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Empowering Bilingual ELLs in Social Studies: Translanguaging and Culturally Relevant Pedagogy in Action

By Yu Ren Dong

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Abstract- This study uses the qualitative case study method to examine how an urban 9th-grade Spanish bilingual global history teacher's implementation of culturally relevant and translanguaging pedagogies to teach social studies to his secondary bilingual ELLs (English Language Learners). The results show that the bilingual social studies teacher's in-depth understanding of the students' home language and culture, as well as their previous literacy education experiences, is key to motivating, engaging, and sustaining the students' learning of social studies. Equally important is the teacher's willingness to utilize the students' culturally familiar knowledge and multilingual and multimodal resources to create translanguaging opportunities that advance their social studies learning. The findings argue for training social studies teachers to use culturally relevant and translanguaging pedagogies in social studies instruction to bilingual ELLs.

Keywords: *Translanguaging: An instructional approach that the teacher draws on their students' full language repertoire and uses all languages for subject matter instruction.*

Culturally Relevant Pedagogy (CRP): An educational approach that recognizes and capitalizes students' cultural backgrounds and knowledge to make learning relevant and effective.

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I. Introduction

Increasingly, students in today's secondary social studies classrooms in America are bilingual English language learners (ELLs), a rapidly growing student population in the US public schools (National Center for Education Statistics, 2024). In New York City, where the article writer has worked, about 50% of the public-school students speak a language other than English at home, and one in every five secondary students is a bilingual ELL (New York City Department of Education: ELL demographics, 2023-2024).

Those students receive ESL instruction to learn English, while receiving bilingual content instruction to acquire subject matter content. Every day in the subject matter class, these students encounter language barriers, dense subject matter content, and academic language use, as well as unfamiliarity with cultural references and background knowledge, which often leads to a significant achievement gap in academic performance when compared to their English-proficient peers (Beck, 2008). In recent years, the need for bilingual ELLs to achieve graduation standards has become more pressing in New York City public schools. A recent count (NYC public schools: New York State Report Card 2023-2024) showed an academic achievement gap in Regents' exams in global history and US history and government, required New York State standardized tests for high school graduation, comparing English-proficient students with ELLs (see table 1).

Table 1: New York City Public School Students Graduating Passing Rate in Social Studies (2023-2024)

Regents' exams	English Proficient Students	English Language Leaners
Global history passing rate	75%	45%
US history and government passing rate	73%	45%

As shown in Table 1, ELLs were lagged behind of their English proficient peers in Regents' global history and US history and government exams in the 2023-2024 school year.

While many bilingual social studies teachers strive to tailor their instruction to their bilingual ELLs' levels and needs, and recent research literature has shown tremendous potential for incorporating the culturally relevant pedagogy and translanguaging pedagogies into social studies instruction, still, limited research has focused on what a social studies teacher can do to use the culturally relevant pedagogy and translanguaging teaching methods and techniques to teach bilingual ELLs. Therefore, there is an urgent need to research effective teaching methods and techniques that capitalize on ELLs' prior educational, cultural, and literacy backgrounds as well as their native language to teach social studies.

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As a secondary bilingual education program director for many years, the article writer has taught bilingual education courses to certified social studies teachers in grades 7-12, helping them earn their bilingual licenses in various languages as an extension added to their subject matter certifications. The program contains 15 credits or five courses, covering principles and teaching methods and techniques of working with bilingual students who are ELLs in different subjects, such as English language arts, mathematics, science, and social studies.

Based on the practical needs and research findings, this article aims to investigate how bilingual ELLs' native language, culture, and literacy learning experiences influence their social studies learning, and what a bilingual social studies teacher can do to promote social studies and biliteracy skills learning for this group of students. Specifically, based on the research results, this article is going to demonstrate how a social studies teacher can 1) identify those students' cultural, educational backgrounds; 2) plan a social studies lesson using culturally relevant and translanguaging objectives by using student native linguistic and cultural assets; and 3) promote culturally relevant social studies instruction and critical thinking skills.

II. Literature Review

a) *Culturally Relevant Pedagogy in Bilingual Social Studies Instruction*

Many secondary bilingual ELLs come to US schools with grade-level equivalent social studies content knowledge and literacy skills in their native languages gained from schools back in their home countries. Research has shown that those students do have background knowledge, prior schooling, and perspectives shaped by their previous educational and cultural experiences about history even though they may be unfamiliar with the names of the US presidents, geographic locations, US historical events, social studies readings, and language use (Choi, 2013; Dong, 2017, 2021, 2023; Jaffee, 2021; Ramirez & Jaffe, 2016).

Working with this group of students, culturally relevant pedagogy has an important role to play in recognizing, embracing students' native cultural backgrounds, prior schooling and perspectives, and integrating them into the social studies instruction (Dong, 2017; Jaffee, 2016a, 2016b, 2021; Ladson-Billings, 1995a, 1995b; Moll et al., 1992). Ladson-Billings' culturally relevant pedagogy framework (1995a, 1995b) called for all teachers to engage students from non-mainstream cultures in actively connecting, exploring, and reflecting on the concepts and topics under study to promote their participation and learning and develop their critical thinking skills. In bilingual social studies instruction, culturally relevant pedagogy draws on students' native culture and prior schooling during the instruction, and motivates them to use what they know to learn new knowledge and become active participants in the learning process.

Using a qualitative case study method, Jaffee (2016) studied a high school social studies teacher's global history teaching to bilingual ELLs in an urban newcomer high school in northeast. Findings from classroom observations and the teacher's reflections showed positive impacts of culturally relevant pedagogy on connecting bilingual ELLs' native cultures to social studies content, thus developing students' critical thinking of the concepts such as citizenship, identity, etc.

Working with bilingual ELLs, a cross-cultural lens can be used along with other history teaching methods to analyze historical, social, and cultural issues in order to engage those students in relating, exploring, and questioning the topic under study (Beck, 2008; Choi, 2013; Cruz & Thornton, 2009; Deroo, et al., 2024; Dong, 2017; Jaffee, 2016; Keefer, et al., 2024; Ramirez & Jaffee, 2016; Salinas, et al., 2006; Schleppegrell, et al, 2024). A meaningful way to do it in particular is through comparing and contrasting different cultural perspectives and practices. In so doing, students not only have access to the social studies content but also are challenged to think deeply about the issue under study, power structures, and why different cultures view the topics differently. Dong (2017) studied effective high school social studies teachers' use of cross-cultural comparisons to examine various texts depicting different views on the Korean War from culturally varied perspectives. The social studies teacher engaged his bilingual ELLs from Korea and China to articulate their views in comparison of those texts from the US, Korea, and China. The critical discussion afterwards revealed cultural biases in history writing and promoted critical inquiry among all his students.

b) *Translanguaging Pedagogy in Social Studies Instruction*

Translanguaging is what bilingual ELLs do daily in their social and family lives when they switch between two or more languages, using them to communicate with fellow bilinguals. However, for many years in New York State public schools, bilingual education programs use either the TBE (Transitional Bilingual Education) model, whose goal is to use students' native language to learn English first in order to facilitate a complete transition to an English-only instruction in the end of the school year or the DL (Dual Language Program) model where bilingual language teaching rotates language instruction by days of the week or time of the day (New York State Education Department: Program options, 2021). Those models are not efficient or effective in supporting bilingual ELLs for learning both languages and subject matter knowledge, as they view bilingual

language learning as a separate endeavor, learning one language at a time, and students learn each language in isolation or using arbitrary breakdowns. In doing so, bilingual ELLs are not provided with ample opportunities in the classroom to utilize both languages they know simultaneously to learn complex subject matter knowledge and develop bilingual and biliteracy skills (Collins & Cioe-Pena, 2016; Dong, 2021, 2023; Garcia, et al., 2023; Garcia, 2024; Hornberger & Link, 2012; Lang, 2019; Ramirez & Salinas, 2021; Rodriguez, 2024).

Translanguaging pedagogy aims at transferring students' bilingual language skills from family and social communication to academic learning, where teachers selectively and intentionally use bilingual students' two or more languages to teach how to communicate, learn, and think in a subject matter (Garcia, 2024; Garcia et al., 2023; Garcia & Schleppegrell, 2021; Garcia & Kleyn, 2016; Hornberger & Link, 2012; Schlepperell et al. 2025). In social studies instruction, for example, translanguaging pedagogy calls for the social studies teacher to develop a translanguaging stance that values bilingual ELLs' full linguistic repertoire and use it as a valuable resource and asset to promote social studies and biliteracy learning.

Garcia and Kleyn (2016) proposed key ingredients for effective translanguaging pedagogy. First, the teacher must develop a translanguaging stance, a belief in their bilingual ELLs' multilingual assets and embracing their full linguistic repertoire in classroom instruction. Second, a translanguaging teacher must design their lessons with translanguaging objectives, space, materials, and activities in mind. Third, a translanguaging teacher must be willing to make spontaneous translanguaging shifts during the instruction based on their students' reactions to the teaching and needs to promote content and biliteracy learning (pp. 20-24).

Recent research (Collins & Cioe-Pena, 2016; Garcia & Kleyn, 2016; Keefer et al., 2024; Lang, 2019; Ramirez & Salinas, 2021; Rodriguez et al., 2017) has shown that bilingual social studies teachers are essential in implementing translanguaging pedagogy through classroom discussions, readings and videos, and writing assignments. When students have access to social studies content in their native language and draw on what they have learned back home, they are capable of making meaningful connections to the reading and concepts and articulating their understanding and perspectives in social studies.

One study conducted by Ramirez and Salinas (2021) investigated a high school social studies teacher's creation of translanguaging space and intentionality in teaching civic education to her Spanish bilingual ELLs in Arizona. Through examining classroom observations, teacher interviews, and artifacts, the researchers found that translanguaging, when used intentionally, fostered students' engagement in class-room discussions and writing and expanded their understanding of concepts such as identity, membership, and belonging. The researchers argued for the teacher's use of their students' full linguistic repertoire when teaching bilingual ELLs for both social studies and bilingual language learning.

Despite previous research findings on the benefits of using culturally relevant pedagogy or translanguaging approaches in social studies teaching, the gap of scholarship exists for researchers to explore the implications when two approaches are used together. Dealing with content rich, culture-bound, and language complex subject like social studies, we need to study how a social studies teacher uses both approaches to teach social studies to bilingual ELLs. This study aims to bridge that gap by examining how the integration of culturally relevant pedagogy and translanguaging can create more equitable, inclusive, and empowering learning environments for bilingual ELLs. By synthesizing these approaches, this research seeks to offer practical strategies and theoretical insights for educators to use to connect to their bilingual ELLs meaningfully and critically when teaching social studies.

This study focused on Sam (fictitious name), a Spanish bilingual global history teacher, using culturally relevant and translanguaging pedagogies to teach social studies in his 9th-grade Spanish-English bilingual class. Research questions were:

1) How did Sam tap into his students' prior schooling and native culture as well as bilingual language and literacy skills to teach social studies?
2) What did Sam do to promote history learning and biliteracy skills in the class discussion through cultural comparisons and translanguaging?

c) Research Contexts

The researcher used a qualitative case study design, involving an investigation of a social studies teacher in a real-life teaching context. Case study design enables a contextualized and detailed examination of complex issues in teaching and learning within a bilingual social studies class (Yin, 2003, p. 2). The study took place in a multilingual and multicultural school in New York City. At the time of the study, the school had over 2,000 students, with two-thirds of them being Hispanic and Latino/a Americans. More than twenty-three percent, or 475 of its students, were bilingual ELLs, being served by bilingual subject matter teachers in content-specific classes and ESL language teachers in ESL language classes.

Sam, the social studies teacher, a Latino-American in his late twenties, held a New York State social studies teaching license for grades 7-12. The researcher selected Sam using the criteria of 1) his passion and success in bilingual social studies teaching, 2) having three years of high school social

studies teaching experiences, and 3) having native-Spanish language skills and rich Latino cultural knowledge. While at the time of the study, Sam taught five social studies classes during the semester. Some of them were regular social studies classes for English proficient students, while others were Spanish bilingual social studies classes. Students in Sam's 9th-grade social studies class for this study shared native language and culture among themselves and between students and the teacher. The class had 32 students, and the majority of them came from the Dominican Republic, being native Spanish speakers, which reduced the potential confounding factors.

Following the prescription by his school, Sam taught his bilingual social studies class using the Transitional Bilingual Education model (TBE) (New York State Education Department: Program options, 2021). Under this model, typically at the beginning of their social studies learning, students receive the majority of social studies lessons in their native language. Progressively, the instructional language was transitioned into English only, reducing the teacher's use of the students' native language in order to develop their English proficiency at the end of the school year.

After three years of teaching, Sam enrolled in the bilingual education program at a local college to work toward his bilingual education license. Through the coursework, Sam gained a deeper understanding and appreciation for what it meant to be bilingual and how to teach social studies using culturally relevant and translanguaging pedagogies. Sam delved eagerly into those language, literacy, and cultural issues related to bilingual social studies education. He was enthusiastic to design and implement the bilingual teaching methods and techniques into his daily instruction. Reflecting on his bilingual social studies instruction, Sam started questioning this model and articulating his view toward bilingual education as follows:

> Effective bilingual instruction is when my students use their two languages side by side, as shown in the video clip we just watched. I enjoyed watching how the teacher in the video explained the types of rocks to her students using both English and Spanish, and asked them to create a vocabulary chart in both Spanish and English to help them grasp complex scientific concepts. This is how I learned social studies concepts, as I had a good foundation in history and Spanish. Using the two languages simultaneously deepened my understanding and accelerated my learning.

d) Data Collection and Analysis

Data sources for the study included two-week long global history classroom discussion observations, teacher lesson plans and written reflections, student written work. Also, included in the data were the Sam's study of the Dominican Republic culture and education system through reading research articles and doing three interviews with his students and fellow teachers on cultural values and traditions of the education system in the Dominican Republic and students' social studies learning histories. Data gathered were then examined and coded based on student responses using constant comparison between data sources and inductive analysis (Strauss & Corbin, 1994). Salient themes emerged were 1) making connections between cultures and social studies 2) using native language and cultural background to make meaning of the social studies content and language, and 3) engaging in cultural/societal issue discussions.

e) Results

This study investigated 1) How the teacher tapped into his students' prior schooling and native culture as well as bilingual language and literacy skills to teach global history and 2) what the teacher did to promote history learning and biliteracy skills in the class discussion through translanguaging. In the following, the results are organized following those three major themes. They are: 1) connecting students' cultures to social studies 2) student engagement in cultural/societal issue discussions and 3) students' using cross-cultural and translanguaging to make meaning of the social studies content and language.

f) Connecting Students' Cultures to Social Studies

Sam's understanding of the cultural backgrounds of his students began with his personal belief in bilingual and biliteracy teaching and learning, and from his own journey from the Dominican Republic to America. Sam reflected on his journey as follows:

> I became bilingual when I moved to the United States six years ago from the Dominican Republic (DR). First, I registered for English classes at a local community College. I spent a year and a half studying English before attending College to become a teacher. I am fluent in both languages (English and Spanish). Spanish is my stronger language, but I can easily navigate both languages.
>
> I teach Global History I and II to Spanish-bilingual ELLs in grade 9. Most of my students are newcomer ELLs, ranging from a few months to two years in the United States and their English language proficiency levels range from the beginning to intermediate. Most of them have high literacy skills in Spanish, their native language. Based on my personal language and social studies learning history, I am a firm believer of using their native cultural and literacy skills to teach social studies because that was how it worked for me.

As the majority of his students came from the Dominican Republic as well, Sam established a strong bond with his students early on in the semester. This bond also fueled Sam's desire to help students like him succeed academically and culturally. As Sam progressed in his graduate training in bilingual education, he had an opportunity to conduct a cross-cultural literacy study for one of his bilingual education classes. The study was twofold. First, the bilingual teachers read two or three scholarly readings about the

education and culture in the country under study. Second, they interviewed three cultural insiders about literacy education in the Dominican Republic. For this project, Sam read about scholarly articles (Cox, et al., 2015; Foucault & Schneider, 2009; Herrer, 2007) about the Dominican Republic cultural and education system, social studies education, teaching styles, etc. He also conducted three interviews with his students and fellow Spanish bilingual teachers who had had schooling up to junior high school in the Dominican Republic. One question that Sam asked was about the students' memorable learning experiences back in the Dominican Republic. One student reported:

> One memorable learning I remembered back in the Dominican Republic was that my social studies teacher assigned us to interview people who experienced a specific period in Dominican history. We all went to interview this lady, who was 85 years old at the time, in our community after class. The teacher also came with us. We were learning about Joaquin Balaguer, a Dominican President in the 60s and 70s. Talking with her made history come alive. Even today, I still remember it. I remember my teacher telling us afterwards that even though Balaguer and the police controlled by him killed many young people, people who lived in the countryside supported him because Balaguer invested in agriculture. I liked it because I could see two perspectives on this. Afterwards, the teacher assigned us to read a newspaper article written by a journalist criticizing Balaguer. So here was another perspective.

