective.

Since the tool uses words in English, we will need to translate all the responses in order to

³ Available at <http://sentiwordnet.isti.cnr.it/>, accessed on November 25, 2019.

process the data.

We will also have access to WordnetAffectBR, a lexical database for applications that use emotional vocabulary (PASQUALOTTI; VIEIRA, 2008).

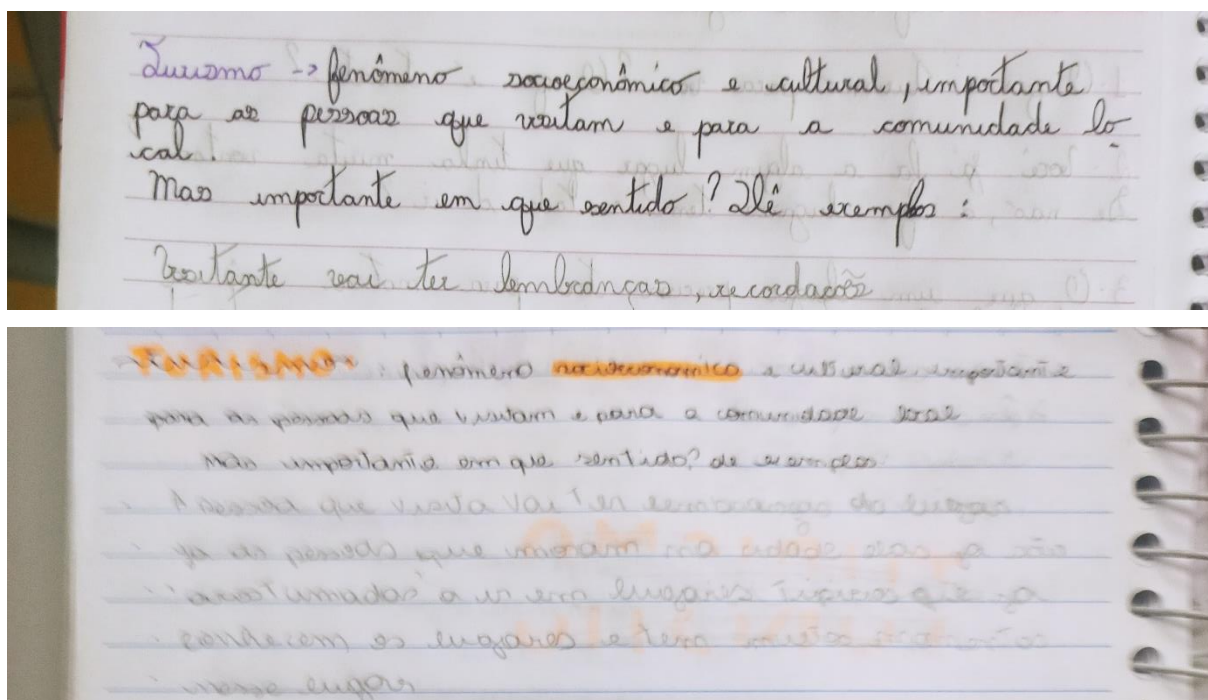
Next, to cover the various tourism possibilities of the region, we will work with the concept of tourism as a cultural and economic phenomenon.

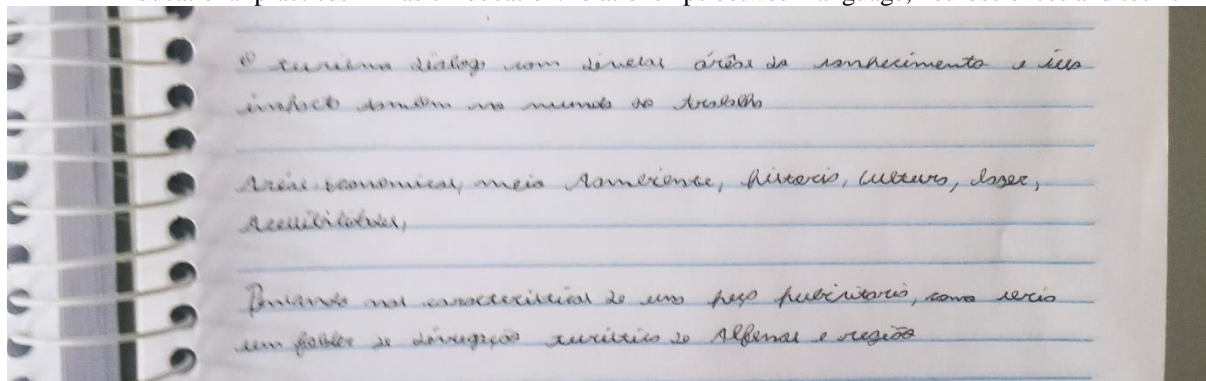
Tourism as a Socioeconomic and Cultural Phenomenon

