

## **The Digital App “*Jeriguigui and the Jaguar*” As a Pedagogical Subsidy in Literacy Practices at Elementary Schools**

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### **ABSTRACT**

This paper aims at bringing to light the importance of exercising language in a free, poetic and radical way, understanding such an exercise as absolutely necessary to challenge dominant discourses and practices. In this sense, writing in any of the discourse genres can be seen as an ability that needs a lot of exercise. Our language needs to acquire the force of language that only the poetic and free exercise with it can provide. In the case of the construction of a digital game aimed to be used in Elementary Schools, all the dialogues were written in verses to encourage children to read and write poetic texts, Research was founded on participatory methodology (Freire, 2005) and the results suggest that children learn faster when involved in games and poetic texts that facilitate their memorization.

**Keywords:** digital game; literacy; Elementary Schools

### **INTRODUCTION**

I present the results of ten-year research that considered indigenous attendance at Brazilian universities. I founded research, in part, on New Literacy Studies and, in a complementary way, on some conceptions drawn from Translation Studies and Cultural Studies (Lotman, 2005). The research project was at a first phase, based on procedures and strategies present in the “Academic Literacies Model” (Lea&Street, 2006); at a second phase, however, I found it necessary to introduce elements drawn from Translation Studies, particularly aiming at the construction of a Theory of Language intimately related to Poetics, Ethics and Politics. Such a proposal is based on a critical approach that, among other aspects, calls into question the concept of orality in the way it has been traditionally conceived

(Meschonnic, 2011; Martins, 2022a).

In the presentation at the 5th ELLIC “English Language & Literature International Conference”, I showed the results of a Research Project developed in 2021/2022 in our Research Group LEETRA (UFSCar/Brazil) that implied the production of the digital game “Jeriguigui and the Jaguar”. The game is adequate for Kindergarten and Elementary School as a subsidy in literacy practices involving six to nine-year-old children. We intend to use it in interdisciplinary literacy projects mainly to enhance children’s ability to read and write, presupposing: the involvement of children in games and the pedagogical potential of role-playing and games in general; the existence of many children between seven to nine years old that begin to show difficulties in reading and writing; the importance of including and promoting research and different registers in literacy projects; the importance of interdisciplinarity; ethical and political issues related to sustainability and endangered languages.

It is a fact that in Brazil there is still a learning delay in what refers to the access to literacy practices by socioeconomically disadvantaged children. James Gee (2001) in

“New Times and New Literacies” refers to the literacy and to the digital divides pointing to the necessity “[...] to fight the neoliberal agenda and make schools sites for creativity, deep thinking, and the formation of whole people”, when simultaneously working to supply curricula and portfolios with literacy and digital tools. The game was constructed aiming to supply such a lack in the neoliberal agenda. It is based on a mythical narrative of bororo indigenous people who live in the central-west region of Brazil. The myth tells the story of an eleven-year-old boy who was punished by his father and had to accomplish several mortal actions. In the middle of his journey, he meets the jaguar and makes a treat with him. He provides the hungry jaguar with macaws and receives the fire as a reward.

The consecution of the game included translation processes from the indigenous oral narrative to a first script and the digital game format. The narrative was adequate for its intersemiotic translation into a digital platform game because of the existence of a child as a hero and of several challenges to overcome. While playing the game, the child gets into contact with information concerning endangered languages. The game was designed as a didactic artefact to be explored in language teaching and learning processes. It has several dialogues among different animals which, being written in verses with many rhymes, provide the children with information about Brazilian indigenous peoples, endangered languages and also animals at risk of extinction.

I will first mention some data that refer to indigenous students whose

academic works I have been supervising because it was after having contact with some xavante indigenous narratives that I could have the idea of a game founded on a myth and adapted into a digital game with pedagogical purposes.

### **Some data about the research environment**

In Brazil, a country of around two hundred million people, we have the largest concentration of indigenous people in isolation in South America. According to the 2010 census of the Brazilian Institute of Geography and Statistics (IBGE), the Brazilian indigenous population includes almost 900 thousand indigenous persons, which means 0,4% of our total population. There are 305 different ethnic groups and 274 languages. Among indigenous persons over the age of five, only 37.4% speak an indigenous language, while 76.9% speak Portuguese. Our country was colonized by the Portuguese Empire from the year 1500 until our Independence at the beginning of the 19th century, that is the reason why Portuguese has become our official language.