The cross-cultural literacy project provided Sam with an updated understanding of what his Dominican Republic students brought into his social studies class. Inspired by what he learned, Sam sent a clear message to his students to connect their cultures with social studies topics because despite language and cultural differences, there were always connections to make between learning social studies in the US and those of students' native countries. To Sam, global history presented a natural and rich opportunity to utilize culturally relevant and translanguaging pedagogies for teaching and learning. Sam reflected on his newly gained understanding of his students after completing the cross-cultural literacy study, like this:

> We tend to think the Dominican Republic's education system is very traditional in comparison to the US. However, my interviews with my students found that their parents are very close to their children's teachers and care about their students' academic success. Their parents visit the school and communicate constantly with the teachers.
>
> I was pleasantly surprised that the Dominican social studies teachers even used creative ways to teach social studies, such as interviews with the elderly on historical events, figures, and perspectives. The Dominican teachers even used chat groups through WhatsApp to communicate with students for clarification and further explanation, which shows me the potential to use those when teaching social studies.
>
> Having conducting this study and listening to my students' perspectives made me realize that connecting students' prior cultural and educational and personal experiences is a must for me as a social studies teacher to make global history relevant to them and come alive for them.

Having completed the cross-cultural literacy project and learned about the culturally relevant and translanguaging pedagogies, Sam was motivated to design his social studies lessons using the newly gained knowledge and insights. For example, Sam articulated his global history lesson plan for the unit of Greek civilization, like this:

> The topic of my lesson is about Ancient Greece, which often led students to complain about their difficulty in connecting to the topic and find it boring. In this first lesson about Greek city-states: the characteristics of Athens and Sparta, I plan to tap into students' personal, cultural experiences to make the lesson relevant to their lives. The focus question for the lesson is: What are the key characteristics of the ancient Greek city-states of Athens and Sparta?

g) Translanguaging to make Meaning of the Social Studies Content and Language

Besides welcoming students to use their previous cultural, educational, and personal experiences as a way into the new social studies topic, Sam is also a firm believer that two languages are better than one for students to learn social studies content and language. He planned his lessons with translanguaging in mind as follows:

> Given that all my students are Spanish bilinguals, I plan to create a translanguaging space by giving students the freedom to use their preferred language to participate in the discussion. I also want my students to use their own lives and cultural experiences to identify and relate to those characteristics. Two translanguaging strategies I plan to provide bilingual language, reading, and writing support and group and whole class discussions in both English and Spanish.

Guided by culturally relevant and trans-languaging pedagogies, Sam began his initial lesson on Greek civilization by directing the class's attention to a question in both English and Spanish on the board: "Would you prefer to live in a society known for being smart or known for being strong? ¿Preferirías vivir en una sociedad conocida por ser inteligente o conocida por ser fuerte?" To ensure comprehension, Sam first reviewed the key vocabulary that was associated with the question, including words like prefer, known for, and smart as the whole class. He also divided the class into groups of three to five to discuss and respond to the board question using whichever language they preferred. Sam reconvened afterwards and launched a whole-class discussion as follows:

Excerpt 1

Teacher: Would you prefer to live in a society known for being smart or known for being strong? ¿Preferirías vivir

en una sociedad conocida por ser inteligente o conocida por ser fuerte?

Juan: Yo prefiero vivir en una sociedad que es fuerte porque con mi inteligencia yo puedo crear armas en caso de una guerra" [Translation: I prefer to live in a society that is smart because with my intelligence I can make guns if a war happens].

Maria: Being strong can help you get things in life.

Teacher: Can you clarify what you mean?

Diego: Tú puedes ser inteligente pero si no eres fuerte, las personas pueden tomar ventajas sobre ti [Translation: You can be smart but if you're not strong, people can take advantage of you].

Sean: You need to have fuerza [Translation: strength] to run or fight. Otherwise, the enemy can beat you.

Teacher: What do you mean by that?

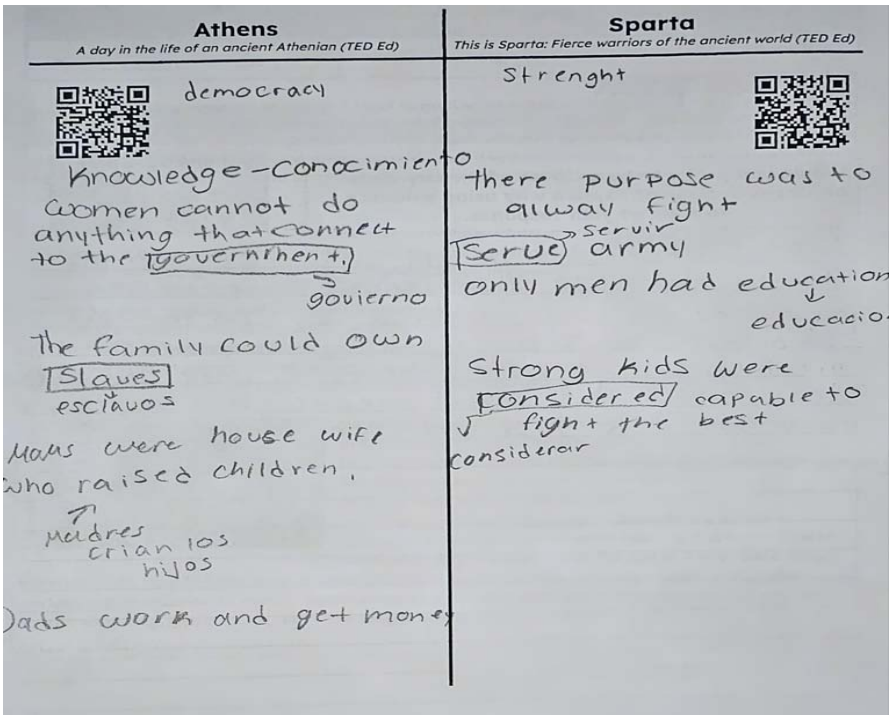
Sean: I would rather live in a society that values physical strength because I like to exercise and play sports. Also, you cannot get everything in life only with intelligence.

Elena: You know, some people look strong but are dumb.

The above classroom discussion, though not as substantive or in-depth yet, students did involve themselves by voicing their points of views, personal preferences by drawing on their lived experiences. This initial discussion, focusing more on students' engagement and inviting students to speak, showed that even students new to English, like Juan and Diego, still participated when they were given opportunities to access the subject matter through bilingual language support and group work. They were not silent participants due to their beginning English language proficiency but actively engaged. Even with the intermediate English proficient student, like Sean, Sam was happy to see his use of the Spanish word fuerza to justify his response. Research in bilingual/ESL and translanguaging instruction has argued that bilingual/ELLs are capable of thinking in their native language to explain or argue their points of views in subject matter learning (Dong, 2017; Jaffee, 2016; Ramirez & Jaffee, 2016; Salinas, et al., 2008; Salinas, et al., 2006).

An inviting atmosphere in his class by Sam's modeling translanguaging in his own speech, in his board work, providing language support, as well as assigning students to do group work to use the language with which they were comfortable got the class involved in the discussion. Throughout weeks of classroom discussions, students with a beginning level of English proficiency and those with a higher level of English proficiency all participated enthusiastically. For students like Juan and Diego, who have a beginning level of English proficiency, they used Spanish, their native language, to articulate their thoughts and views. As students progressed in their English language proficiency levels, Sam required more from them, like in Sean's case, to encourage him to translanguage by using Spanish as well.

Back to this lesson, based on the initial discussion, Sam engaged the class in reading and viewing a short excerpt about the City-States Sparta and Athens in both English and Spanish (Sam created the Spanish version of the reading). After that, Sam asked the class in their groups to fill out a bilingual T-chart to show those characteristics based on the reading and video (See Figure 1 below).



As shown in the T-chart, students used both Spanish and English to verbalize their understanding and preference for the societies based on the reading and viewing of bilingual texts and video about Athens with Sparta. The vocabulary squared was the ones that group worked on them together to comprehend using translanguaging. Next, Sam launched the second whole-class discussion as follows:

h) Engaging in Critical Understanding of Cultural/ Societal Issues

Excerpt 2

Teacher: Now, after our reading and viewing, can you relate this part of Greek history to your own experiences? Ahora, después de nuestra lectura y visualización, ¿puedes relacionar esta parte de la historia griega con tus propias experiencias?

Elena: My grandmother never went to school, and my mother married very young, so education is huge for my family, and women deserve education.

Juan: Yo prefiero vivir en Atenas, aunque si está bien malo que las mujeres eran como esclavas [I prefer to live in Athens, though it is very bad that women were treated like slaves].

Teacher: I understand. Can you say it in English?

Juan: I prefer to live in Athens, aunque es malo para las mujeres [though it is bad for women].

Teacher: How come? Keep in mind that women were poorly treated in Athens.

Diego: Cierto, pero si uno tiene un buen esposo, él le va a permitir estudiar aunque sea a escondidas [True, but if you have a good husband, he will allow you to study even if you have to do it in secret].

Gabriel: So, you are talking about machismo?

Teacher: Class, have you heard this Spanish word? What does it mean in Spanish?

Diego: Se espera que los hombres latinos sean el jefe de la familia para proveer y tomar decisiones. [Latino men are expected to be the head of the family to provide and make decisions]

Sean: In Dominican Republican culture, machismo is about how to be a man. Men should be strong physically to take care of women and their families. Women are about taking care of their family like children. We do have educated women.

Maria: I don't like machismo. We are in America now. We don't need men's permission to go to school and get educated.

Teacher: What did the reading say about the women's role in Athens in comparison to Sparta?

Elena: I now understand. In Athens, women are not allowed to attend school. What does knowledge matter if you are not even allowed to learn? I choose Sparta now.

Maria: I prefer to live in Sparta because women were treated better and had more rights.

Sam's opening question in this second round of the discussion focused on students making connections between the characteristics identified in the Athens and Sparta societies in the reading and video to their own lives. Instead of giving lectures, Sam invited students to relate the topic to what they know. That prompted Elena's response to relate it to the fact that her family values education, despite the fact that women in her family did not attend school. Even though Juan did not change his view, he did sympathize with Elena. Hearing Juan's response, all in Spanish again, Sam nudged him to use English to restate his response. Juan phrased his response in half English and half Spanish. In addition, Sam pushed further by asking the class to consider the issue from the women's perspective and promoting critical thinking of those societal issues.

Diego responded by drawing on his cultural knowledge of what a good husband was: to support the wife's education, even if it had to be done in secret. Diego's comment prompted Gabriel to mention the Spanish word maschimo. Although Sam did not plan for this point of discussion, seeing the students' interest, he did not stop the discussion; instead, he made a translanguaging shift to follow the students' train of thought, using this point to deepen student thinking and further the discussion. Sam knew that although there is no direct English translation for it, machismo is a deeply rooted concept in many Latino and Hispanic cultures whose people view it as a cultural value and expectation for males to have a strong sense of masculine pride, dominance, and superiority when compared with females. Sam's open invitation led to a back-and-forth interaction among students, allowing them to filter, question, and think critically about the topic under study. Maria and Elena concluded the discussion with their reasoning to substantiate their views and contextualize the key points articulated in the reading. Below is a sample of a student's writing on the reasoning behind choosing a city-state to live in.

English Version:

I prefer to live in the city-state of Sparta because it's a safe city-state to live. According to the document and video, "The purpose of their existence is to serve their beloved Sparta." This demonstrates that their soldiers are trained to keep Sparta safe and sound at all times. The document and video also state, "So what was Sparta doing differently than every other state was to produce such fierce soldiers." That's why Sparta would be the best city-state to live in.

Spanish Version:

Prefiero vivir en la ciudad-estado de Esparta porque es una ciudad-estado segura. Según el documento y el video, «El

propósito de su existencia es servir a su amada Esparta». Esto demuestra que sus soldados están entrenados para mantener a Esparta sana y salva en todo momento. El documento y el video también afirman: «Entonces, lo que hacía Esparta diferente a cualquier otro estado era producir soldados tan feroces. Por eso Esparta sería la mejor ciudad-estado para vivir».

The fluidity and focus of the class discussions with students by drawing on their own personal, family, and cultural experiences to justify their reasoning through translanguaging and cross-cultural connections as well as their writing to connect with the reading is noteworthy here. Making cross-cultural connections and critiques is an important part of culturally relevant pedagogy confirmed by Ladson-Billings (1995) in that "teachers allowed students to use their community circumstances as official knowledge. Their pedagogy and students' learning became a form of cultural critique" (p. 477).

Sam reflected on his semester-long teaching implication using the culturally relevant and translanguaging pedagogies as follows:

> Although the school where I work uses the Transitional Bilingual Education (TBE) model to teach social studies, I now realize that incorporating the use of two languages and students' native cultural and educational backgrounds to teach social studies makes more sense. The cross-cultural literacy study made it possible for me to be in tune with my students' native cultural and educational backgrounds and understand why the bilingual ELLs may feel overwhelmed by the demands of the social studies. Therefore, bilingual teachers must incorporate students' cultural and educational knowledge into social studies topics to make them feel welcomed and valued, and to provide them with opportunities to contribute something meaningful and develop their critical thinking skills.
>
> Additionally, translanguaging has become a significant aspect of my class. Last week, I asked my students to write down the lyrics of their favorite Spanish song and share them with the class. Afterwards, I asked them to translate their song lyrics into English. The activity motivated them, and the class had a lot of fun doing it. Some even compared the terms in Spanish with their English counterparts and got into a debate, discussing the cultural meanings behind certain words. Now I see that I have added tools to teach social studies. They are culturally relevant and translanguaging pedagogies.

III. Discussion/Conclusion

The findings of the study on Sam's teaching practices to his 9th-grade Spanish bilingual ELLs confirm the previous research and show the transformative potential for the implementation of both culturally relevant and translanguaging pedagogies to teach social studies to enrich social studies teaching and empower bilingual ELLs' social studies learning (Choi, 2013; Dong, 2017; Jaffee, 2021; Ramirez & Jaffe, 2016). By interweaving both approaches in his instruction, Sam created a rich learning environment where his bilingual ELLs can leverage their cultural and linguistic assets to access social studies content, articulate multiple points of views, develop bilingual and biliteracy skills, and critically think about social and cultural issues.

However, the small sample size and short-term class observations limit the study. Due to the qualitative case study on one teacher's social studies instruction, the study is not representative of a larger context. Future research should include a large sample size and a broader educational context to support a longitudinal study on the implementation of these two teaching pedagogies by social studies teachers. Also, more research needs to study how the school and teacher wrestle with and understand the tension between the social studies curriculum and standards and changing student body, what they bring to the classroom, such as cultural and educational backgrounds, linguistic assets, in order to close the achievement gap between English proficient students and bilingual ELLs.

Still, what is unique and important about this study is Sam's native Spanish-speaking abilities and Latino insider cultural knowledge, his previous education in the Dominican Republic, and his updated cultural knowledge gained through his cross-cultural literacy project. All this has given him extra credibility among his students, an advantage in understanding their needs to make the challenging and seemingly remote topic of Greek civilization relevant and meaningful to them, and in incorporating their cultural and language assets into his teaching.

The teacher education program where Sam attended has also influenced Sam's educational stance, and his teaching endeavors to use culturally relevant and translanguaging pedagogies to teach social studies to bilingual ELLs. To Sam, translanguaging is more than translating isolated new words or phrases from one language to another. Sam has utilized translanguaging to provide students with multiple access points to social studies content, including bilingual language support, bilingual videos, bilingual reading, bilingual group and whole-class discussions, and bilingual writing in both English and Spanish. The multiple ways of engaging students' full language repertoire have enabled even beginners, such as Juan and Diego, to contribute to the discussion and learn by articulating their views and understanding in Spanish first, and then in a mix of Spanish and English.

In addition to multiple entry ways to teach content through translanguaging, Sam's incorporation of both culturally relevant instruction and translanguaging pedagogies simultaneously has created a co-constructive space and opportunity for his students to examine social and cultural issues critically. Although Sam did not plan or initiate the discussion about the Spanish word machismo, he quickly made a translanguaging shift to focus the discussion on it after

the student brought up the word. By integrating that word into the discussion, he guided students to draw connections between cultures, promoting more deeper understanding of the topic under study. The results of this study have shown the transformative power of translanguaging and culturally relevant pedagogies used together to channel students' existing cultural knowledge and bilingual language skills and facilitate their learning of social studies (Collins & Cioe-Pena, 2016; Dong, 2021, 2023; Garcia, et al., 2023; Garcia, 2024; Hornberger & Link, 2012; Lang, 2019; Ramirez & Salinas, 2021; Rodriguez, 2024).

This study calls for school administrators, teacher educators, and policy makers to require teachers who are bilingual to obtain bilingual education certification or get trained in developing bilingual language skills and cross-cultural knowledge when teaching bilingual ELLs. For subject matter teachers who have limited exposure to the cultures from which their students come, they must learn about their students' native cultures and previous schooling by conducting a cross-cultural literacy study, like what Sam did. In addition, non-bilingual teachers can utilize bilingual speakers in their schools and/or advanced bilingual students in their classes to help with bilingual readings and provide bilingual language support.

Bilingual ELLs bring an array of native language, cultural, and literacy experiences to the social studies classroom. By viewing what those bilingual ELLs bring to the social studies class as assets and incorporating them in their culturally relevant and translanguaging pedagogy, social studies teachers can create learning opportunities for those students to participate, make the social studies topic relevant and meaningful to them, thus promoting those students' historical thinking and social studies learning. It is only when those students are fully engaged and connected to what they know with the new social studies topic that they become active and critical learners of social studies.