In the second step, we wrote "tourism – a socioeconomic and cultural phenomenon, important both for the visitors and the local community" and posed the question: "But important in what sense?".

We see in the responses that the concept of "tourism" is linked to experiences, memories, and recollections. Furthermore, it engages with various fields of knowledge, such as Economics, History, Geography, Culture, Leisure, and Accessibility.

Figure 1: Sample of the students.





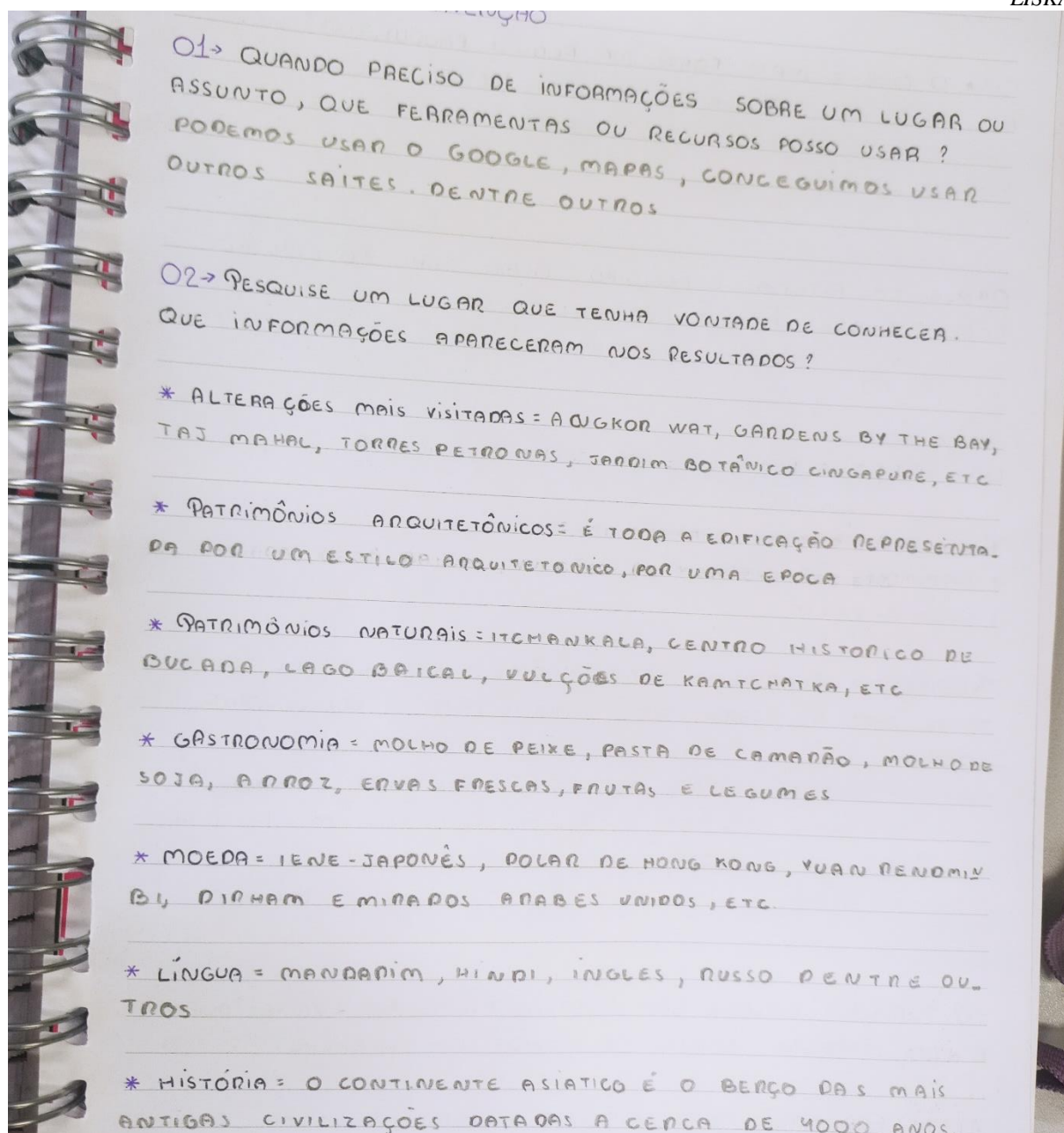
Source:.