The Federal University of São Carlos is located in the southeast region of Brazil, far from Mato Grosso and Amazon states, where the majority of indigenous people live in our country if we take into account only data drawn from 2010 IBGE census. Some issues must be considered, however: 1) the fact that our last IBGE census dates from 2010, i.e., twelve years ago; 2) the fact that each year more people in Brazil declare themselves indigenous; 3) the existence of intense racism and stigma. In this sense, until the 2010 census, practically only people living inside "aldeias" (indigenous reserves) were registered as indigenous people, whereas in reality, many subjects living in the peripheries of a metropolis such as São Paulo and Rio de Janeiro are migrants with indigenous ascendance.

Our university is the only Brazilian university that offers vacancies at all departments to students that self-identify as indigenous, including the Departments of

Engineering, Physics or Medicine, just to give some examples. As a professor of the Department of Modern Languages, I have started engaging with indigenous undergraduates since 2008 when there was the first entrance exam aimed to selfidentified candidates. They used to come to our department searching for support concerning academic literacy. In 2010 I had contact with students belonging to the following ethnicities: Baniwa (Amazon), Bororo (Mato Grosso), Cambeba (Amazon), Manchinery (Acre) Pankararu and Xukuru (Pernambuco), Terena (Mato Grosso do Sul), Xavante (Mato Grosso) and Balatiponé (Mato Grosso). They came from very distant places and faced great difficulties due to many factors including

material conditions.

In this paper I will refer in more detail to two indigenous students: a balatiponé undergraduate who attended our course at the Department of Modern Languages and developed research aimed at the production of a didactic artefact; a xavante undergraduate whose coursework in Pedagogy I supervised and who was interested in giving visibility to mythical narratives.

I will mention interlinguistic translation: from Portuguese to Balatiponé and from Xavante to Portuguese. It is worthwhile pointing out that Portuguese is the main official language in Brazil, and Balatiponé and Xavante are languages spoken by different Brazilian indigenous nations or communities. It is also important to make it clear that when referring here to translation I presuppose the defence of Lawrence Venuti (1995) of foreignization (rather than domestication) and its relevance for the debate on decolonization. It also is worth pointing out that at this phase we dealt with interlinguistic translation, whereas for the construction of the game I dealt with intersemiotic adaptative translation.

### **Some theoretical principles: translation as the basis of every language**

When we mention translation, the first idea that comes to our minds is related to interlinguistic translation, i.e., translation from one to another national language.

I need to mention, however, another dimension of translation that is related to the intimate functioning of every and all languages and is not usually mentioned except in specialised publications in the area of Linguistics and Translation Studies. From this specialized point of view, translation refers to the functional dimension that underlies languages in general and affords the possibilities of inter and intralinguistic translations as well. It is, in fact, the poetic dimension of languages in general and implies a humanistic, creative, ethical and anthropological form of considering languages in their genuine processual functioning. In the case of the game, the many dialogues written in verses and rhymed have the purpose of pointing to such a poetic creative dimension of language, in part because in this way it may be easier for children to learn and memorize; in part to encourage children to make use of language within a poetic profile.

According to Meschonnic (2011), a genuine theory of language implies the interaction between Ethics, Poetics and Politics. In other terms, we can say that when dealing with language in all of its force that is contained in Poetics, we also deal with Ethics and Politics. In the case of the game “Jeriguigui and the jaguar”, the ethical and the political aspects were also present because of the following aspects: we were bringing to light the

importance of dealing with indigenous languages and cultures at conventional schools; we were calling the children's attention to issues concerning the sustainability of our planet; we were calling their attention to the fact that there are many animals in risk of extinction, and that many indigenous peoples, languages and cultures are in risk of extinction as well – not only in Brazil.