Conflict of Interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References Références Referencias

1. Beck, T. A. (2008). Behind the mask: Social studies concepts and English language learners. *Social Education. 72*(4), 181-184.
2. Choi, Y. (2013). Teaching social studies for new-comer English language learners: Toward culturally relevant pedagogy. *Multicultural Perspectives. 15*(1), 12-18.
3. Collins, B. A. & Cioe-Pena, M. (2016). Declaring freedom: Translanguaging in the social studies classroom to understand complex texts. In Ofelia Garcia and Tatyana Kleyn (Eds.) *Translanguaging with multilingual students* (pp. 118-139). New York: Routledge.
4. Cox, C., Bascope, M., & Castillo, J. C. (2015). Citizenship education in Latin America: Priorities of school curricula. *UNESCO International Bureau of Education*. Issue #14.
5. Cruz, B. C., & Thornton, S. J. (2009). Social studies for English language learners: Teaching social studies that matters. *Social Education. 73*(6), 271-274.
6. Deroo, M. R., Kahn, J., & Axelrod, D. (2024). Leveraging linguistic and cultural frames for social-spatial understandings with transnational youth. In A. T. Jaffee and C. Salinas (Ed). *Teaching culturally and linguistically relevant social studies for emergent bilingual and multilingual youth*. New York: Teachers College Press. pp. 34-50.
7. Dong, Y. R. (2023). Translanguaging and culturally relevant pedagogies in teaching mathematical concepts. *Global Journal of Human-Social Science G: Linguistics & Education, 23*(10), 1-15.
8. Dong, Y. R. (2021). Using culturally and linguistic responsive and translanguaging pedagogy to teach science. *Global Journal of Human-Social Science G: Linguistics & Education, 21*(11), 1-9.
9. Dong, Y. R. (2017). Tapping into English language learners' (ELLs') prior knowledge in social studies instruction. *The Social Studies, 108*(4), 1-9.
10. Dunne, K. A., & Martell, C.C. (2013). Teaching America's past to our newest Amercans: Immigrants students and United States history. *Social Education, 77*(4), 192-195.
11. Foucault, D., & Schneider, B. H. (2009). {Parenting values and parenting stress among impoverished village and middle-class small city mothers in the Dominican Republic. *International Journal of Behavioral Development., 33*(5), 440-450.
12. Garcia, M. H. (2024). A newcomer emergent bilingual learner engaging in social studies inquiry through translanguaging. In A. T. Jaffee and C. Salinas (Ed). *Teaching culturally and linguistically relevant social studies for emergent bilingual and multilingual youth*. New York: Teachers College Press. pp. 51-71.
13. Garcia, M. H., Schleppegrell, M. J., Sobh, H., & Monte-Sano, C. (2023). The translanguaging school. *Phil Delta Kappan, 105*(2), 8-13.
14. Garica, M. H., & Schleppegrell, M. J. (2021). Culturally sustaining disciplinary literacy for bi/multilingual learners: Creating a translanguaging social studies classroom. *Journal of Adolescent & Adult Literacy, 64*(4), 449-454.
15. Garcia, M. H., Schleppegrell, M. J. (2021). Culturally sustaining disciplinary literacy for bi/multilingual learners: Creating a translanguaging social studies

classroom. *Journal of Adolescent and Adult Literacy, 64*(4), 449-454.
16. Garcia, O., & Kleyn, T. (2016). *Translanguaging with multilingual students: Learning from classroom moments*. New York, NY: Routledge Taylor & Francis Group.
17. Herrero, E. (2006). Using Dominican oral literature and discourse to support literacy learning among low-achieving students from the Dominican Republic. *International Journal of Bilingual Education and Bilingualism, 9*(2), 219-238.
18. Heurta, M. S. (2017). Transformative pedagogy: Emergent bilinguals and perspective taking. *Journal of Latinos and Education. 16*(3), 192-202.
19. Hornberger, N. H., & Link, H. (2012). Trans-languaging in today's classrooms: A biliteracy lens. *Theory into Practice, 51*(3), 239-247.
20. Jaffee, A. T. (2016a). Social studies pedagogy for Latino/a newcomer youth: Toward a theory of culturally and linguistically relevant citizenship education. *Theory and Research in Social Education, 44*(2), 147-183.
21. Jaffee, A. T. (2016b). Community, voice, and inquiry: Teaching global history for English language learners. *The Social Studies. 107*(3), 89-101.
22. Jaffee, A. T. (2021). "I want them to feel safe and to feel loved": Collaborating to teach social studies for middle level emergent bilingual students. *Research in Middle Level Education. 44*(1), 1-14.
23. Keefer, N., Young, J., Lopez, J., & Hai-Broussard, M. (2024). Leveraging economic and linguistic funds of knowledge through biliteracy strategies. *Social Education. 88*(3), 142-147.
24. Ladson-Billings, G. (1995a). Toward a theory of culturally relevant pedagogy. *American Educational Research Journal. 32*(3), 465-491.
25. Ladson-Billings, G. (1995b). But that's just good teaching! The case for culturally relevant pedagogy. *Theory into Practice, 34*(3), 159-165.
26. Lang, N. W. (2019). Teachers' translanguaging practices and "safe spaces" for adolescent newcomers: Toward alternative visions. *Bilingual Research Journal, 42*(1), 73-89.
27. Moll, L. C., Amanti, C., Neff, D., & Gonzalez, N. (1992). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. *Theory into Practice. 31*(9), 132-141.
28. National Center for Education Statistics (2024). Report on the condition of education 2024: English learners https://nces.ed.gov/pubs2024/2024144.pdf
29. New York City Department of Education (2023-2024). ELL demographics. https://infohub.nyced.org/docs/default-source/default-document-library/2023-24-ell-demographics-at-a-glance.pdf
30. NYC public schools. (2023-2024). New York State Report Card. https://data.nysed.gov/essa.php?instid=7889678368&year=2024&createreport=1&regents=1
31. New York State Education Department (2021) Program options for English language learners and multilingual learners: https://www.nysed.gov/bilingual-ed/program-options-english-language-learners-and-multilingual-learners
32. Ramirez, P. C. (2024). Co-constructing language with multilingual youth in a social studies classroom. In A. T. Jaffee and C. Salinas (Ed). *Teaching culturally and linguistically relevant social studies for emergent bilingual and multilingual youth*. New York: Teachers College Press. pp. 100-112.
33. Ramirez, P., & Salinas, C. (2021). Reimagining language space with bilingual youth in a social studies classroom. *Bilingual Research Journal, 44*(4), 409-425.
34. Ramirez, P., & Jaffee, A. T. (2016). Culturally responsive active citizenship education for newcomer students: A cross-state case study of two teachers in Arizona and New York. *International Journal of Multicultural Education. 18*(1), 45-
35. Rodriguez, F., Solsona-Puig, J., & Capdevilla-Gutierrez, C. (2017). Teaching social studies in Spanish in dual immersion middle schools: A biliterate approach to history. *Cogent Education, 4*(1), 1-12.
36. Salinas, C., Franquiz, M. E., & Freidel, M. (2008). Teaching world geography to late-arrival immigrant students: Highlighting practice and content. *The Social Studies, 99*(2), 71-76.
37. Salinas, C., Franquiz, M. E., & Guberman, S. (2006). Introducing historical thinking to second language learners: Exploring what students know and what they want to know. *The Social Studies, 97*(5), 203-207.
38. Schleppegrell, M. J., D'Angelo, R. L., Garcia, M. H., & Monte-Sano, C. (2025). Agency and register in translanguaging: Middle school bilingual learners engaging in social studies inquiry. *TESOL Quarterly, 59*(2), 818-845.
39. Schleppegrell, M. J., D'Angelo, R. L., Garcia, M. H., & Monte-Sano, C. (2024). Centering emergent bilingual learners' cultures and languages throughout social studies inquiry. In A. T. Jaffee and C. Salinas (Ed). *Teaching culturally and linguistically relevant social studies for emergent bilingual and multilingual youth*. New York: Teachers College Press. pp. 129-142.
40. Strauss, A., & Corbin, J. (1994). Grounded theory methodology: An overview. In N. K. Denzin & Y. S. Lincoln (Eds). *Handbook of qualitative research*. (pp. 273-285). Thousand Oaks, CA: Sage.
41. Yin, R. (2003). *Case study research: Design and methods*. Thousand Oaks, CA: Sage Publications, Inc.

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Digital *Scrapbooking* as a Pedagogical Tool: Possibilities for English Language Classes

By Dr. Themis Rond O Barbosa da Costa Silva

Resumo- A emergência da digitalidade favorece constantes mudanças nas formas de organização e disseminação do conhecimento. Nesse contexto, a linguagem escrita passa a coexistir com as outras formas de representação e ocorre o rompimento com estéticas tradicionais, formais e lineares. Neste sentido, o objetivo deste trabalho foi explorar as características do *scrapbook* digital e analisar a possibilidade de seu uso como ferramenta pedagógica para construção de conhecimentos significativos em língua inglesa. Para tanto, foram analisadas quatro produções de estudantes do ensino médio à luz dos estudos de multiletramentos e multimodalidade e de banco de dados como forma simbólica. A partir das análises, verificou-se que o *scrapbook* pode favorecer a organização dados e a construção de conhecimentos em aulas de língua inglesa. Em conclusão, aponta-se aqui a possibilidade de uso do *scrapbook* digital com fins pedagógicos em aulas de língua inglesa.

Palavras-chave: *scrapbook digital, banco de dados, multiletramentos, língua inglesa.*

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Strictly as per the compliance and regulations of:

Digital *Scrapbooking* as a Pedagogical Tool: Possibilities for English Language Classes

Scrapbook Digital Como Ferramenta Pedagógica: Possibilidades Para Aulas de Língua Inglesa

Dr. Themis Rond O Barbosa da Costa Silva

Resumo- **A emergência da digitalidade favorece constantes mudanças nas formas de organização e disseminação do conhecimento. Nesse contexto, a linguagem escrita passa a coexistir com as outras formas de representação e ocorre o rompimento com estéticas tradicionais, formais e lineares. Neste sentido, o objetivo deste trabalho foi explorar as características do *scrapbook* digital e analisar a possibilidade de seu uso como ferramenta pedagógica para construção de conhecimentos significativos em língua inglesa. Para tanto, foram analisadas quatro produções de estudantes do ensino médio à luz dos estudos de multiletramentos e multimodalidade e de banco de dados como forma simbólica. A partir das análises, verificou-se que o *scrapbook* pode favorecer a organização dados e a construção de conhecimentos em aulas de língua inglesa. Em conclusão, aponta-se aqui a possibilidade de uso do *scrapbook* digital com fins pedagógicos em aulas de língua inglesa.**

Palavras-chave: scrapbook digital, banco de dados, multiletramentos, língua inglesa.

I. Introdução

Os avanços tecnológicos, a globalização e as mudanças sociais reconfiguram constantemente a construção de conhecimentos e as formas de comunicação (COPE; KALANTZIS, 2000). Tendo em vista esse cenário, o grupo de Nova Londres propôs a Pedagogia dos Multiletramentos com foco em diferentes modos de representação que vão além do mero letramento centrado apenas na língua. Essa pedagogia considera modos de significação múltiplos e integrados e aponta para uma construção de sentido cada vez mais multimodal. Em outras palavras, ler textos multimodais implica atribuir significados não apenas a textos escritos, mas também a figuras, cores, vídeos e outros.

Sendo assim, busca-se, nos dias de hoje, expandir o papel do aluno para muito além de recebedor e absorvedor de conhecimento, como costumava ser visto na sala de aula tradicional no modelo de educação de massa e institucionalizada. Contexto em que aprender implicava memorizar e absorver regras, fatos e apresentar respostas decoradas, o que remete à educação bancária, debatida há muito por Paulo Freire. Entretanto, atualmente busca-se, por meio de uma aprendizagem muito mais ativa, que os alunos sejam capazes de identificar os conhecimentos que lhes são necessários e criá-los de forma autônoma ou colaborativamente (KALANTZIS; COPE, 2008).

Embasada nessa perspectiva teórica, propus, em aula de língua inglesa, a elaboração de um *scrapbook* digital a estudantes de duas turmas de segundo ano do ensino médio integrado ao ensino técnico do Instituto Federal de Mato Grosso do Sul, Campus Campo Grande. Para execução da tarefa, inspirados nas características do tradicional *scrapbook*, os estudantes poderiam utilizar fotos, textos, imagens decorativas, papéis digitais para compor o fundo e outros recursos de *design* gráfico para apresentar as atividades realizadas em suas últimas férias, empregando o tempo verbal *simple past*.

Este artigo tem dois objetivos específicos: analisar a possibilidade de uso do *scrapbook* digital como ferramenta pedagógica para construção de conhecimentos significativos em língua inglesa e verificar se ele pode ser considerado um gênero banco de dados. Para tanto, este trabalho fundamentou-se nos estudos de multiletramentos e multimodalidade (COPE; KALANTZIS, 2000; KRESS, 2003) e de banco de dados como forma simbólica (MANOVICH, 2001) para análise de quatro *scrapbooks* digitais produzidos pelos discentes na atividade acima descrita.

Este artigo divide-se em: 1) Introdução - apresenta a visão geral do tema, os objetivos e as teorias que embasam as discussões; 2) *Scrapbook* digital - discute o objeto de estudo; 3) *Scrapbook* Digital: banco de dados ou narrativa? – debate a diferença entre banco de dados e narrativa; 4) Discussões e resultados - apresenta os *scrapbooks* selecionados, análises e discussões pertinentes; 5) Considerações finais - apresenta as conclusões do trabalho e, por fim, Referências - traz compêndio das obras utilizadas.

II. Scrapbook Digital

Um *scrapbook* consiste em uma versão do tradicional álbum de fotografias. Em detalhe, seria um álbum de recordações decorado com adesivos ou

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pedaços de papéis coloridos em que há não apenas fotos, mas também pequenas lembranças de momentos especiais vividos pelas pessoas, a exemplo de bilhetes de cinema, ingressos de *shows* e embalagens de produtos consumidos em momentos especiais, além de pequenos cartões e *folderes* de lugares visitados (HIRATOMI *et al*., 2011).

A emergência da cultura digital possibilitou o surgimento de novos e a transformação de gêneros discursivos diversos. A produção do *scrapbook* em contexto digital, por exemplo, implica a perda de recursos que explorem texturas e aromas, entretanto, permite a inserção de imagens estáticas e em movimento, vídeos, áudios, dentre outros. Desse modo, pode ser considerado um objeto das novas mídias, uma coleção de itens multimidiáticos permeada por semioses variadas e possibilidades de uso ampliadas (diário, álbum de fotografia, banco de informações criativas e curiosas sobre pessoas, objetos, lugares etc.).

Associo essas mudanças às discussões de Kress (2003) a respeito de multimodalidade e de gêneros discursivos híbridos e hipermidiáticos apresentadas por Santaella (2014), embasada nos estudos desenvolvidos por Brait (2006) e Machado (2005). Kress (2003) argumenta que, na mídia de hoje, existem formas híbridas em que a linguagem escrita perde a primazia e passa a coexistir com as outras formas de representação. Nessa mesma linha, Santaella (2014) defende que esses gêneros rompem com a concepção de discursividade estritamente verbal e concebem a discursividade como necessariamente multimidiática.

A multimídia, nos termos de Santaella (2014, p. 212), "consiste na hibridação, quer dizer, na mistura de linguagens, de processos sígnicos, códigos e mídias". A autora acrescenta que o mundo digital introduziu mudanças substanciais na constituição das linguagens humanas e que

> O ciberespaço se apropria e mistura, sem nenhum limite, todas as linguagens pré-existentes: a narrativa textual, a enciclopédia, os quadrinhos, os desenhos animados, o teatro, o filme, a dança, a arquitetura, o design urbano etc. Nessa malha híbrida de linguagens, nasce algo novo que, sem perder o vínculo com o passado, emerge com uma identidade própria: a multimídia (...).

Segundo a autora, a multimídia é responsável pelo conceito de gêneros discursivos híbridos, que ela propõe a partir de uma concepção de discursividade como necessariamente multimidiática. Nessa mesma linha, Marcuschi (2002, p. 21) defende que os gêneros que emergiram no contexto das novas mídias "criam formas comunicativas próprias com um certo hibridismo que desafia as relações entre oralidade e escrita e inviabiliza de forma definitiva a velha divisão dicotômica ainda presente em muitos manuais de ensino de língua". Segundo esse autor, nesses gêneros é possível a integração de vários tipos de semioses "signos verbais, sons, imagens e formas em movimento.".

Sendo assim, os estudantes são constantemente expostos a textos multimidiáticos digitais, projetados de modo cada vez mais multimodal. Por esse motivo, Kalantzis e Cope (2012, p. 11) indicam que professores façam uso de "espaços de aprendizagem que não são apenas planos de aula, livros, cadernos de exercícios, mas são todas essas coisas com um olhar e sentir mais semelhante a redes sociais e *sites* de *blogs", a fim de contemplar em suas aulas questões que vão ao encontro das* variadas necessidades de aprendizagem que surgem em razão da multimodalidade.

A multimodalidade é conceituada por Kress (2003) como as diferentes formas de expressar e formatar mensagens por meio de complexas combinações entre mídias (um livro, uma tela), modos (fala, escrita, imagem, música) e recursos semióticos (fontes, entonação, cores). Segundo o autor, o contexto e as questões socioculturais influenciam diretamente a construção de sentidos a partir dessas mídias, modos e recursos semióticos.

Kress (2003) exemplifica as mudanças nas formas de representação e disseminação apontando as diferenças entre a escrita na página de um livro e as imagens na tela de um computador. A leitura do texto impresso, segundo o autor, segue uma sequência pré-fixada que aponta para uma leitura linear, de cima para baixo e da esquerda para a direita seguindo as linhas. Em contrapartida, ao ler uma página da *internet*, o leitor pode traçar seu próprio caminho de leitura e o *designer* da página não é considerado um autor, mas um fornecedor de materiais que são escolhidos visando a corresponder aos interesses desse leitor (KRESS, 2003). Sendo assim, o autor argumenta em favor da suplementação da leitura e escrita tradicionais com essas representações multimodais típicas das novas mídias digitais.