Based on this survey, we proposed an investigation into the place they had expressed a desire to visit, with the following question:

- 1) When I need information about a place or a topic, what resources or tools can I use?
- 2) About the place you wish to visit, and with the help of the resources and tools mentioned, write a bit about the attractions, architectural, cultural, and natural heritage, currency, language, and history.

The following example is from a student whose dream is to visit Asia. In addition to understanding more about its vastness, it was important for her to learn more about its history and currency, as an initial attempt to plan a visit to the region:

Figure 2: Sample of the students.



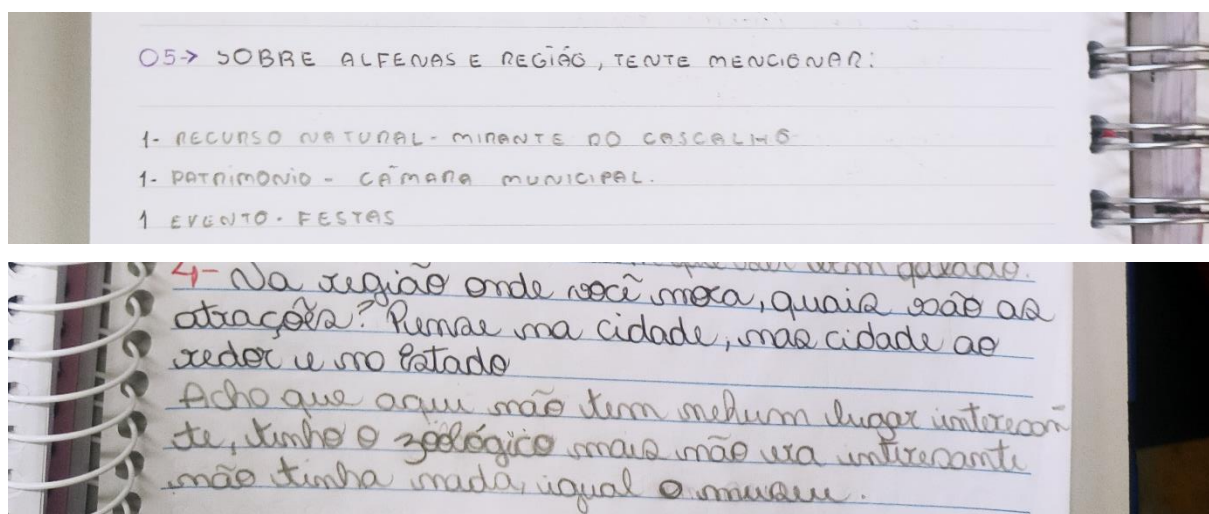
Source: Prepared by the author.

In this context, we are reminded of the Methodology of Risk (MATTE, 2008). Normally, in a classroom, what comes from outside is entirely filtered by the teacher, and all work produced in class is directed to them. Matte concludes: "The only need is a grade, that is, an abstract evaluation that, instead of truly assessing, merely decides whether the student will need to go through the process again" (MATTE, 2008, p. 174). The focus of the methodology of risk is autonomy, dedication, persistence, reflection, and responsibility. Here, we thought of an example of an activity beyond writing a text addressed to the teacher, where students could create their own infographics and

Educational practices in Basic Education: relationships between language, neurosciences and tourism promotional materials, share them among peers, and post on social media; the expectation is to make the classes, tools, and teaching technologies truly engaging and the learning more playful.