We were in a certain sense challenging dominant discourses and encouraging children to do the same, when trying to free ourselves from a colonized way of making use of language. We understand it is urgent to overcome a way of referring to orality that we in part inherited from ethnologists. Indigenous people would be characterized as primitive and savage users of oral language, whereas civilized people (mainly of the West and the North Hemisphere) would be characterized as most advanced human beings and users of written language.

In the research projects I coordinated with indigenous undergraduates at our university, I could find in the valorization of native chants and narratives, and in their translation, a way they could experience language in its more genuine polysemic functioning. The first objective was the translation of the chants and narratives to other languages, but underlying it was the conviction of the existence of criticism and metaconsciousness inside translation procedures: because by translating poetic texts, one can get in contact with a more polysemic form of language and, thus, exercise their human capacity and ability to the use of language, freeing themselves from institutionalized ties.

In the case of the pedagogical work in Elementary Schools, I was convinced that when involving children with games that included the poetic language and also different indigenous and environmental issues, we can enhance linguistic and cognitive advances. I knew previously that both subjects attract their attention, and also that nowadays all of them are involved with different games.

In short: I refer here to poetic translation as a free exercise with language, that motivates:

- (a) searching for the many different possibilities of words in the virtuality of language;
- (b) experiencing different possibilities of syntactic arrangements;
- (c) comparing different statements and feeling their language force and possible impacts;
- (d) understanding and feeling more and more the poetic and creative

possibilities of language.

The emphasis on translation in the sense I am dealing with this terminology here involves, thus, calling the attention to the necessity of exercising language freer than we often do inside different institutions, as is the case of schools and the university. That is why I decided to produce a digital game that could be used in interdisciplinary literacy projects and deals with sustainability issues and rhymed dialogues.

### **A first experience: the construction of a balatiponé didactic book**

Luciano Kezo was twenty-two when he developed research resulting in the construction of a didactic book designed to furnish his people with more knowledge about their language and their culture. He was the first Brazilian indigenous undergraduate to receive support from a prominent scientific foundation with a project related to the construction of a didactic book aimed to be used at the “aldeia”. He is one of the only speakers of the Balatiponé language which is considered extinct by UNESCO.

Students coming from Kezo’s Umutina community speak Portuguese fluently and know very little about Balatiponé, which is the language of their ancestors. A fact that happens with any language is that they function according to different activity circles or semiospheres (Lotman, 2005) that implies differences in syntax and vocabulary. Such a fact can be seen in indigenous communities, where the language exercised when narrating mythical stories is different from the one present in sacred chants. It was a fact that we would have to face the same challenges implied in the translation between various activity circles and semiospheres when adapting mythological narratives to a digital game.

The construction of a didactic book to revitalize Balatiponé language among his people contributed to his self-esteem and, in an indirect way, to his access to academic writing. In such a case, as his supervisor I had to assume a horizontal position (Freire, 2005), understanding that both individuals master, each of them, a form of knowledge which is different and as important. That is why when we want to challenge dominant discourses we also need to challenge the way discourses circulate in society. We need to open ways and possibilities which would not be opened if we behaved inside strict rules of the status quo.

I transcribe below a small mythical narrative taken from Kezo’s book. Kezo is also an excellent drawer, an artistic ability that is not

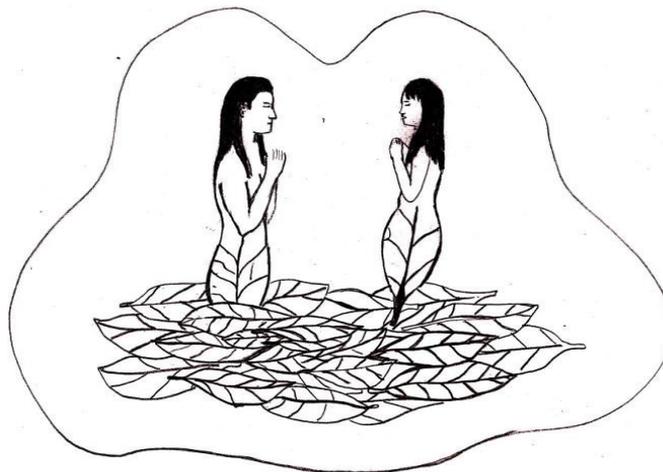
uncommon among indigenous youngsters.