As demandas da digitalidade apontam para a necessidade de os estudantes aprenderem a aprender de novas formas (KALANTZIS; COPE, 2012). Nesse sentido, a escolha pelo uso do *scrapbook* digital, em vez da aplicação de uma lista de exercícios ou atividade afim, se justifica pela possibilidade utilização de recursos digitais e aplicação de conteúdo gramatical em perspectiva contextualizada e significativa, já que a proposta sugeria a redação de pequenos blocos de texto com informações sobre atividades desenvolvidas pelos próprios estudantes. Em outras palavras, o que se buscou, por meio da atividade apresentada neste trabalho, foi o rompimento com uma perspectiva de educação reprodutiva (MORIN, 2000) e com um modelo que se limita à transmissão e impede a emancipação intelectual (RANCIÈRE, 2007), por se reconhecer a possibilidade de novas formas de construir sentidos em um mundo cada vez mais digital.

Morin (2000) argumenta a favor de uma epistemologia que possibilite o desenvolvimento de uma mente criativa. Nessa mesma direção, Lankshear e Knobel (2003) defendem que o contexto digital aponta para o que denominam *epistemologia de desempenho* e que definem como saber como proceder na ausência de modelos e exemplos. Desse modo, a proposta de elaboração do *scrapbook* digital, leva em conta a importância de os alunos desempenharem papel ativo na construção de seus conhecimentos (FREIRE; 1997), conforme discutido por Barbosa-Silva (2015, p. 83) a partir do conceito de educação transformativa proposto por Kalantzis e Cope (2012):

> Na educação transformativa, ocorre uma mudança no equilíbrio de agências nas relações de aprendizagem. Nessa perspectiva, o aluno é incentivado a construir seu próprio conhecimento em um ambiente de aprendizagem propício a trabalhar com outras pessoas (colegas, pais e membros da comunidade) em relações horizontais de construção de conhecimento.

Por meio dessas relações horizontais, é possível que o estudante construa seu próprio conhecimento e negocie diferenças locais e globais, estendendo a amplitude e o alcance da sua educação para além das paredes da sala de aula tradicional. Os Multiletramentos, segundo os autores, ultrapassam os limites das abordagens tradicionais ao proporem a negociação de diferenças culturais e linguísticas como uma questão central para a vida profissional, cívica e privada dos estudantes.

Levando em conta a tradição curricular brasileira, Rojo e Barbosa (2015) argumentam que essas e outras dimensões da vida, a exemplo do campo das artes (segundo elas não contemplado nas teorizações dos estudiosos dos Multiletramentos), podem se articular em torno da acepção de esfera de circulação de discursos proposta por Bakhtin. Pois "possibilita uma contextualização sócio-histórica dos gêneros e práticas de linguagem que permite não só um tratamento teórico-metodológico no estudo dos gêneros, mas também sua didatização na/pela escola" (ROJO; BARBOSA, 2012, p. 133). Em consonância com as discussões de Rojo e Barbosa (2012), o que se buscou com a proposição dos *scrapbooks* digitais como ferramenta pedagógica foi ampliar as possibilidades de os estudantes produzirem conhecimentos a partir de seus interesses de aprendizagem.

III. Srapbook Digital: Banco de Dados ou Narrativa?

As novas mídias favorecem o surgimento de outras formas de expressão, dentre as quais podemos citar o banco de dados. Introduzido na era digital, o banco de dados é análogo ao romance e ao cinema que, segundo Manovich (2001), privilegiaram a narrativa como uma forma-chave na era moderna. O autor salienta, entretanto, que objetos das novas mídias se distanciam das características de uma narrativa, a exemplo da sucessão cronológica e do sequenciamento de fatos correlatos. Em vez disso, constituem-se como "coleções de itens individuais, em que cada item possui a mesma significação de qualquer outro." (ibid., p. 1).

Importante ressaltar que a definição de banco de dados empregada pelo autor não corresponde ao conceito utilizado na ciência da computação. Manovich (2001) utiliza a expressão banco de dados como uma forma cultural que é favorecida por trabalhos multimídia que trazem conteúdo cultural. Em outras palavras, "ao invés de uma narrativa biográfica, somos apresentados a uma coleção de imagens, sons, videoclipes e/ou textos, que podem ser navegados de formas variadas." (ibid., p. 3).

São essas características do banco de dados salientadas pelo autor que possibilitam que ele seja acessado de formas diversas, rompendo assim com a trajetória única e contínua tradicionalmente apontada pela narrativa. Um exemplo bastante representativo de um gênero que fornece uma interface a um banco de dados é uma página na *Web*, composta por dados distintos (imagens, blocos de textos, *links* etc) permite ao usuário escolher somente um elemento numa coleção de opções. Os *websites* nunca precisam estar completos, *links* e outros elementos podem ser adicionados a eles em qualquer ponto de uma lista e a qualquer tempo, o que contribui para a lógica anti-narrativa da *Web*, pois, se novos elementos são acrescentados ao longo do tempo, temos como resultado uma coleção em vez de uma história.

Considerando que um dos objetivos definidos neste trabalho foi verificar se os *scrapbooks* digitais produzidos pelos estudantes podem ser considerados um gênero banco de dados, na próxima seção serão apresentadas análises com esse fim.

IV. Discussões e Resultados

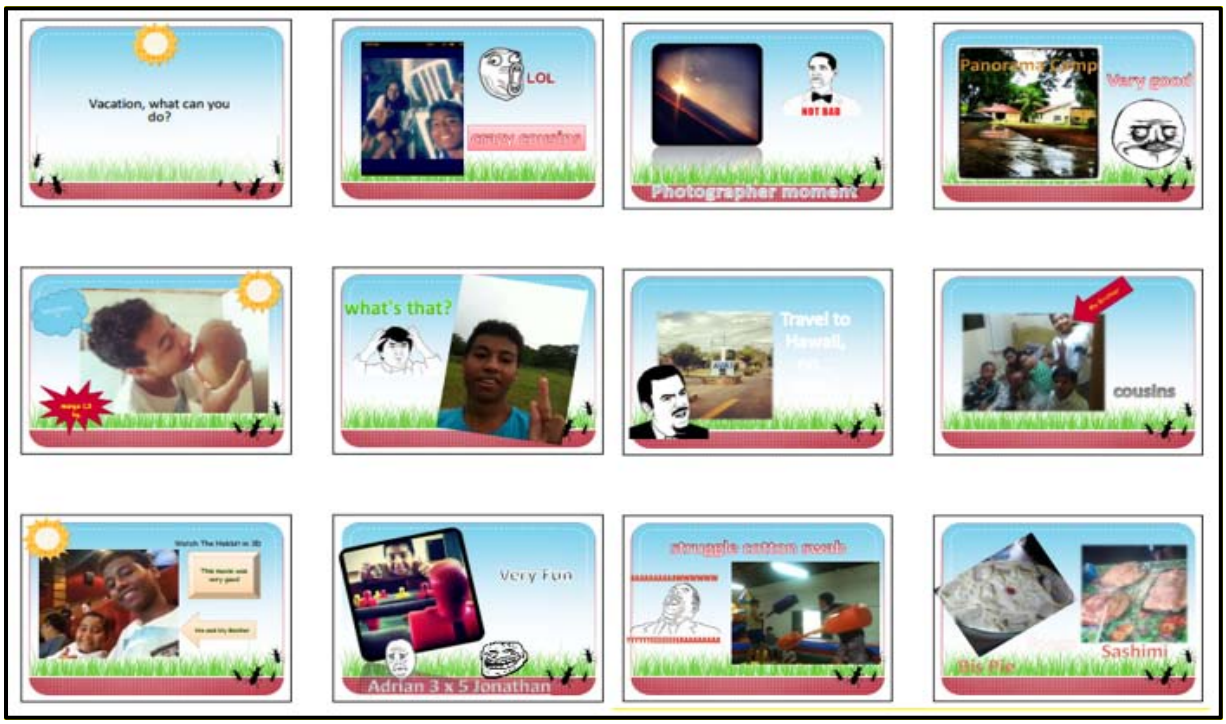
As produções que serão analisadas nesta seção tiveram como objetivo o uso contextualizado e significativo da língua inglesa. Trata-se de uma perspectiva que visa ao distanciamento de epistemologias que enfatizam o conhecimento compartimentado e fragmentado (MORIN, 2000). Propostas nessa linha resultam em trabalhos não padronizados e que refletem a subjetividade de seus autores, conforme se pode observar nos *scrapbooks* aqui discutidos.

Os quatro *scrapbooks* digitais apresentados a seguir foram selecionados de um total de 62[1] (sessenta

[1] Clique aqui para visualizar os trabalhos.

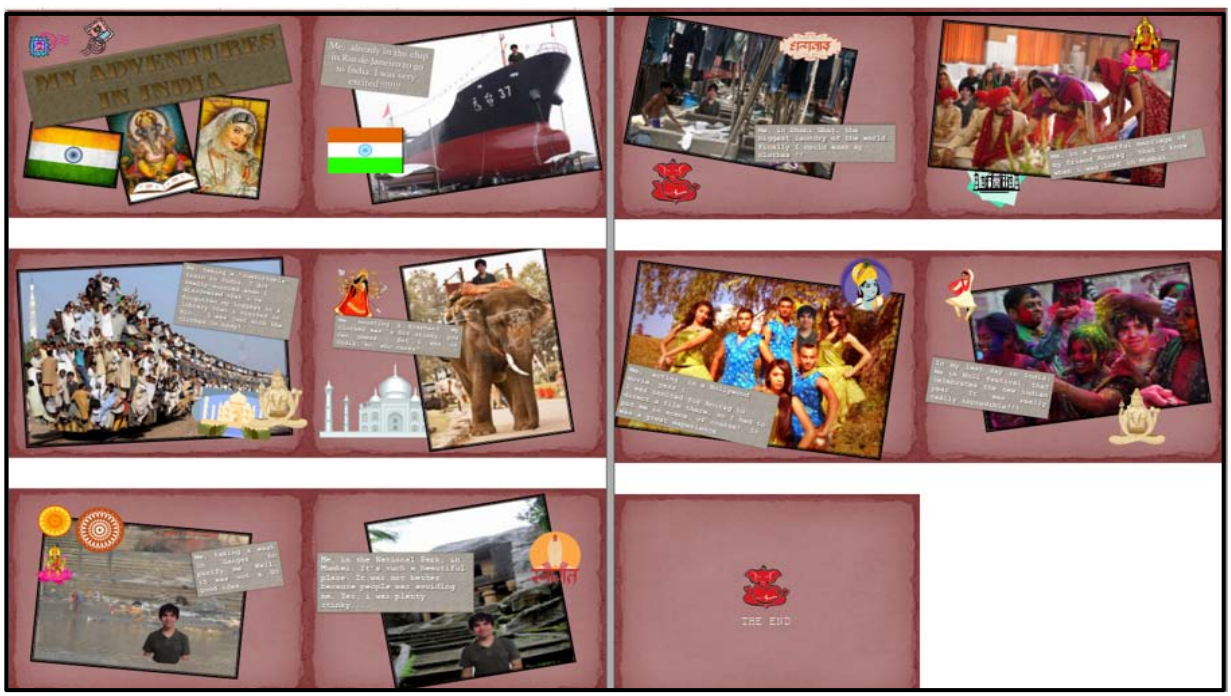
e dois) produzidos por duas turmas de estudantes do ensino médio técnico integrado, conforme mencionado anteriormente neste trabalho. A justificativa para a escolha dessas produções se deve ao fato de apresentarem características que, de modo geral, as diferenciam das demais. Suas distinções serão descritas abaixo.

Scrapbook digital 1 (SD 1)



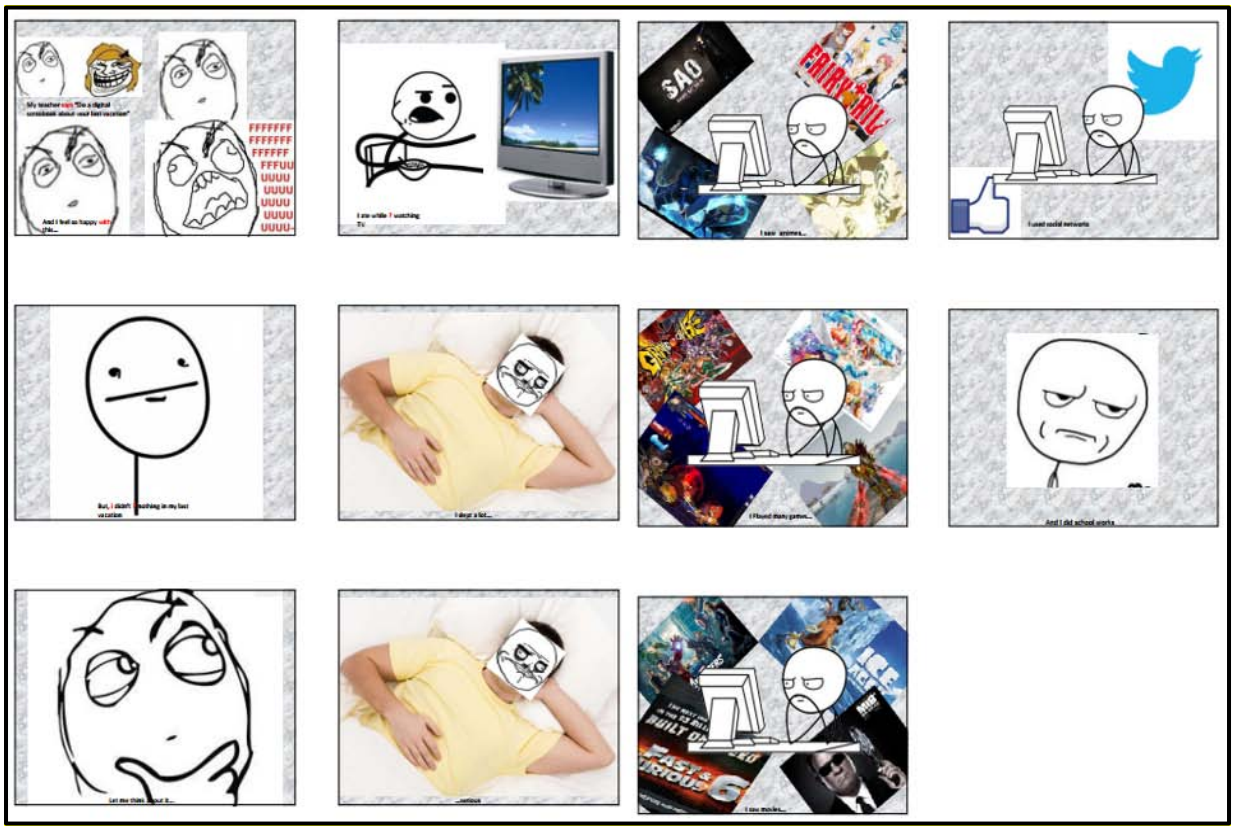
No SD 1, o autor utilizou fotos suas, de sua família, de comidas e de lugares para apresentar as atividades que realizou durante as férias. Suas impressões e sentimentos a respeito dos momentos retratados foram expressos por meio do uso de memes, que também contribuíram para o efeito de comicidade presente no trabalho.

Scrapbook digital 2 (SD 2)



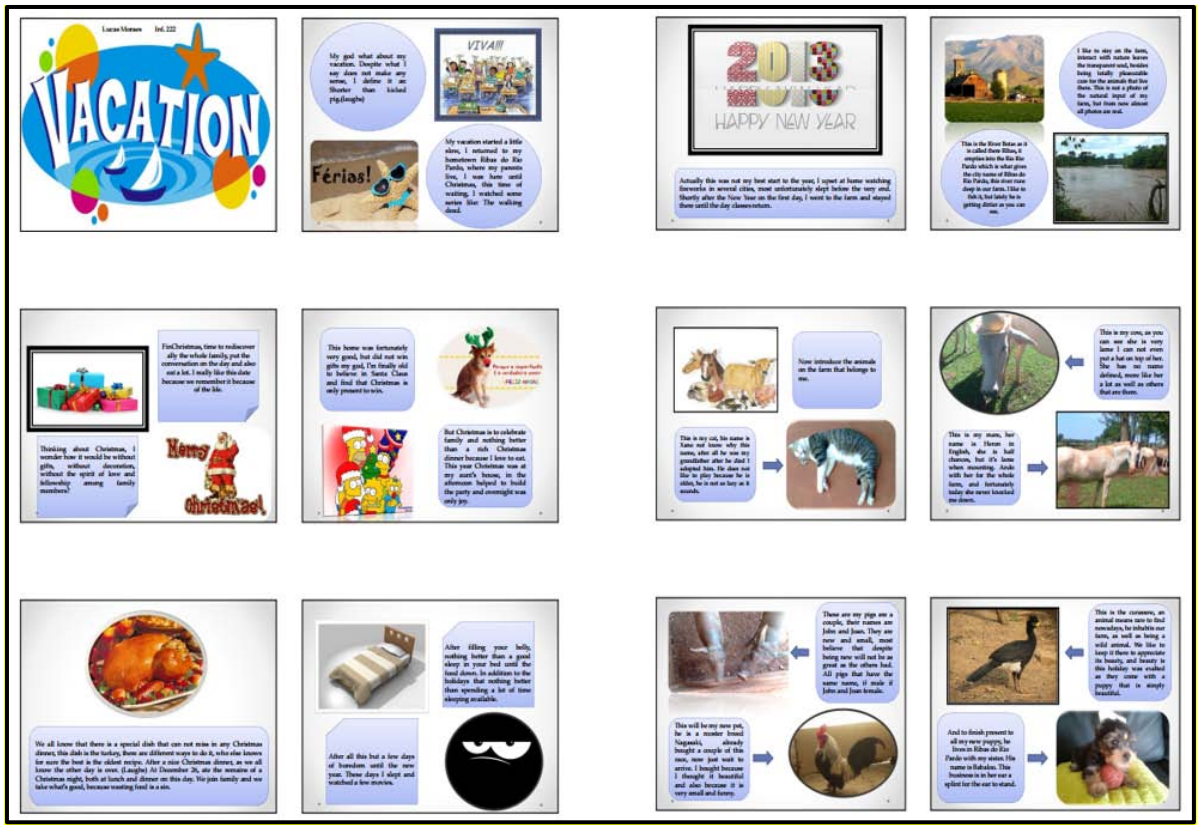
Ao observar o SD 2, o que mais chama a atenção é o fato de o estudante ter criado uma estória. Em vez de demonstrar no trabalho aborrecimento por não ter viajado ou feito coisas interessantes nas férias, preferiu inventar momentos e aventuras em outro país. Para tanto, por meio de montagens, ele se incluiu em imagens que retratam a vida na Índia. Essas montagens foram feitas cuidadosamente, de modo que um leitor desatento pode não perceber a presença do estudante em alguns dos cenários. Outra característica interessante dessa produção diz respeito a forma como o autor interage com um interlocutor numa linguagem que se assemelha à empregada em postagens em redes sociais. Nos textos ficam evidentes também questões culturais da Índia, bem como críticas e ironias do autor.