In this lesson, we also took the opportunity to reverse the process: in case anyone would want to visit the place where the students live:

Figure 3: Sample of the students.



Source: Prepared by the author.

Here, the students were encouraged to better understand the city where they lived and to make some critiques about the opportunities for leisure and recreation, including pointing out the neglect of government policies, such as the deactivated Municipal Park (zoo), the lack of other parks, and the absence of a shopping mall for weekend outing.

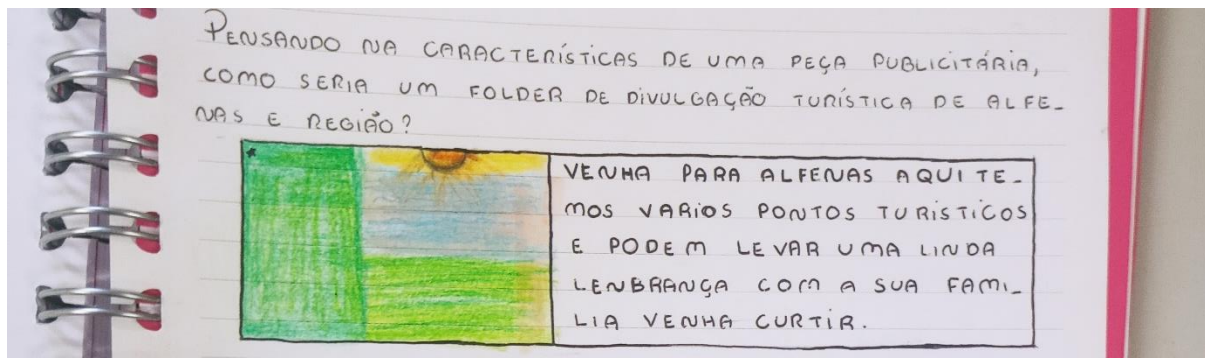
Third Moment – Potential of the Municipality of Alfenas-MG

In the third moment, we asked the students to list some attractions of the city. To do this, they relied on their own knowledge of the region, as well as research on the internet about the listed points. We also took the opportunity to work on the concepts of cultural, natural, material, and immaterial heritage.

As a product, the idea was to create a promotional material highlighting the tourist attractions of the city, based on research about what Alfenas-MG has to offer. We also worked with advertising genres, such as advertisements, and informational materials, such as infographics, with the intention of grouping this knowledge to produce a guide with tourist information

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Figure 4: Sample of the students.



Source: Prepared by the author.

Here, we tried to highlight, in addition to the architectural heritage, the importance of the Alfenas Open-Air Market and the religious festivals promoted by the Parishes of Nossa Senhora Aparecida, São Pedro, and the São José and Dolores Matrices. These are important elements of tourism in a city, offering visitors a unique opportunity to experience the local culture, try traditional foods, learn about regional handicrafts, and engage in festive celebrations. We outlined their importance for the local economy, the preservation of cultural traditions, and the promotion of authentic exchanges between residents and visitors. These experiences offer tourists the chance to connect with the history and customs of the area, taking home lasting memories and a deeper understanding of the city's culture.

We also explored the realization of major events, such as "Federal Fantasy" and "Velório do Carneiro," aimed at boosting the local economy, promoting tourism, and providing opportunities for entertainment and leisure. They attract many visitors from other cities and regions, activating the hotel networks, restaurants, transportation, and local shopping during their stay. This influx of tourists contributes to an increase in revenue for local businesses and the growth of the city's economy, in addition to generating temporary jobs, offering employment opportunities for the city's residents.

Importance of Studying and Creating Infographics

We argue that studying and creating infographics can bring a series of benefits for both students and teachers. Infographics are visual resources that combine textual information and graphic elements in an organized and attractive way, allowing for the presentation and understanding of data clearly and concisely. They play a crucial role in the effective communication of ideas and in promoting

Educational practices in Basic Education: relationships between language, neurosciences and tourism critical thinking.