### **O'rebutá barepô, urixá puwazo**

Men and women originated from a leaf

Hindondo nokuteynatono, Balatiponé kiawá moto. Unukukwarekwá ayxoré Haypukú amenú moto toré. Unukwarekwá meyukí, atabé ipualo inyazo, atokwá uri he xakaboe to moto he. Ipúxixinikí axipá. Bolotoximana, amameti mataré, jikixo rinimã pwe arikixi, ouá o'hebutá balatiponé. Haypuku kuku aketo, samati balatiponé he amatara ouá ipoxixiniki há xipá.

[At a distant time, there were no people on Earth, only a big man walked, his name was Haypukú, he was very sad, then he decided to pick some fruit and leaves from the trees, he gathered many of them and left them there. Then he went home. At night he could hear people chatting. Feeling curious, he went out and saw that people were born from the things he had gathered. Haypukú was very glad and he invited them to his home].



Drawing 1: Men and women originated from a leaf [Drawer: Kezo, a twenty-two-year-old undergraduate from Umutina-Balatiponé community]

O'rebutá= origin    Barepô= man    Puwazo= leaf    urixá=  
woman    Nokuteynatono= distant    Moto= Earth

### **A second experience: supervising a coursework of a xavante undergraduate**

Muniz - who was forty-six - and all the community he came from could speak the xavante language very well. On the other side, he had more difficulty than Kezo for dealing with Portuguese in any discourse genre. Such a difference points to the characterization of Brazilian Indigenous

people: there are a few isolated communities, that up to the present time avoid contact with non-indigenous society; there are some like Muniz, who are very much immersed in their communities and also search contact with non-indigenous people and see in the access to universities, for instance, something they can benefit from; and there are many of them who have lost contact with their ancestral languages. Mainly since our most recent Constitution (1988), they have struggled to recover languages and many other cultural traits they have lost – very often brutally and violently due to the demands of the colonizers.

First, Muniz told me orally many xavante mythical narratives. He said that those narratives have never been written down. As they were long narratives and I sometimes had some difficulty concentrating and listening to all those stories, without losing the many details they had, I asked him if we could make some interviews which I would record. I then asked him to write the stories down and he did it very enthusiastically. I got impressed with the volume his writings acquired week by week, so that we were already constructing an important part of his academic work.

The fact is that when supervising students like Muniz we get in contact with a very vast world and worldview, with many different knowledges before which dominant discourses show all their failure, their insufficiency, their smallness.

I intended to go to the Muniz' xavante community at the beginning of 2020 – but it was then that the pandemic COVID-19 started, which made the fieldwork impossible. One of the narratives he told me called my attention: in it there was an indigenous character who caught lizards and ate them raw. At that ancient time, people did not know fire yet, so they used to eat raw meat. Later, when making bibliographical research on other Brazilian indigenous narratives, I could find other myths also telling similar stories, and I chose one of them for the adaptive work related to the translation and adaptation of the mythical narrative into a digital game.

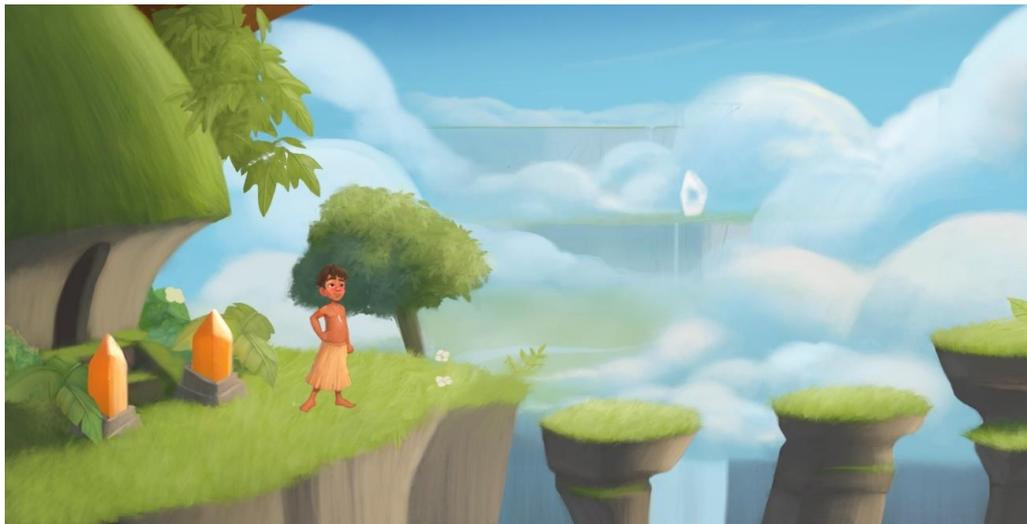
### **Constructing the game founded on a bororo narrative**