Scrapbook digital 3 (SD 3)



O autor do SD 3 utiliza memes em vez de fotos para se representar. Esses memes evidenciam também seus sentimentos e sua insatisfação em produzir o trabalho nas férias. Ele inclui também imagens para ilustrar os jogos que jogou e os filmes e animes que assistiu.

Scrapbook digital 4



Em comparação aos outros três trabalhos, chama a atenção a forma em que as imagens, figuras e blocos de texto são apresentados, mantendo certo padrão. O autor do SD 4 descreve em pormenores as atividades realizadas, as tradições familiares e seus animais. Nessa produção, o estudante apresenta uma narrativa de suas férias utilizando pequenos textos escritos em cada uma das páginas.

Diferentemente do SD 4, no SD 1, no SD 2 e no SD 3 não há indícios de sucessão cronológica nas atividades apresentadas pelos estudantes. Em outras palavras, não é possível identificar em que ordem realizaram as atividades mencionadas. Associo essa característica ao conceito de modularidade proposto por Manovich (2001) para caracterizar a possibilidade de dividir os objetos que compõem uma nova mídia sem que eles percam suas características. Em outras palavras, objetos das mídias digitais são compostos de partes independentes entre si, estas partes também compostas de partes menores e igualmente independentes. No caso dos *scrapbooks* digitais com essas características, a alteração da ordem das partes que os compõem não comprometeria o acesso e compreensão do conteúdo apresentado em cada uma das páginas.

Sendo assim, poderiam ter sido acrescentados novos materiais nessas produções, sem que a lógica fosse alterada, como em um banco de dados. O mesmo não é possível quando se trata de narrativas, como é o caso dos jogos de computadores, por exemplo. Os jogos são experienciados como narrativas em que todos os elementos, do ponto de vista dos usuários, são motivados. Isso porque, os jogos, segundo Manovich (2001), não seguem a lógica do banco de dados, mas do algoritmo.

O banco de dados como forma cultural, de acordo com Manovich (2001, p. 9), "representa o mundo como uma lista de itens, e se recusa a ordenar esta lista". Já as narrativas criam trajetórias com relação causa e efeito a partir de itens que podem parecer desordenados. Desse modo, o autor conclui que o banco de dados e a narrativa tem formas diferentes de significar o mundo. Remetendo essa diferenciação às produções em análise, pode-se inferir que, até mesmo SD 4, que apresenta sucessão cronológica, relação de causa e efeito entre as partes que o compõem, a figura do ator/narrador e é constituído por eventos vividos pelo estudante, pode apresentar características do gênero banco de dados. Sendo assim, pode-se inferir que os *scrapbooks* se constituem como uma coleção de fotos, imagens, blocos de textos e outros recursos visuais e de áudio que os aproximam, enquanto gênero, do banco de dados. Ao nível da organização material, são todos bancos de dados, ou seja, um banco de dados pode sustentar uma narrativa, embora nada na lógica do meio estimule, por si só, sua criação (MANOVICH, 2001).

Reflito que se o tema proposto para o trabalho não fosse especificamente o relato das últimas férias dos estudantes, seria possível que as produções se distanciassem ainda das caraterísticas da narrativa. Outra questão que pode ser levantada diz respeito ao programa utilizado para elaboração da maior parte dos trabalhos (*Microsoft PowerPoint*). A esse respeito, ouso defender que tivessem optado pelo uso de um *software* para criação de apresentações não linerares, a exemplo do *Prezi*, mesmo que os itens tivessem sido colocados em determinada sequência para apresentação automática, poderiam ser acessados na ordem desejada pelo usuário ou leitor. Em outras palavras, seria possível que o usuário clicasse em qualquer um dos elementos da apresentação aleatoriamente, acessando-os como itens de uma coleção e, ainda assim, teriam sentido.

No que diz respeito ao emprego do *simple past*, indicado a fim de seguir a ementa da disciplina para o semestre em que o trabalho foi proposto, orientei os estudantes a incluírem em seus *scrapbooks* digitais orações nesse tempo verbal para mencionar as atividades realizadas durante o período de férias. Ao analisar o SD 1, verifica-se que o estudante empregou o tempo verbal sugerido em apenas uma das páginas, sendo que em todas outras descreveu o que vivenciou no período por meio de fotos, memes e algumas expressões verbais.

Já o autor do SD 2, incluiu textos escritos em todas as páginas com a descrição das atividades que 'estava' realizando no momento e dos locais retratados. Entretanto, os textos em sua maioria não são redigidos no tempo verbal passado simples, conforme proposto para a atividade. Pode-se inferir que mesmo tendo bom domínio do idioma, o que pode ser evidenciado nos textos, o estudante opta por descrever as imagens utilizando outras estruturas verbais que correspondam melhor às suas intenções ou vontade. Essa atitude reflete um entendimento que pode ter sido construído ao longo dos semestres anteriores durante a realização de atividades fundamentadas em mesma perspectiva teórica. No SD 3, o autor descreve suas férias com frases curtas utilizando o tempo verbal indicado, entretanto, apresenta diversos desvios. O autor do SD 4 também emprega o *simple past* em todas as páginas, cometendo apenas alguns erros gramaticais.

Embora os estudantes tenham cometido erros no emprego do tempo verbal sugerido, avalio como válida a atividade proposta, em especial, por proporcionar espaço para redação de textos significativos para os estudantes. Associo esse tipo de produção textual ao que é proposto nas Orientações Curriculares para o Ensino Médio: Línguas Estrangeiras (BRASIL, 2006, p. 100) quando seus autores defendem que "a escrita não pode ser vista de forma abstrata, desvinculada do contexto de seus usos e de seus usuários".

Considerando todas as produções das duas turmas, pode-se dizer que a maior parte dos estudantes empregou corretamente o conteúdo gramatical indicado, evidenciando domínio das regras. No entanto, é importante salientar que ao analisar as produções é possível observar que outras habilidades foram desenvolvidas durante a realização do trabalho. Os estudantes pesquisaram as características dos *scrapbooks*, realizaram edição de imagens e aplicaram variados recursos na customização de cada página. Em suma, a proposição de elaboração de trabalho multimodal em formato digital resultou em variedade de trabalhos que superaram as expectativas no que diz respeito à criatividade e materiais usados pelos estudantes. Nesse sentido, pode-se inferir que o uso do *scrapbook* amplia a possibilidade de comunicação e de construção de sentidos por meio de recursos variados.

Segundo a Pedagogia do Multiletramentos, somos ao mesmo tempo "herdeiros de padrões e convenções de sentidos e ativos designers de sentidos" (COPE; KALANTZIS, 2000, p. 7). Com base nessa visão, os autores propõem a teoria do *Design* e defendem que

> os indivíduos têm à sua disposição uma complexa gama de recursos representacionais, nunca simplesmente de uma cultura, mas das muitas culturas de suas experiências de vida; as muitas camadas de sua identidade e as várias dimensões do seu ser. A amplitude, complexidade e riqueza dos recursos disponíveis à construção de sentidos é tal que a representação nunca é uma questão de reprodução. Pelo contrário, é uma questão de transformação; de reconstruir significado de uma forma que sempre acrescenta algo à gama de recursos representacionais disponíveis (ibid., p. 204).

Tendo em vista essa visão de construção de sentidos, Cope e Kalantzis sugerem, inicialmente, seis elementos de *design:* o linguístico, o visual, o áudio, o gestual, o espacial e os padrões que relacionam os cinco primeiros uns aos outros, que são os multimodais. Nesse sentido, relaciono, na sequência, características dos trabalhos dos estudantes que remetem a esses elementos.

No *scrapbooks* digitais analisados, o *design* linguístico é empregado, conforme a noção apresentada pelos autores, ou seja, o uso da língua se distancia de categorias de habilidades mecânicas, em vez disso, enfatiza o potencial produtivo e inovador da língua enquanto um sistema de construção de sentidos.

Segundo Mizan (2014), nossa sociedade produz e consome fotografias como nunca antes, logo, seu uso com propósitos pedagógicos costuma envolver os estudantes. A proposta descrita neste trabalho permitiu a expressão visual por meio de fotos, por meio de cores, perspectivas e planos em imagens. Já o *design* de áudio envolve fontes de representação: músicas, ruídos, sons ambiente, avisos (como forma de representar sentidos para outras pessoas), escutar,

ouvir (representando significados para si mesmo). Destaco que embora o uso de recursos de áudio não tenha sido sugerido para elaboração dos trabalhos foi utilizado em uma das produções.

O *design* gestual também pode ser identificado nas produções, uma vez que a comunicação de modo gestual, além do uso das mãos, envolve outros elementos como olhares e expressões da face, posturas, entre outros. Esses elementos de construção de sentidos são importantes meios de comunicação de sentimentos e emoções. Já o *design* espacial considera que a disposição de elementos não é definida aleatoriamente, e que produzem efeitos nos leitores. *Designs* ou padrões multimodais e a construção de sentidos inter-relação desses diferentes modos de significação, especialmente em textos multimidiáticos digitais, denominados textos multimodais.

Em suma, pode-se inferir a partir das análises que os estudantes construíram conhecimentos durante a produção dos trabalhos. Eles não foram passivos na aprendizagem, já tiveram controle do processo de criação produzindo trabalhos criativos de forma inovadora explorando as possibilidades oferecidas pela gama de recursos disponíveis na *internet*, desenvolvendo habilidades que podem ser relevantes em outros momentos e esferas de suas vidas.

V. Considerações Finais

Neste trabalho, a partir da análise de quatro produções, buscou-se investigar a possibilidade de uso do *scrapbook* digital como ferramenta pedagógica para construção de conhecimentos significativos e verificar se a organização dos conteúdos apresentados remete a características de um gênero banco de dados ou narrativa.

Em relação ao uso do *scrapbook* digital para ensino/aprendizagem de língua inglesa, a partir da experiência relatada neste estudo, considero a possibilidade de seu emprego como ferramenta pedagógica uma vez que pode viabilizar a construção de conhecimentos significativos, em perspectiva ampla. Isso porque a proposta propiciou aos estudantes a possibilidade de decidirem, além dos momentos e situações que seriam descritos, pelo uso de recursos variados para expressarem sentimentos vivenciados em cada momento apresentado, resultando em trabalhos criativos e não padronizados.

Remeto as características da atividade proposta às discussões dos autores Cope e Kalantzis (2012) a respeito da aprendizagem em ambientes multifacetados. De acordo com esses autores, nesses ambientes os alunos não precisam obrigatoriamente estar na mesma página ao mesmo tempo, por exemplo. Ou seja, os "estudantes podem trabalhar em coisas diferentes, dependendo de seus níveis de aprendizagem, necessidades e interesses" (KALANTZIS; COPE, 2012, p. 12). Em conclusão, este estudo pode representar um convite a docentes de línguas a utilizarem o *scrapbook* digital em suas aulas, empregando-o como ferramenta de construção de sentidos a partir de variados recursos multimodais.

Por fim, tendo como base os conceitos de banco de dados e de narrativa discutidos por Manovich (2001), pode-se inferir que a organização dos dados nos *scrapbooks* digitais apresentados neste trabalho remetem em sua maioria às características do gênero banco de dados. Em resumo, a inserção de novos materiais nessas produções poderia ocorrer, sem que sua lógica fosse alterada, como ocorre em um banco de dados.

Em tempo, ressalta-se que as conclusões ora apresentadas são prelimitares e baseadas em um pequeno recorte de trabalhos produzidos em contexto específico. Nesse sentido, seria necessário aprofundamento teórico e analítico de dados a fim de ampliar as discussões sobre as diferentes formas de significar o mundo discutidas por Manovich (2001) e sobre a construção de conhecimentos significativos a partir e por meio de *scrapbooks* digitais produzidos como atividade pedagógica.

References Références Referencias

1. BARBOSA-SILVA, T. R. C. Um olhar situado sobre a ecologia de saberes no Pibid: multiletramentos críticos e formação de professores de Língua Inglesa. 2015. (n.) f. Dissertação (Mestrado em Letras) - Universidade Estadual de Mato Grosso do Sul, Campo Grande/MS, 2015.
2. BRAIT, B. Análise e teoria do discurso. In: Brait, B. (org.). *Bahktin: outros conceitos-chave*. São Paulo: Contexto, 2006, p.9-32.
3. BRASIL. Orientações Curriculares para o Ensino Médio: Línguas Estrangeiras. In: *Linguagens, Códigos e Tecnologias*. Brasília: MEC, 2006. Disponível em: http://goo.gl/RxeyS3. Acesso em: setembro de 2019.
4. COPE, B. KALANTZIS, M.. (Eds.) *Multiliteracies: Literacy Learning and the Design of Social Futures. Routlege: London, 2000.*
5. FREIRE, P. *Pedagogia da autonomia:* saberes necessários à prática educativa. São Paulo: Paz e Terra, 1997.
6. HIRATOMI, L. *et al*. Guia do Professor Scrapbook: a arte de decorar álbuns de fotografias. In: Universidade Estadual Paulista. Prograd. Caderno de Formação: Formação de professores didática dos conteúdos. São Paulo: Cultura Acadêmica, 2011. p.46-52. Disponível em: http://www.acervodigital.unesp.br/bitstream/123456789/40343/1/01d00t03.pdf Acesso em: 01 de setembro de 2019.

7. KALANTZIS, M. COPE, B. *New Learning: Elements of a science of education.* Port Melbourne, Cambridge University Press, 2008.
8. _____. *New learning*: Elements of a science of education. Second edition. Port Melbourne, Victoria, 2012.
9. KRESS, G. *Reading images:* Multimodality, representation and new media, 2003. Disponível em: http://goo.gl/jsJDP6. Acesso em: agosto de 2019.
10. LANKSHEAR, C.; KNOBEL, M.. *New literacies:* Changing knowledge and classroom practice. Buckingham, UK: Open University Press, 2003.
11. MACHADO, I. Gêneros discursivos. In: Brait, B. (org.), *Bahktin: conceitos-chave*. São Paulo: Contexto, 2005, p.151-166.
12. MANOVITCH, Lev. O banco de dados como forma simbólica. In: __. *The language of new media.* Tradução de Sérgio Basbaum. Boston: MIT Press, 2001. Tradução provisória, sem parte das notas, da primeira parte.
13. MARCUSCHI, Luiz Antônio. *Gêneros textuais: definição e funcionalidade.* IN: DIONÍSIO, Ângela Paiva et al. (orgs.).*Gêneros textuais e ensino*. Rio de Janeiro: Lucerna, 2002.
14. MIZAN, S. Letramento visual na mídia In: Nara Hiroko Takaki; Ruberval Franco Maciel. (Org.). *Letramentos em Terra de Paulo Freire*. Campinas: Pontes, 2014.
15. MORIN, E. *A cabeça bem-feita*: repensar a reforma – reformar o pensamento. Tradução de Eloá Jacobina. 5. Ed. Rio de Janeiro: Bertrand Brasil, 2000.
16. RANCIÈRE, J. *O mestre ignorante:* Cinco lições sobre a emancipação intelectual. Belo Horizonte: Autêntica, 2007.
17. ROJO, Roxane; BARBOSA, Jacqueline M. Hipermodernidade, multiletramentos e gêneros discursivos. 1. ed. São Paulo: Parábola Editorial, 2015.
18. SANTAELLA, Lucia. Gêneros discursivos híbridos na era da hipermídia. *Bakhtiniana, Rev. Estud. Discurso.* São Paulo, v. 9, n. 2, p. 206-216, Dec. 2014. Disponível em: <http://www.scielo.br/scielo.php?script=sci_arttext&pid=S2176-45732014000200013&lng=en&nrm=iso>. Acesso em: 07 de setembro de 2019. http://dx.doi.org/10.1590/S2176-45732014000200013.