In the BNCC (BRAZIL, 2017), they are part of the FIELD OF STUDY PRACTICES in Portuguese, related to participation in reading/writing situations that allow students to become familiar with expository and argumentative texts, language, and practices related to study, research, and scientific dissemination, favoring learning both inside and outside the school. Some genres in this field in print or digital media include: school task statements; experiment reports; tables; graphs; infographics; diagrams; interviews; scientific press releases; encyclopedia entries, among others.

In visual communication, these are materials that leverage the power of visual communication to convey complex information in a more accessible way. They help students organize and synthesize concepts, transforming them into clear and concise graphic elements. By developing visual communication skills, students become more proficient in expressing their ideas effectively.

Furthermore, they require students to select the most relevant information and organize it logically. This activity helps develop critical analysis and synthesis skills, allowing students to identify the key points of a text or topic. They assist in structuring information in a visually appealing way, making it easier to absorb and retain content. For this reason, they contribute to the synthesis and retention of information: By summarizing and visualizing complex information in an infographic, students are encouraged to understand the content more deeply and identify the most important points. This synthesis activity strengthens the understanding and retention of information, facilitating later review. Infographics serve as a visual reference that students can consult when they need to recap the main concepts covered in a particular subject.

We also argue that creating infographics involves combining textual and visual elements creatively. Students can explore different graphic resources, such as charts, illustrations, and colors, to convey their ideas in an original and engaging way. This approach stimulates creativity and allows students to express their perspectives uniquely, making learning more engaging and personal.

They also allow for both independent and team-based work, promoting active learning, as students are encouraged to take a more active role in constructing knowledge. By researching, analyzing, and organizing information, they become protagonists of the educational process, developing research and self-direction skills. Furthermore, creating infographics can be done collaboratively, allowing students to work in teams, share knowledge, and learn from one another.

The productions were created using Canva, which stands out as a versatile and powerful tool, especially when it comes to producing infographics in the classroom, as it is an intuitive and accessible online graphic design platform. We know that this platform has won over educators and

students because of its ease of use and the professional quality of the materials it produces. It has a user-friendly interface, which allows even users with little experience in graphic design to create attractive and informative infographics. This accessibility is crucial in the classroom, where teachers and students can focus on content instead of facing complex learning curves.

The variety of pre-designed templates offered by Canva is another feature that makes it a valuable tool for creating educational infographics. Teachers can choose from a wide range of adaptable layouts, suitable for different subjects and themes. This saves precious time, allowing educators to focus their efforts on creating meaningful educational content instead of starting from scratch. Canva's flexibility meets the needs of both teachers who wish to customize their materials and those looking for quick and effective solutions.

Another crucial aspect is the collaboration capability provided by Canva. In educational settings, where teamwork is often encouraged, the platform offers sharing and real-time editing functionality. This means students can collaborate on projects, even if they are physically distant. Online collaboration fosters social skills and promotes a more interactive and participatory approach to the learning process.

The effectiveness of Canva in producing infographics goes beyond visually appealing designs; the tool also contributes to the development of essential skills in students. By creating infographics, students improve their research, selection, and synthesis skills. This practice strengthens their critical thinking abilities while familiarizing them with the visual presentation of complex data and concepts.

The use of Canva in the classroom prepares students for the ever-evolving digital world. We live in an era where visual communication plays a crucial role, and the ability to create high-quality infographics becomes a valuable skill. By mastering Canva, students acquire technological competence that prepares them for future challenges, both in higher education and in the job market.

The accessibility of Canva also extends to its availability on different devices. Whether on a computer, tablet, or smartphone, users can access and edit their projects at any time, making learning more flexible and adaptable to the different lifestyles of students.

In a broader context, the use of Canva in the classroom promotes a more inclusive and diverse approach to learning. Infographics have the power to make complex information more understandable, catering to different learning styles. Visual learners benefit from the graphic representation of concepts, while auditory learners can utilize the associated textual content. Therefore, Canva not only facilitates the creation of educational materials but also enriches the learning experience for all students.