The bororo indigenous people currently hold six Indigenous Lands (TIs) demarcated in the State of Mato Grosso/MT, in a discontinuous territory that corresponds to an area 300 times smaller than their traditional territory, which used to reach Bolivia, part of the state of Goiás and Mato Grosso do Sul/MS. In the 1970s, the Bororo's high level of dissatisfaction gave rise to a movement to recover their traditional lands and improve health and education services.

The game's script was developed based mainly on the M1 bororo myth: "the xibae and iari", "the macaws and their nest", which can be found

on pages 57 to 59 of the volume “Mythological 1: The raw and the cooked”, by the French anthropologist Claude Lévi-Strauss, who developed research in Brazil in the thirties of the 20th century. This mythical narrative deals with the revenge undertaken by the father of a young indigenous man, who was about eleven years old and was about to participate in an initiation ritual. The father makes the young man go through several challenges until he drops him on the top of a slope where he could have been subjected to death, either by starvation or being attacked by wild animals - but the young man overcomes all challenges and manages to return to his homeland.

In his study, the French anthropologist tries to demonstrate that this myth, which he calls a “reference myth”, is part of a group of myths that explain the origin of the fire and cooking among indigenous peoples – as is the case of M7 “Kayapó-Gorotire: the origin of fire”, which appears on pages 91 and 92 of the same book. It is for this reason that, since as a screenwriter I was based, in principle, on M1, I added elements present in M7, thus transforming the initial narrative into a more complex narrative, which involves the conquest of fire by indigenous peoples.



Drawing 2: The game’s home screen shows one of the challenges that the bororo youngster Jeriguigui will have to face.

## CONCLUSION

The research project I mention here (in the years 2020-2022) included four phases: 1) the first phase of bibliographical research including the choice of the bororo narrative; 2) a second phase that implied the translation and adaptation of the indigenous narrative into a script with rhymed dialogues; 3) a third phase with the contract with a company

specializing in games; 4) a fourth phase that included participatory research with teachers and children of Elementary Schools.

In what concerns this last phase, partial research data point to the facts that:

1. Even children from popular neighbourhoods are already familiar with playing games. They are still not very used to using it for educational purposes that require greater attention to the dialogues.
2. Particularly, the post-COVID-19 pandemic reality presents heterogeneity in the classroom concerning children's mastery of reading and writing, a fact that points to the demand for methodologies that contribute to greater involvement of attention and cognition to enhance agile and rapid advances.
3. The field research brought to light an unforeseen result. In addition to possible gains in terms of teaching and learning for young children, the presence of the game in schools also has the potential to leverage public policies aimed at the increasing implementation of technology in schools and WiFi access via broadband. This fact proves that we do not need to wait for the conditions to be in place for the research and proposition of the construction of digital artefacts. Paradoxically, research itself and the existence of the digital artefacts have the potential to create the conditions for its implementation.

The research data generated also contributes to attributing legitimacy to the research methodology that has been used, of a participatory and collaborative nature. It points to the fact that it is not enough to think and propose artefacts with pedagogical purposes, whether digital or not, without closely monitoring, in dialogue with teachers and managers, the form of its implementation, in distance and in-service teacher training courses. In addition, it is in the course of participatory and collaborative research that transformations are leveraged within schools and in education departments.

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