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Artificial Intelligence and Student Learning Practices: A Study of Urban Higher Education in Odisha

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Keywords: artificial intelligence (AI), higher education, urban odisha students, demographic variables, academic and general AI usage, quantitative research.

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Abstract- This study examines the adoption patterns of artificial intelligence (AI) among higher education students in urban Odisha, India, emphasising both general and academic applications. Data were collected from 100 students at four major urban universities in Odisha through an online quantitative survey using Google Forms and analysed the data collected using descriptive statistics and the non-parametric Mann-Whitney U test to evaluate the impact of demographic factors on AI engagement. The results indicate that the utilisation of AI for both general activities (including information retrieval, translation, and entertainment) and academic endeavours (such as research, writing, and exam preparation) is prevalent and predominantly unaffected by demographic factors such as gender, age, academic standing, family structure, and field of study. This demographic neutrality underscores AI's widespread allure, indicating that its incorporation into higher education has the capacity to surpass conventional social and institutional barriers. Percentage trends indicate subtle variations in user behaviours; however, these variations lack statistical significance, underscoring the necessity for user-centric methodologies that transcend general demographic classifications. The study emphasises the significance of utilising AI to democratise education and guide inclusive policy and curriculum development, especially in under-represented areas such as Odisha. These insights contribute to the discourse on AI in education by demonstrating its potential to promote equitable access and tailored learning environments, while also indicating avenues for sophisticated qualitative research on individual motivations and longitudinal trends in AI adoption.

Keywords: artificial intelligence (AI), higher education, urban odisha students, demographic variables, academic and general AI usage, quantitative research.

I. Introduction

According to Nelson Mandela, "Education is the most powerful weapon which you can use to change the world." Education serves as a fundamental pillar for national development by imparting knowledge, skills, and capabilities to individuals. In today's technology-driven society, education's goal extends beyond knowledge transmission to the development of vital skills that enable students to innovate, solve problems, and contribute meaningfully to society (Alshahrani et al., 2024; Deep et al., 2023).

Artificial Intelligence (AI) represents one of the most significant technological innovations shaping this tech-enhanced world. Interest in AI has surged recently, with society recognizing how AI will transform daily living, learning, and working. It is no longer limited to future speculation or specialized labs but is integrated into daily life and social institutions globally (Joyce & Cruz, 2024). The National Education Policy (NEP) 2020 highlights the role of scientific and technological advancements, such as AI and machine learning, in revolutionizing skill requirements—emphasizing the increasing demand for a workforce skilled in mathematics, computer science, data science, and interdisciplinary knowledge spanning sciences, social sciences, and humanities (NEP 2020).

Artificial Intelligence in the educational context (AIED) specifically refers to integrating AI technologies—such as intelligent systems and machine learning algorithms—into teaching and learning processes to enhance educational outcomes by personalizing learning, automating administrative tasks, and innovating instructional methods (Alshahrani et al., 2024; Ayyash, 2020; Crompton, 2021; Maphosa et al., 2023; Zhang, 2021).

From a sociological viewpoint, AI is understood as a socio-technical system that intertwines social and technical elements, where human actors interface with technologies, and data emerge from specific social conditions (Joyce & Cruz, 2024). Sartori and Theodorou (2022) emphasize that sociology offers valuable insights into the social implications of AI. The concept of the "urban social" embraces globalization, trans-local influences, and non-human technology's impact within urban societies, interlinked with issues like social trust, economic equality, education, healthcare, and labor markets (Amin, 2007; Kolesnichenko et al., 2021; Rothstein & Uslaner, 2005; Sotnik, 2021). Developing advanced societies requires adhering to citizens' needs and aspirations, where the smart city concept plays a crucial role—leveraging technology such as high-speed internet, urban cybernetics, AI-driven health care, and robotics to enhance urban well-being and sustainability

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(National Academies of Sciences, Engineering, and Medicine, 2016; Thompson, 2016; World Economic Forum, 2018). In this light, AI applications are essential for uplifting modern society.

Higher education is pivotal for national development through economic, social, and technological transformation—recognized as a "sunrise sector" for its role in producing a skilled workforce (Bera & Pramanik). In the era of globalization and digitalization, embracing advanced technologies like AI empowers individuals and organizations to navigate interconnected contexts effectively (Schiff, 2022). Therefore, studying AI use among higher education students in Odisha is vital, as this group significantly contributes to national progress.

This study seeks to address this context by examining AI adoption patterns among urban higher education students in Odisha—a region where limited research exists despite the growing higher education sector. This research fills a critical knowledge gap by exploring AI usage in this specific socio-educational and geographical setting, contributing to the understanding of AI's role in education within an Indian context.

II. Need and Significance

Artificial intelligence (AI) is defined as the capability of a computer or machine to perform tasks that involve higher cognitive processes such as reasoning, inference, generalization, and learning from past experiences—functions traditionally associated with human intelligence (Nabiyev, 2005). In education, Artificial Intelligence in Education (AIED) holds transformative potential across all stages of learning by enabling personalized learning experiences and enhancing student engagement and success (Crompton & Burke, 2023; Holmes & Tuomi, 2022; Zawacki et al., 2019).

Higher education serves as a catalyst for economic development, research advancement, cultural preservation, and technological innovation. It plays a vital role in advancing nations and contributing significantly to global economic growth (Jongbloed et al., 2008). Consequently, higher education forms the foundation of the present study, focusing on how AI impacts this sector.

Perceptions significantly influence technology acceptance (Davis, 1989). Within education, students' perceptions critically affect the successful integration of technology into learning activities (Sumakul, 2022). Therefore, before incorporating artificial intelligence tools into higher education, it is essential to understand how students perceive and engage with AI.

Despite numerous studies on AI adoption conducted globally and within other regions of India, there is a notable contextual gap concerning AI use among higher education students in Odisha (Joyce & Cruz, 2024; Keles & Aydın, 2021; Ladda & Saraf, 2019; Sharawy, 2023; Sumakul, 2021). Recognizing this gap, this study intentionally focuses on urban higher education students in Odisha, addressing an underexplored setting to contribute valuable insights into regional AI adoption trends.

III. Conceptual Framework

Artificial intelligence (AI) is increasingly significant in our daily lives, subtly changing our ways of thinking, behaving, and interacting (Chen et al., 2020a). AI refers to the ability of digital machines to perform tasks typically requiring human intelligence, supported by technologies such as computer vision, speech-to-text, and natural language processing (Chiu et al., 2023). It is an interdisciplinary field involving informatics, logic, cognition, systems science, and biology (Hon, 2019). Practical AI applications include knowledge processing, pattern recognition, machine learning, expert systems, and intelligent robots (Jackson, 2019).

The rapid adoption of AI technologies in education is transforming classroom instruction and higher education institutions (Zhang & Aslan, 2021). AI has the potential to revolutionize higher education by helping universities adapt to the digital age, preparing students for the job market, and ensuring graduates remain competitive (Alshahrani et al., 2023).

The adoption of Artificial Intelligence in Education presents impressive opportunities for enhancing the higher education system. However, its integration required a holistic understanding of the perception of a wide range of stakeholders, beyond educators and students, to ensure its successful and inclusive implementation (Choi et, al 2022, Chan et, al 2023) Additionally, assessing and improving the readiness of educational institutions for AI integration is crucial. The collaborative effort among stakeholders is key to realizing AIED's transformative potential responsibly and equitably (Asirit et, al 2023).

Application of Artificial Intelligence

1. Automation

Process automation by AI can be implemented relatively quickly and to good effect in companies (Davenport & Ronanki, 2018), and HEIs can also use AI to automate routine processes currently carried out by academic and administrative staff, such as updating records, collating information, and sending mass communications (Rodway & Schepman, 2023). In addition to saving staff time, automated communication systems can help students feel motivated, recognized for their work, and connected to the teaching team (Broadbent, 2020).

2. Transformative Impact

The technologies that have been developed include intelligent tutoring systems such as chatbots

(Chocarro et al., 2021; Nye, 2015; Smutny & Schreiberova, 2020), which are able to provide individualized teaching support and coaching (Yang & Evans, 2019) and feedback (Dawson et al., 2018; see also Følstad, Skjuve, & Brandtzaeg, 2019, for a chatbot typology). Intelligent tutor chatbots can be embedded in learning management systems (LMS) (e.g. Moodle, Blackboard), as part of the management of a course or module, or they can exist alongside the LMS as a personal tutoring coach (Luckin et al., 2016).

3. Multiple Assessments Procedures

AIEd technologies can be used for student assessment, including the automated grading of coursework and formative assessments (Dumelle, 2020; Hsu et al., 2021) and the proctoring of online exams, with the use of biometrics, such as face recognition, to detect cheating (Swauger, 2020).

4. Enhancing Skills

AI can also enhance immersive virtual reality systems, where the AI enables students to practise key skills in realistic settings, such as the learning of languages (Hannan & Liu, 2021; Luan et al., 2020; McKenzie, 2018), or the acquisition of surgical skills (e.g. Fazlollahi et al., 2022).

5. Flexible Learning Experience

Artificial intelligence provides flexible learning experiences to the higher education students through multiple ways like personalized learning path, virtual and augmented reality integration, collaboration & interactive learning tools serving as teaching assistants for courses (Kim et al., 2020). Further, chatbots can provide 24/7 academic advice to students, serving as a source of information for many aspects of university life, including timetabling and module organization (Rouhiainen, 2019).

6. Enhance Services and Cost Effective

AIEd technologies are expected to enhance services and provide cost savings (Kim et al., 2020; Luckin et al., 2016). AI automation can free members of staff from routine tasks so they can spend more time on high value tasks such as curriculum development, designing teaching materials, and research along with also provide the students free intelligent tutoring systems for their individualized upliftment.

7. Promote Distance Learning

Application of artificial intelligence in distance education aims to study the use of computers to make up the gap between students and educators (Kose, 2014). In distance education, artificial intelligence technology has been used to support distance education. Different intelligent tools have been developed to provide education to all in an affordable way.

IV. Research Questions

Using the study the researchers intend to answer the following research questions:

1) How do university students of Odisha belonging to urban areas, use AI for general and academic purpose?
2) How do university students of Odisha belonging to urban areas vary in terms of their uses of AI based on demographic variables (Gender, Age, University, Family Type, Academic level, & Field of study)?

V. Hypotheses

$H_{01} – H_{05}$: There is no significant difference in the use of AI for general purposes among university students from urban areas in Odisha based on their gender, age groups, family type, academic level and field of study

$H_{06} – H_{10}$: There is no significant difference in the use of AI for academic purposes among university students from urban areas in Odisha based on their gender, age groups, family type, academic level and field of study

VI. Methodology

Research Design, Population and Sample: The present study aimed to examine the general and academic use of artificial intelligence (AI) among urban university students in Odisha, considering their demographic variables such as gender, age, academic background, and level of qualifications. To achieve this objective, a quantitative survey method was employed. The target population comprised all higher education students from urban areas studying at different universities across Odisha. However, due to accessibility, the accessible population was limited to urban students from four major universities in Odisha: Ravenshaw University, Ramadevi Women's University, Maharaja Sriram Chandra Bhanjadeo University, and Utkal University. To represent this population, a convenience sampling method was used to select 100 students from these universities. While convenience sampling facilitated data collection within practical constraints, it is acknowledged as a limitation that may affect the generalizability of findings. Future research could adopt stratified or random sampling techniques to enhance representativeness.

Tool Description: In view of the study's focus on the use of artificial intelligence among university students, the researcher reviewed catalogues of various AI assessment tools published by established academic sources. A thorough literature review revealed that existing scales did not adequately align with the objectives of this study. Recognizing this gap, the researcher developed and standardized a self-constructed Artificial Intelligence Scale specifically tailored to assess university students' perceptions and

usage of AI in higher education contexts. The item development process incorporated significant considerations from the recommendations of various educational committees and commissions regarding AI's role and impact. The resulting scale was administered via Google Forms and comprised three distinct sections. The first section gathered demographic information, including age, gender, religion, course of study, family type, academic level, and residential area. The second section contained five statements addressing the general use of artificial intelligence. The third section included fifteen statements focusing on the academic use of AI within higher education. The scale employed a five-point Likert response format, with categories ranging from "Strongly Agree" to "Strongly Disagree." To ensure the instrument's scientific rigor, face validity and construct validity were established through expert evaluation prior to data collection. Although reporting reliability metrics such as internal consistency coefficients (e.g., Cronbach's alpha and omega) would have further strengthened the scale's psychometric robustness before administration, this preliminary validation process provides a foundational basis supporting the tool's suitability for addressing the study's objectives.

The study specifically focuses on the general and academic uses of artificial intelligence among urban higher education students, emphasizing observable and measurable AI interaction in both daily and educational contexts. The scope intentionally centres on these dimensions to maintain clarity and depth within the research objectives. While other dimensions of AI usage such as ethical considerations, accessibility, equity, and student readiness are recognized as important factors influencing AI usage, these were not included in the current instrument to preserve focus and feasibility given the constraints of the research design, sample size, and data collection procedure. This focused approach allowed for detailed examination of primary usage patterns, providing a strong foundation for understanding AI integration in this context. Subsequent studies may build on this framework to explore additional dimensions, including ethical implications, equitable access, and readiness factors, thereby expanding the comprehensive understanding of AI's impact in higher education.

Procedure of Data Collection: Data for the present study were collected using an online survey method. The self-constructed Artificial Intelligence Scale was administered through Google Forms, which was distributed to participants via digital platforms such as WhatsApp to ensure wide reach and ease of access. This approach facilitated convenient and timely data collection from the targeted sample of 100 urban higher education students across four universities in Odisha. Prior to data collection, the purpose and ethical considerations of the study were communicated to participants, and informed consent was obtained. Although the online data collection method ensured accessibility, it is acknowledged that it may have excluded potential participants with limited internet access.

Data Analysis: The raw data were exported from Google Sheets linked to Google Forms and analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics, including frequencies and percentages, were computed to summarize participants' demographic profiles and their patterns of general and academic use of artificial intelligence. To assess the suitability of parametric tests, the distribution of the AI usage data was examined for normality. The coefficient of skewness for general AI use was -1.329, and the coefficient of kurtosis was 0.833. For academic AI use, the skewness was -1.739, and kurtosis was 2.661. These values indicate deviation from normal distribution due to significant negative skewness and elevated kurtosis in academic AI use. Owing to this non-normality of data, the study employed the Mann-Whitney U test, a non-parametric alternative to the independent samples t-test, to test for significant differences in AI usage across demographic groups. This approach ensured robust inferential analysis while accommodating the observed data distribution characteristics.

VII. Analysis and Results

a) Demographic Profile of the Respondents

A sample of 100 higher education students was chosen from the population. The demographic profile of the respondents is mentioned in the table 1 below.

Table 1: Demographic Profile of the Respondents

Sl. No.	Demographic Variables	Categorical Division	Number	Percentage
1.	Gender	Female	60	60%
		Male	40	40%
2.	Age	17-22	66	66%
		22 & above	34	34%
3.	Type of family	Nuclear	59	59%
		Joint	41	41%
5.	Academic Level	Under-graduate	43	43%
		Post-graduate	57	57%
6.	Field of study	Sciences	48	48%
		Arts & Humanities	52	52%

b) Analysis of usage of AI for General Purposes

The five primary general purposes of using AI—convenient information access, language translation, idea generation, language improvement, and entertainment—were examined as percentages across demographic variables, including gender, age, family type, academic level, and field of study.

For **convenient information access,** both males and females showed similar agreement levels, with males (45%, n=18) and females (48.3%, n=29) primarily agreeing. Younger (47%, n=31) and older participants (47.1%, n=21) demonstrated nearly identical preferences, while individuals from joint families (47.5%, n=28) slightly outpaced those from nuclear families (46.3%, n=19). Postgraduates (52.6%, n=30) showed stronger reliance on AI compared to undergraduates (39.5%, n=17).

For **language translation,** males (52.5%, n=21) and females (50%, n=30) expressed comparable agreement. Younger participants (50%, n=33) showed similar preferences to older ones (52.9%, n=18). Family type revealed close agreement rates between nuclear (51.2%, n=21) and joint families (50.8%, n=30). Arts students (51.9%, n=27) showed slightly stronger agreement than Science students (50%, n=24). Postgraduates (54.4%, n=31) had a higher preference compared to undergraduates (46.5%, n=20).

For **idea generation,** males (55%, n=22) showed higher agreement than females (50%, n=30). Younger participants (51.5%, n=34) agreed more, while older participants (52.9%, n=18) reported stronger preferences. Joint families (57.6%, n=34) surpassed nuclear families (43.9%, n=18). Science students (56.3%, n=27) exhibited stronger preferences than Arts students (48.1%, n=25), with postgraduates (63.2%, n=36) showing significantly stronger agreement than undergraduates (37.2%, n=16).

For **language improvement,** females (43.3%, n=26) showed higher agreement than males (35%, n=14). Younger participants (42.4%, n=28) demonstrated slightly stronger preferences than older participants (35.3%, n=12). Joint families (42.4%, n=25) had higher agreement compared to nuclear families (36.6%, n=15). Arts students (44.2%, n=23) showed stronger preferences than Science students (35.4%, n=17), while postgraduates (42.1%, n=24) outpaced undergraduates (37.2%, n=16).