Educational practices in Basic Education: relationships between language, neurosciences and tourism

Next, we list some products created by the students themselves, based on investigations into the tourist potentials and heritage of the city of Alfenas-MG. Many of the places listed were even unknown, and the students were amazed at how much wealth the region has to offer after exploring it more thoroughly:

Figure 5: Infographics created by the students under the supervision of the teacher.





Source: Prepared by the author.

Analysis

We noticed that the lack of information plays an important role. Residents may not be aware of the tourist attractions in their own city. There may be a lack of proper promotion by local authorities, tourism agencies, or media outlets. As a result, people are not exposed to the necessary information to spark their interest in local tourism.

Educational practices in Basic Education: relationships between language, neurosciences and tourism
We compiled in Graph 1 the frequency of words with negative sentiments based on the students' responses regarding how they perceive the region they live in, in terms of tourism. The "Sentiment Analysis" methodology helps to reveal the negative view that residents have, allowing for a systematic and objective evaluation of opinions and feelings, which is essential for understanding the specific nature of criticisms and dissatisfaction regarding tourist attractions. This survey, enabled by Sentiment Analysis, provides valuable insights for tourism management bodies. These insights can guide strategic decision-making, directing efforts and resources towards initiatives aimed at improving the relationship between tourism and the local community.

Figure 6: Gráfico de Análise de Sentimentos - Sensação negativa de turismo dos estudantes.

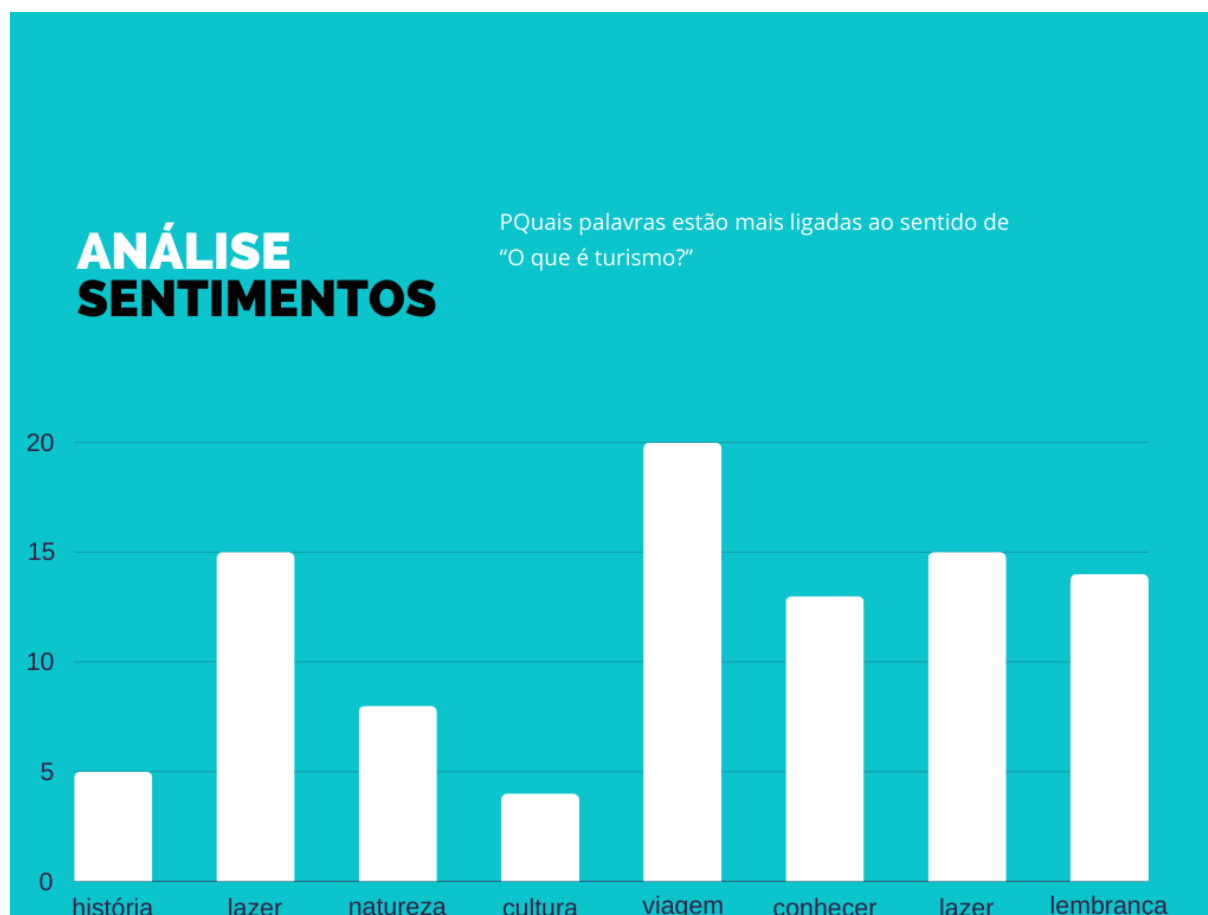


Source: Prepared by the author.

In Graph 2, we have the most frequent words according to the students' perception of what tourism is. We see that it is common for them to associate the idea of tourism with traveling and creating memories. Furthermore, regarding spaces, attractions for leisure and fun (such as shopping malls, natural parks, and community centers) and knowledge (places different from what they already

know) are necessary. We observed that history and culture, although related to tourism, are not the main factors in the choices of the young people who participated in the classes.

Figure 7: Sentiment Analysis Chart - Tourism in Words from the Students' Perspective



Source: Prepared by the author.

Another reason is that residents may have a tendency to take familiar places for granted. When we live in a place for a long time, it is easy to neglect or underestimate the attractions and tourist spots that are right in front of us. What seems common and routine to residents can be something new and interesting for visitors. Therefore, residents may not recognize the tourist value of certain locations in their own city.

We believe that one way to combat this lack of knowledge is through awareness and promotion campaigns carried out by local authorities, tourism agencies, and local communities. These initiatives can include the promotion of cultural events, tourist guides, online platforms, and incentive programs to encourage residents to explore and engage with local tourist attractions.

The attempt to have students create infographics themselves was not only an opportunity to

Educational practices in Basic Education: relationships between language, neurosciences and tourism gain knowledge about their own region but also to give these products additional value, as they reflect the authentic perspective and knowledge about the destination. The students become familiar with the history, culture, lesser-known tourist spots, and authentic experiences that are not easily found in conventional travel guides. By getting to know and sharing their knowledge, they can provide valuable and unique information to visitors.

In the contemporary educational landscape, it is crucial to explore pedagogical strategies that stimulate student engagement and promote the integration of different skills. In this context, the production of tourism infographics emerges as a powerful tool to enrich Portuguese language lessons, offering an innovative approach that combines language, culture, and technology. We know that teaching the Portuguese language plays a fundamental role in the academic and social development of students, far beyond providing grammatical and vocabulary mastery, with the aim of stimulating creative and critical expression among students. Integrating cultural and social elements into the learning process is an effective approach to make lessons more relevant and engaging. For this reason, infographics, due to their visual and interactive nature, offer a dynamic alternative to traditional teaching methods. By incorporating graphic elements, short texts, and relevant data, infographics transform complex information into visually appealing and easily understandable representations. This feature makes them particularly effective in teaching concepts related to tourism.

This production promotes the integration of various linguistic skills. Students not only improve their reading and interpretation abilities but also develop the capacity for synthesis by condensing relevant information into visually impactful formats. Additionally, writing short texts to accompany the infographics stimulates written expression, contributing to the development of discursive skills. These skills are outlined in the BNCC, such as articulating the verbal with schemes, infographics, various images, etc., in the (re)construction of the meanings of scientific dissemination texts, and retextualizing from the discursive to the schematic – infographic, diagram, table, graph, illustration, etc. – and vice versa, transforming the content of tables, diagrams, infographics, illustrations, etc., into discursive text, as a way to expand the possibilities for understanding these texts and analyzing the characteristics of multisemiotics and the genres in question.