For **entertainment,** females (51.7%, n=31) agreed more than males (45%, n=18). Younger participants (51.5%, n=34) also showed higher preferences than older ones (44.1%, n=15). Nuclear families (51.2%, n=21) slightly exceeded joint families (47.5%, n=28). Arts students (51.9%, n=27) demonstrated stronger preferences than Science students (45.8%, n=22). Postgraduates (54.4%, n=31) again showed the highest agreement compared to undergraduates (41.9%, n=18).

c) Analysis of usage of AI for Academic Purposes

Key usage of AI for academic purposes included generating research ideas, conducting quick literature surveys, data analysis, plagiarism detection, grammar correction, paraphrasing and summarizing, managing references and citations, exploring study content, writing assignments and Q&A, speech-to-text

and text-to-speech conversion, preparation for upcoming class, self-tutoring, exam preparation, presentation preparation, and lab-related tasks.

The data showed notable gender differences in **generating research ideas,** with females showing higher overall agreement (66% combining Agree and Strongly Agree) compared to males (38%). Age-wise, younger students (17-22) demonstrate more enthusiasm, with 65% showing agreement compared to 58% for those over 22. Nuclear families showed particularly strong engagement, with 73% agreeing or strongly agreeing, compared to 56% in joint families. In terms of academic streams, humanities students showed stronger inclination (65% combined agreement) versus sciences (61%). The most striking difference appeared at the academic level, where undergraduates showed notably higher strong agreement (49%) compared to postgraduates (21%).

The pattern for **quick literature survey** showed interesting variations across demographics. Gender-wise, females showed higher combined agreement (55%) compared to males (53%). The age group analysis revealed similar patterns between younger and older students, though 17-22 year olds showed slightly higher strong agreement (32% vs 24%). Nuclear families demonstrate stronger engagement (58% combined agreement) compared to joint families (50%). The streams showed minimal difference in overall agreement, though humanities students showed slightly lower strong agreement (31%) compared to science students (27%). Undergraduate students showed notably higher strong agreement (37%) compared to postgraduates (23%).

Data analysis showed strong agreement across all demographics, with particularly high combined agreement rates. Both genders showed strong positive response, with females showing slightly higher combined agreement (83%) compared to males (70%). The age groups showed similar patterns, with both showing about 82% combined agreement. Family type showed some variation, with nuclear families showing higher strong agreement (32%) compared to joint families (25%). Both streams showed strong engagement, though humanities showed slightly higher combined agreement (83%) versus sciences (73%). Academic levels showed similar patterns of high agreement, though undergraduates showed slightly higher strong agreement.

For **plagiarism detection,** the data showed consistent patterns across demographics but with some notable variations. Females showed slightly higher combined agreement (61%) compared to males (70%). The age analysis showed higher agreement among older students (76%) compared to younger ones (59%). Joint family students showed higher combined agreement (71%) versus nuclear family students (56%). Science stream students showed notably higher strong agreement (27%) compared to humanities students (10%). Postgraduate students showed higher combined agreement (71%) compared to undergraduates (58%).

Grammar correction showed consistent patterns of high agreement across demographics, though with some notable variations. Females showed slightly lower strong agreement (17%) compared to males (18%) but higher overall agreement (70% vs 83%). Age groups showed similar patterns, with older students showing marginally higher combined agreement (86%) versus younger students (70%). Joint family students demonstrate higher combined agreement (82%) compared to nuclear family students (66%). Science stream students showed notably higher combined agreement (82%) versus humanities students (69%). Postgraduates showed higher combined agreement (83%) compared to undergraduates (66%).

The use of **paraphrasing and summarizing** tools showed moderate agreement across demographics. Gender analysis revealed similar patterns between males (65% combined agreement) and females (53%). Younger students (17-22) showed slightly lower strong agreement (12%) compared to older students (24%). Nuclear family students showed slightly higher combined agreement (54%) versus joint family students (61%). Science stream students demonstrated higher strong agreement (25%) compared to humanities students (8%). Postgraduates showed higher combined agreement (63%) compared to undergraduates (51%).

Referencing and citation management showed strong agreement across most demographics. Females showed slightly higher combined agreement (66%) compared to males (71%). Age groups showed similar patterns, though older students demonstrated slightly higher strong agreement (26% vs. 20%). Nuclear family students showed higher combined agreement (69%) compared to joint family students (68%). Science stream students showed higher strong agreement (29%) versus humanities students (15%). Postgraduates demonstrated higher combined agreement (75%) compared to undergraduates (58%).

Exploring study content showed consistently high agreement across all demographics. Males and females showed similar patterns of agreement (88% and 80% combined agreement respectively). Both age groups demonstrated high agreement, with older students showing slightly higher combined agreement (89% vs 80%). Joint and nuclear families showed similar patterns, though nuclear families showed slightly higher strong agreement (32% vs 27%). Both streams showed strong engagement, with sciences showing slightly higher combined agreement (85% vs 81%). Postgraduates showed marginally higher combined agreement (84%) compared to undergraduates (82%).

The patterns for **writing assignment and Q&A** showed moderate to high agreement across demographics. Females show higher combined agreement (68%) compared to males (60%). Younger students demonstrated slightly higher strong agreement (29%) versus older students (18%). Nuclear family students showed higher combined agreement (69%) versus joint family students (62%). Humanities students showed slightly higher strong agreement (29%) compared to science students (21%). Undergraduate students showed higher strong agreement (33%) compared to postgraduates (19%).

Speech-to-text and text-to-speech conversion showed consistent patterns across demographics. Both genders showed similar combined agreement (71% for males, 72% for females). Age groups demonstrated similar patterns, though younger students showed slightly higher strong agreement (24% vs 18%). Nuclear family students showed slightly higher combined agreement (68%) versus joint family students (73%). Both streams showed similar patterns, though humanities students showed slightly higher strong agreement (25% vs 19%). Postgraduates showed higher combined agreement (74%) compared to undergraduates (68%).

Preparing for upcoming classes showed moderate to high agreement across demographics. Males showed slightly higher combined agreement (70%) compared to females (61%). Age groups showed similar patterns, though older students showed higher strong agreement (35% vs 24%). Joint and nuclear families showed similar patterns of agreement (67% and 63% respectively). Science stream students showed higher strong agreement (35%) compared to humanities students (21%). Postgraduates showed higher combined agreement (69%) versus undergraduates (60%).

Self-tutoring showed strong agreement across demographics. Males showed slightly higher combined agreement (78%) compared to females (67%). Older students showed notably higher strong agreement (41% vs 17%). Nuclear family students showed higher combined agreement (66%) versus joint family students (75%). Science stream students showed higher strong agreement (35%) compared to humanities students (15%). Postgraduates showed higher combined agreement (77%) versus undergraduates (63%).

Exam preparation showed consistently high agreement across demographics. Both genders showed similar patterns of agreement (76% males, 68% females). Older students showed higher combined agreement (74%) versus younger students (70%). Joint family students showed slightly higher combined agreement (73%) compared to nuclear family students (68%). Both streams showed similar patterns, though sciences showed slightly higher combined agreement (77% vs 65%). Postgraduates showed higher combined agreement (76%) compared to undergraduates (66%).

Presentation preparation showed strong agreement across demographics. Males and females show similar combined agreement (75% and 71% respectively). Both age groups showed similar patterns, though younger students showed slightly higher strong agreement (26% vs 21%). Nuclear and joint family students showed similar patterns of agreement (71% and 74% respectively). Both streams showed strong engagement, with sciences showing slightly higher combined agreement (77% vs 69%). Postgraduates showed higher combined agreement (75%) versus undergraduates (70%).

Lab activities showed moderate agreement across demographics. Males showed slightly higher combined agreement (63%) compared to females (60%). Older students show higher combined agreement (68%) versus younger students (57%). Joint family students showed slightly higher combined agreement (62%) compared to nuclear family students (59%). Science stream students showed higher combined agreement (65%) versus humanities students (58%). Postgraduates showed higher combined agreement (63%) compared to undergraduates (58%).

d) Testing of Hypotheses for General and Academic Purposes

The analysis of the data reveals that there is no significant difference in the general use of artificial intelligence among university students from urban areas in Odisha across various demographic variables. The calculated "p" value for gender (male and female) is 0.450, for age groups (17–22 and 22 & above) is 0.718, for family type (nuclear and joint) is 0.952, for academic level (UG and PG) is 0.693, and for academic background (science and arts) is 0.815. All these values exceed the 0.05 level of significance ($p > 0.05$). Consequently, the null hypotheses—H_{01}, H_{02}, H_{03}, H_{04}, and H_{05}—stating no significant difference in the general use of AI among students based on gender, age group, family type, academic level, and academic background, respectively, are accepted. This indicates consistent usage patterns of AI for general purposes across these demographic groups. This also suggests that factors such as gender, age, family type, qualification level, and academic background do not significantly influence the general use of AI among university students in urban areas of Odisha.

Furthermore, the analysis also reveals no significant difference in the academic use of artificial intelligence among university students from urban areas in Odisha across various demographic variables. The calculated "p" value for gender (female and male) is 0.544, for age groups (17–22 and 22 & above) is 0.486, for family type (nuclear and joint) is 0.913, for academic

level (UG and PG) is 0.430, and for academic background (science and arts) is 0.216. All these values exceed the 0.05 level of significance ($p > 0.05$). Accordingly, the null hypotheses—H_{06}, H_{07}, H_{08}, H_{09}, and H_{010}—stating no significant difference in the academic use of AI among students based on gender, age group, family type, academic level, and academic background, respectively, are accepted. This suggests consistent patterns in the use of AI for academic purposes across these demographic groups also. Therefore, it can be concluded that factors such as gender, age, family structure, qualification level, and academic background do not significantly influence the academic use of AI among university students in urban areas of Odisha.

VIII. Major Findings

This study aimed to examine the general and academic use of artificial intelligence (AI) among urban higher education students in Odisha and to compare AI use based on demographic variables such as gender, age, academic level, family type, and field of study. The findings are presented below in relation to these objectives.

The use of AI for general purposes among students was evident across various areas including information access, language translation, idea generation, language improvement, and entertainment. For information access, males (45%) and females (48.3%) showed similar engagement, with postgraduates (52.6%) using AI more than undergraduates (39.5%). Language translation exhibited high adoption across demographics (50-54%), again with postgraduates leading (54.4%). Idea generation saw postgraduates (63.2%) significantly surpass undergraduates (37.2%), with family type and gender differences also notable. Language improvement was more prevalent among females (43.3%) than males (35%) and more common among arts students (44.2%) than science students (35.4%). Younger students (42.4%) and postgraduates (54.4%) used AI more for entertainment compared to older students (35.3%) and undergraduates (41.9%).

For academic purpose, students used AI extensively for research idea generation, literature surveys, data analysis, plagiarism detection, grammar correction, paraphrasing, content exploration, writing, exam preparation, and lab tasks. Female students showed higher engagement than males in research idea generation (66% vs 38%), while consistent and high agreement was observed across demographics for key functions like data analysis (70-83%) and literature surveys (53-55%). Writing tools such as grammar checkers and plagiarism detectors were widely used, with agreement rates ranging from 61% to 83%. Study preparation activities similarly demonstrated strong adoption, with exam and presentation preparations registering high agreement. Supporting activities such as lab work, self-tutoring, and speech-to-text conversion also showed moderate to strong usage.

While descriptive percentages depict subtle demographic variations in AI use, none of these differences were statistically significant. The Mann-Whitney U tests confirmed no variation by gender, age, family type, academic level, or academic background for both general and academic AI use purposes (all p-values > 0.05). This outcome underscores that AI adoption among urban higher education students in Odisha transcends demographic boundaries, aligning with the research hypotheses stating no significant group differences.

IX. Discussion

The findings from this study provide important insights into the adoption of artificial intelligence (AI) among urban higher education students in Odisha, highlighting both the widespread integration of AI tools and nuanced demographic patterns. (Ayeni et al., 2024; Chetry 2024; Jackson & Jackson, 2024; Javvaji & Raghavulu, 2024; Ou, 2024). As our results revealed subtle yet notable variations (statistically isignificant) in AI use across gender, academic level, family type, and age, this raises important considerations about how these demographic differences might influence educational experiences around creativity, autonomy, and student-teacher relationships.

AI! Weakening connection or empowering learners? Our findings show higher agreement in AI use for self-tutoring, study content exploration, and exam preparation, especially among postgraduates and female students. This supports the perspective that AI fosters learner autonomy and self-directed learning (Banerjee & Bhattacharya, 2024; Lukianets & Lukianets, 2023; Ma et al., 2024;) allowing students greater control over knowledge acquisition. However, the demographic trends also raise concerns about a potential weakening of traditional student-teacher interactions, as increased reliance on AI might reduce opportunities for mentorship and collaborative learning. The balance between AI-enabled independence and preserving meaningful human engagement remains critical.

Threat to Originality and Creativity: The significant use of AI in research idea generation and data analysis, particularly among postgraduates, foregrounds the ongoing debate about AI's impact on creativity. While some studies suggest that AI automates and homogenizes creative processes, potentially undermining originality (Habib et al., 2024; Liu et al., 2024; Sarkar, 2023), others argue that AI can augment creativity by providing novel insights and freeing cognitive resources (Agarwal, 2024; Hassan et al., 2024). Our findings indicate that students' adoption of AI tools is nuanced

and context-dependent, suggesting that students might strategically use AI to aid creativity without fully substituting human ideation.

Awareness of AI Limitations: Interestingly, AI usage for literature surveys and related academic tasks was moderate compared to other applications, which may reflect students' awareness of AI's potential limitations, such as hallucinations or inaccuracies (Bolaños, 2024; Mozelius & Humble, 2024; Zybaczynska et al., 2024). This cautious adoption underscores a critical awareness necessary for maintaining academic integrity, signaling that students differentiate between tasks where AI assistance is beneficial and those requiring higher scrutiny and human judgment.

Rethinking Educational Practices in the AI Era: The prevalence of AI-enabled writing, Q&A, and presentation preparation indicates that traditional pedagogical assessments may need revisiting to accommodate AI's capabilities (Shishavan, 2024; Fonkam et al., 2024). Educators should design assignments that foster critical thinking and creativity, ensuring that AI serves as a tool rather than a crutch. Additionally, hybrid assessment models combining conventional and AI-informed approaches could help maintain rigor while embracing innovation (Lukianenko & Kornieva, 2024).

Practical and Policy Implications: Aligned with the National Education Policy (NEP) 2020's emphasis on multidisciplinary and skill-based education, our study highlights the need for universities in Odisha to implement AI literacy and ethical training programs. Such initiatives can help students harness AI's benefits while navigating its challenges responsibly. Additionally, faculty development programs should focus on integrating AI into curricula thoughtfully to preserve creativity and interpersonal engagement. Institutions must also develop policies to safeguard academic originality and mitigate potential over-reliance on AI technologies. Collaborative frameworks involving educators, technologists, and policymakers are essential to create balanced, inclusive approaches to AI integration that reflect the needs and aspirations of Odisha's diverse student population.

X. Conclusion

In conclusion, the adoption of AI for general and academic purposes among urban higher education students in Odisha presents a dynamic yet inclusive landscape. Despite the observable variations in percentage analysis across demographic groups, inferential statistical analysis underscores a key insight: AI usage is largely independent of demographic factors, signifying its universal appeal and utility across diverse student populations. This demographic neutrality affirms the broader adaptability of AI tools, transcending barriers of age, academic level, or other socio-demographic variables.

The paradoxical findings between percentage variations and statistical insignificance further illustrate the importance of delving deeper into individual preferences and behaviors. While undergraduate and postgraduate students exhibit distinct usage patterns, these differences lack statistical significance, pointing to personal choices rather than systematic academic-level contrasts. Similarly, the widespread adoption of AI for academic purposes—such as content exploration, data analysis, and language improvement—reveals its pivotal role in enriching the learning experience for students across varied educational pursuits.

Methodologically, this study underscores the need for a dual-approach analysis that integrates both descriptive statistics and inferential methods. Such an approach offers nuanced insights, cautioning against hasty generalizations based solely on percentage-based observations. This calls for a shift toward user-centric frameworks that prioritize understanding individual motivations, preferences, and behaviors over demographic categorizations.

Looking ahead, future research should expand the horizons of AI adoption studies by examining non-demographic factors influencing tool preferences and usage patterns. Qualitative investigations could shed light on the subjective experiences shaping AI engagement, while longitudinal studies could provide valuable insights into evolving trends over time. Additionally, targeted research on high-adoption tools can inform strategies for optimizing their design and integration into academic settings. Ultimately, the findings highlight a promising trajectory for AI in higher education, demonstrating its widespread acceptance and potential to democratize learning. By leveraging AI's universal appeal and refining its application to suit individual needs, urban higher education institutions in Odisha can continue to foster an innovative, inclusive, and forward-looking academic environment.