Producing texts of this nature offers a unique opportunity to explore cultural diversity through language. By addressing tourist destinations, local customs, and historical aspects, students not only expand their vocabulary in Portuguese but also gain a deeper understanding of the cultural richness associated with tourist destinations. This approach not only strengthens linguistic skills but also promotes the appreciation of cultural diversity, encouraging a broader and more inclusive view of the

world. This requires creative and innovative thinking from the students. By challenging them to present information in a visually attractive manner, Portuguese language lessons become spaces conducive to the development of creativity. Students are encouraged to explore different forms of graphic representation, choose effective layouts, and use visual resources in an impactful way, providing a learning experience that goes beyond the traditional boundaries of teaching.

With the help of Canva, a graphic design platform that allows users to create social media graphics, presentations, infographics, posters, and other visual content, the activity provides a meaningful integration of technology in the educational environment. By using online tools to create infographics, students not only enhance their technological skills but also become familiar with resources and apps that are valuable in the contemporary context. This approach not only enriches Portuguese language lessons but also prepares students for the digital challenges of the 21st century.

Results and discussion

The proposed approach favors the implementation of formative assessments, allowing teachers to monitor students' progress continuously and the development of student autonomy, as they take an active role in researching, selecting, and presenting relevant information. This sense of ownership stimulates responsibility for their own learning and promotes a more participatory and engaged approach from the students.

By integrating visual, cultural, and technological elements, this strategy promotes the integration of linguistic skills, stimulates creativity, and fosters the appreciation of cultural diversity. Furthermore, it prepares students to face the challenges of the modern world by incorporating technology in a meaningful way.

In this context, it is crucial for educators to seek innovative ways to enrich the teaching-learning process. Tourism infographics, by providing a visually stimulating and culturally enriching approach, stand out as a valuable tool in the pedagogical toolkit, contributing to the integral and critical development of Portuguese language students.

As we attempted in our classes and hope to demonstrate in our small experiment, it is possible to combat this lack of knowledge through awareness and promotion efforts, in order to spark interest and encourage residents to explore and take advantage of the tourist attractions in their own city.

We discussed the importance of tourism for the development of a region and how student participation in educational activities improved their understanding of this topic. The students' involvement in projects related to tourism in the Alfenas-MG region, for example, not only increased

Educational practices in Basic Education: relationships between language, neurosciences and tourism knowledge of local tourist attractions but also encouraged the appreciation of regional culture. The applied methodology allowed students to become more engaged with the community and develop informational materials that could be used to promote local tourism. In the future, with the importance of the ongoing project, the school could seek additional resources for students to visit these and other attractions in the region.

The knowledge acquired by the students not only enhances the teaching and learning process but also contributes to the economic and social development of the region, as they understand the importance of tourism, becoming natural ambassadors of their community and helping to strengthen the local economy. Moreover, this type of educational activity promotes a sense of belonging and responsibility, encouraging sustainable practices and respect for cultural diversity.

Final considerations

Using the theoretical constructs from neuroscience, we realize that some people hold the mistaken belief that tourist attractions are only for visitors from outside the region. They may underestimate the value of their own cultural and natural heritage, assuming there is nothing interesting to see or do in their area. This lack of awareness can be exacerbated by the lack of proper promotion of local attractions.

The creation of tourist infographics by local residents plays an important role in promoting tourist destinations by providing authentic, personalized, and distinctive information. These infographics can help visitors have more enriching experiences while also engaging the local community and strengthening sustainable tourism.

Additionally, we observed, using the Methodology of Risk (MATTE, 2008), what can be done in the classroom with the conception of language as a social construct. Thus, meanings were received in a situated manner, creating new ways to identify and express ideas, feelings, and values. Students may feel more motivated when looking at their work with meaning and value, displayed on the walls and circulating on social media with the aim of helping others, than when seeing a paper returned to them with a score at the top, some marks, and later filed away or found in a trash bin.

Schools and educational institutions need to include the study of local heritage in their curricula, and the lack of such study, as we have seen, results in a generation of local residents who are unaware of the tourist riches around them.

It is important to involve and engage the local community to address the ignorance about local tourism. If there is no culture of valuing and supporting tourist attractions within the community, it

is likely that many local residents will remain uninformed. With these lessons, we have tried, as much as possible, to address some of these difficulties and hope to investigate more thoroughly in order to involve political organizations in these studies of promotion and awareness of the heritage of Alfenas-MG.

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