References Références Referencias

1. Alshahrani, B. T.; Pileggi, S .F.; Karimi, F.(2024) A Social Perspective on AI in the Higher Education System: A Semisystematic Literature Reviews Electronics 2024, 13, 1572. https://doi.org/10.3390/electronics13081572
2. Ahmad, K.; Qadir, J.; Al-Fuqaha, A.; Iqbal, W.; El-Hassan, A.; Benhaddou, D.; Ayyash, M. Data-Driven Artificial Intelligence in Education: A Comprehensive Review. IEEE Trans. Learn. Technol. 2020, 17, 12–31.
3. Amin A (2007) Re-thinking the urban social. City 11(1):100–114. https://doi.org/10.1080/13604810701201096

4. Asirit, L. B. L.; Hua, J. H.(2023) Converging perspectives: Assessing AI readiness and utilization in Philippine higher education. Polaris Glob. J. Sch. Res. Trends 2023, 2, 1–50.
5. Asmi Agarwal, A. A. (2024). Is AI the end of Human Creativity. *Journal of Advances in Science and Technology*.
6. Ayeni, O. O., Al Hamad, N. M., Chisom, O. N., Osawaru, B., & Adewusi, O. E. (2024). AI in education: A review of personalized learning and educational technology. *GSC Advanced Research and Reviews*, 18(2), 261–271. https://doi.org/10.30574/gscarr.2024.18.2.0062
7. Banerjee, P., & Bhattacharya, D. (2024). Transforming the world of education through ai-enabled learning – a new normal. *The Business and Management Review*.
8. Bolaños, F., Salatino, A., Osborne, F., & Motta, E. (2024). Artificial intelligence for literature reviews: Opportunities and challenges. *Artificial Intelligence Review, 57*, 259. https://doi.org/10.1007/s10462-024-10902-3
9. Broadbent, J. (2020). Am I Just Another Number? Using Online Education Innovations to Personalise and Improve the Student Experience in Online Learning. In: McKenzie, S., Garivaldis, F., Dyer, K.R. (eds) Tertiary Online Teaching and Learning. Springer, Singapore. https://doi.org/10.1007/978-981-15-8928-7_2
10. Choi, S., Jang, Y., & Kim, H. (2022). Influence of Pedagogical Beliefs and Perceived Trust on Teachers' Acceptance of Educational Artificial Intelligence Tools. *International Journal of Human–Computer Interaction, 39*, 910 - 922.
11. Chiu TKF, Ismailov M, Zhou X-Y, Xia Q, Au D, Chai CS. Using Self-Determination Theory to explain how community-based learning fosters student interest and identity in integrated STEM education. Int J Sci Math Educ 2023; 21:109–30. https://doi.org/10.1007/s10763-023-10382-x.
12. Chan, C. K. Y(2023). A comprehensive AI policy education framework for university teaching and learning. Int. J. Educ. Technol. High.Educ. 2023, 20, 38.
13. Chen, H. R., & Tseng, H. F. (2012). Factors that infuence acceptance of web-based e-learning systems for the in service education of junior high school teachers in Taiwan. Evaluation and Program Planning, 35(3), 398–406. https://doi.org/10.1016/j.evalprogplan.2011.11.007
14. Chetry, K. K. (2024). Transforming education: How AI is revolutionizing the learning experience. *International Journal of Research Publication and Reviews*, 5(5), 6352–6356. https://doi.org/10.55248/gengpi.5.0524.1277
15. Crompton, H.; Song, D.(2021) The Potential of Artificial Intelligence in Higher Education. Rev. Virtual Univ. Católica Norte 2021, 62, 1–4.
16. Crompton, H.; Burke, D.(2023) Artificial intelligence in higher education: The state of the field. Int. J. Educ. Technol. High. Educ. 2023, 20, 22.
17. Deep, K., & Kumar, S. (2023). NEP-2020 and technology-enabled learning: A step towards coordinating relevance and excellence in Indian higher education. International Journal of Creative Research Thoughts (IJCRT), 11(4), h161.
18. Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. Harvard Business Review, 96(1), 108–116.
19. Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly, 13(3), 319–340. https://doi.org/10.5962/bhl.title.33621
20. Dumelle, K. (2020). "Grading exams: How gradescope revealed deeper insights into our teaching". www.facultyfocus.com/articles/educational-assessment/grading-examshowgradescope-revealed-deeper-insights-into-our-teaching.Hannan, E., & Liu, S. (2021). AI: New source of competitiveness in higher education. Competitiveness Review. https://doi.org/10.1108/CR-03-2021-0045.
21. Fazlollahi, A. M., Bakhaidar, M., Alsayegh, A., Yilmaz, R., Winkler-Schwartz, A., Mirchi, N., Langleben, I., Ledwos, N., Sabbagh, A. J., Bajunaid, K., Harley, J. M., & Del Maestro, R. F. (2022). Effect of artificial intelligence tutoring vs expert instruction on learning simulated surgical skills among medical students: A Randomized clinical trial. JAMA Network Open, 5(2), Article e2149008. https://doi.org/10.1001/jamanetworkopen.2021.49008
22. Fonkam, M. M., Çela, E., & Potluri, R. M. (2024). Risks of AI-assisted learning on student critical thinking: A case study of Albania. *International Journal of Risk and Contingency Management, 12*(1), 1–19. https://doi.org/10.4018/IJRCM.350185
23. Habib, S., Vogel, T., Anli, X., & Thorne, E. (2024). How does generative artificial intelligence impact student creativity? *Journal of Creativity, 34*(1), 100072. https://doi.org/10.1016/j.yjoc.2023.100072
24. Hannan, E., & Liu, S. (2021). AI: New source of competitiveness in higher education. Competitiveness Review. https://doi.org/10.1108/CR-03-2021-0045
25. Hassan, Mohammed Salah & Abdelfattah, Fadi & Al Halbusi, Hussam & Mohammed,. (2024). Beyond the "Death of Research": Reimagining the Human-AI Collaboration in Scientific Research. Changing Societies & Personalities. 7. 31-46. 10.15826/csp.2023.7.4.250.

26. Hon, H. W. (2019). A Brief History of Intelligence. In 2019 International Conference on Multimodal Interaction (pp. 1-1). ACM.
27. Jackson, E.A., & Jackson, H.F. (2024). Enhancing Human Knowledge and Capabilities with Artificial Intelligence Tools for Education. *Educational Challenges*.
28. Jackson, P. C. (2019). Introduction to artificial intelligence. Courier Dover Publications.
29. Javvaji, V. R., & Raghavulu, P. V. (2024). The transformative impact of artificial intelligence on education. *International Journal of For Multi-disciplinary Research*, 6(4). DOI: 10.36948/ijfmr.2024.v06i04.24987
30. Jongbloed, B.; Enders, J.; Salerno, C (2008). Higher education and its communities: Interconnections, interdependencies and a research agenda. High. Educ. 2008, 56, 303–324.
31. Joyce, K., & Cruz, T. M. (2024). A Sociology of Artificial Intelligence: Inequalities, Power, and Data Justice. Socius: Sociological Research for a Dynamic World, 10, 1-6. SAGE Publications. https://doi.org/10.1177/2378023124725933
32. Keleş, Pınar Ural, and Suleyman Aydın (2021) "University Students' Perceptions About Artificial Intelligence." Shanlax International Journal of Education, vol. 9, no. S1, 2021, pp. 212–220.
33. Kim, J., Merrill, K., Xu, K., & Sellnow, D. D. (2020). My teacher is a machine: Understanding students' perceptions of AI teaching assistants in online education. International Journal of Human-Computer Interaction, 36(20), 1902–1911. https://doi.org/10.1080/10447318.2020.1801227
34. Kose, U. (Ed.). (2014). Artificial Intelligence applications in distance education. IGI Global.
35. Li, T.W., Hsu, S., Fowler, M., Zhang, Z., Zilles, C.B., & Karahalios, K. (2023). Am I Wrong, or Is the Autograder Wrong? Effects of AI Grading Mistakes on Learning. *Proceedings of the 2023 ACM Conference on International Computing Education Research - Volume 1*.
36. Liu, Y., Chen, S., Cheng, H., Yu, M., Ran, X., Mo, A., Tang, Y., & Huang, Y. (2024). How AI processing delays foster creativity: Exploring research question co-creation with an LLM-based agent. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems* (Article No. 17, pp. 1–25). Association for Computing Machinery. https://doi.org/10.1145/3613904.3642698
37. Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). Intelligence unleashed: An argument for AI in education. Pearson Education. http://oro.open.ac.uk/50104/1/Luckin%20et%20al.%20-%202016%20%20Intelligence%20Unleashed.%20An%20argument%20for%20AI%0in%20Educ.pdf
38. Lukianenko, V., & Kornieva, Z. (2024). Generative AI in student essays: English teachers' perspectives on effective assessment methods. *XLinguae, 17*(4), 14. DOI: 10.18355/XL.2024.17.04.14
39. Lukianets, Halyna & Lukianets, Tetiana. (2023). Promises and Perils of AI Use on the Tertiary Educational Level. *Grail of Science*. 306-311. 10.36074/grail-of-science.17.03.2023.053.
40. Ma, C., Lan, T., Xue, H., Xu, L., Wang, C., & Hong, Z. (2024). Reshaping the Teacher-Student Relationship in Higher Education Through ChatGPT. *Journal of Education and Educational Research*.
41. Maphosa, V.; Maphosa, M. Artificial intelligence in higher education: A bibliometric analysis and topic modeling approach. Appl.Artif. Intell. 2023, 37, 2261730.
42. McKenzie, L. (2018). Pushing the boundaries of learning with AI. www.insidehighered.com/digital-learning/article/2018/09/26/academics-push-expand-use-aihigher-edteaching-and-learning
43. Mozelius, Peter & Humble, Niklas. (2024). On the Use of Generative AI for Literature Reviews: An Exploration of Tools and Techniques. European Conference on Research Methodology for Business and Management Studies. 23. 161-168. 10.34190/ecrm.23.1.2528
44. Nabiyev, Vasif Vagifoglu. Yapay Zekâ: Problemler Yöntemler- Algoritma. Seçkin Yayıncılık, 2005
45. National Academies of Sciences, Engineering, and Medicine (2016) Building Smart communities for the future. In: Proceedings of a Workshop–in Brief. The National Academies Press, USA, Washington. https://doi.org/10.17226/23663
46. Ou, S. (2024). Transforming Education: The Evolving Role of Artificial Intelligence in The Students Academic Performance. *International Journal of Education and Humanities*.
47. Rothstein B, Uslaner EM (2005) All for all: equality, corruption, and social trust. World Polit 58(01):41–72. https://doi.org/10.1353/wp.2006.0022
48. Rouhiainen, L. (2019). How AI data could personalize higher education. Harvard Business Review, 14. October https://hbr.org/2019/10/how-ai-and-data-could-personalize-higher-education
49. Sarkar, A. (2023). Exploring perspectives on the impact of artificial intelligence on the creativity of knowledge work: Beyond mechanised plagiarism and stochastic parrots. In *Annual Symposium on Human-Computer Interaction for Work 2023 (CHIWORK 2023)*, June 13–16, 2023, Oldenburg, Germany (pp. 1–17). Association for Computing Machinery. https://doi.org/10.1145/3596671.3597650
50. Sartori, L., & Theodorou, A. (2022). A sociotechnical perspective for the future of AI: Narratives,

inequalities, and human control. Ethics and Information Technology, 24(1). https://doi.org/10.1007/s10676-022-09624-3
51. Schiff, D. Education for AI, not AI for Education: The Role of Education and Ethics in National AI Policy Strategies. Int. J. Artif.Intell. Educ. 2022, 32, 527–563.
52. Sharawy, F. S. (2023).The Use of Artificial Intelligence in Higher Education: A Study on Faculty Perspectives in Universities in Egypt [Master's Thesis, the American University in Cairo]. AUC Knowledge Fountain. https://fount.aucegypt.edu/etds/2095
53. Shishavan, H. B. (2024). AI in higher education: Guidelines on assessment design from Australian universities. *ASCILITE 2024 Conference Proceedings*. https://doi.org/10.14742/apubs.2024.1205
54. Sumakul, D. T. Y. G., Hamied, F. A., & Sukyadi, D. (2022). Students' Perceptions of the Use of AI in a Writing Class. Advances in Social Science, Education and Humanities Research, 624, 52-57. Atlantis Press. Presented at the 67th TEFLIN International Virtual Conference & the 9th ICOELT 2021 (TEFLIN ICOELT 2021).
55. Swauger, S. (2020). Our bodies encoded: Algorithmic test proctoring in higher education. In J. Stommel, C. Friend, & S. M. Morris (Eds.), Critical Digital Pedagogy. https://pressbooks.pub/cdpcollection/chapter/our-bodies-encoded-algorithmic-test-proctoring-In-higher-education/
56. Thompson EM (2016) What makes a city “smart”? Int J Arch Comput 14(4):358–371. https://doi.org/10.1177/1478077116670744
57. World Economic Forum (2018) future scenarios and implications for the industry, Report. Switzerland. Retrieved July 1, 2020, from https://www.weforum.org/reports/future-scenarios-andimplications-for-the-industry
58. Yeh, S. C., Wu, A. W., Yu, H. C., Wu, H. C.,Kuo, Y. P., & Chen, P. X. (2021). Public perception of artificial intelligence and its connections to the sustainable development goals. Sustainability, 13 (16), 9165. https://doi.org/10.3390/su13169165
59. Zawacki-Richter, O.; Marín, V.I.; Bond, M.; Gouverneur, F. Systematic review of research on artificial intelligence applications in higher education – where are the educators? Int. J. Educ. Technol. High. Educ. 2019, 16, 39.
60. Zhang, C.; Lu, Y. Study on artificial intelligence: The state of the art and future prospects. J. Ind. Inf. Integr. 2021, 23, 100224.
61. Zhang, K., & Aslan, A. B. (2021). AI technologies for education: Recent research & future directions. Computers and Education Artifcial Intelligence, 2, 100025. https://doi.org/10.1016/j.caeai.2021.100025
62. Zybaczynska, J., Norris, M., Modi, S., Brennan, J., Jhaveri, P., Craig, T. J., & Al-Shaikhly, T. (2024). Artificial Intelligence-Generated Scientific Literature: A Critical Appraisal. *The journal of allergy and clinical immunology. In practice*, *12*(1), 106–110. https://doi.org/10.1016/j.jaip.2023.10.010

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Teaching, Research and University Management in the Context of Educational Digitalization: Reflections from the Seminars between the University of Pernambuco and the Central University of Finance and Economics

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Abstract- Over the more than 50 years of diplomatic relations between Brazil and China, various political, economic, cultural, and educational initiatives have been strengthened as part of South-South cooperation. Among the institutional partnerships between the two countries, exchanges of experiences in teaching, research, and university management have brought the academic communities of the University of Pernambuco (UPE) and the Central University of Finance and Economics (CUFE) closer together. This collaboration has materialized in projects such as the Confucius Institute and the organization of thematic seminars for sharing educational ideas among the academic communities of these institutions. Using a qualitative approach, we analyzed the outcomes of the seminars hosted by UPE and CUFE, alongside the enhancement of educational digitalization. From our analysis, we observed that the use of educational methodologies and information technologies, such as distance learning and artificial intelligence, played a crucial role in addressing demands across various socio-cultural sectors in both countries.

Keywords: *education, brazil – china, digital education.*

GJHSS-G Classification: *LCC Code: LB2341, LB2341.8*

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Teaching, Research and University Management in the Context of Educational Digitalization: Reflections from the Seminars between the University of Pernambuco and the Central University of Finance and Economics

Ensino, Pesquisa e Gestão Universitária no Contexto da Digitalização Educacional: Reflexões a Partir dos Seminários entre a Universidade de Pernambuco e a *Central University of Finance and Economics*

Carlos André Silva de Moura [α] & Xu Kerou [σ]

Resumo- Em mais de 50 anos das relações diplomáticas entre o Brasil e a China, vários projetos políticos, econômicos, culturais e educacionais têm se fortalecido como parte das cooperações Sul-Sul. Entre as parcerias institucionais dos dois países, as trocas de experiências no ensino, na pesquisa e na gestão universitária têm aproximado a comunidade acadêmica da Universidade de Pernambuco (UPE) e da *Central University of Finance and Economics* (CUFE). A parceria tem se materializado em projetos como o Instituto Confúcio e os seminários temáticos realizados para o compartilhamento de ideias educacionais entre a comunidade acadêmica das instituições. A partir de uma abordagem qualitativa, analisamos os resultados dos seminários promovidos pela UPE e a CUFE, com o fortalecimento do processo da digitalização educacional. A partir das análises, visualizamos que os usos de metodologias educacionais e das tecnologias da informação, como o ensino à distância e a inteligência artificial, foram fundamentais para a solução de demandas em diferentes setores socioculturais dos dois países.

Palavras-chave: *ensino, Brasil – China, formação digital.*

Abstract- Over the more than 50 years of diplomatic relations between Brazil and China, various political, economic, cultural, and educational initiatives have been strengthened as part of South-South cooperation. Among the institutional partnerships between the two countries, exchanges of experiences in teaching, research, and university management have brought the academic communities of the University of Pernambuco (UPE) and the Central University of Finance and Economics (CUFE) closer together. This collaboration has materialized in projects such as the Confucius Institute and the organization of thematic seminars for sharing educational ideas among the academic communities of these institutions. Using a qualitative approach, we analyzed the outcomes of the seminars hosted by UPE and CUFE, alongside the enhancement of educational digitalization. From our analysis, we observed that the use of educational methodologies and information technologies, such as distance learning and artificial intelligence, played a crucial role in addressing demands across various socio-cultural sectors in both countries.

Keywords: *education, Brazil – China, digital education.*

I. Introdução

As parcerias no setor de Ciência, Tecnologia e Inovação entre Brasil e China foram fortalecidos a partir da década de 1980, especialmente com a execução do Acordo de Cooperação Científica e Tecnológica a partir de 1984. Desde o período, os dois países têm apresentado transformações no cenário internacional, a exemplo da "ascens ão chinesa como a segunda maior potência econômica do mundo e com elevação contínua do produto interno bruto (PIB) […]" e o crescimento da encomia brasileira. Entre os acordos realizados, pode-se citar o desenvolvimento de projetos em áreas como energias renováveis, saúde, logística e tecnologia da informação, sustentabilidade, esportes, turismo e cultura, agricultura e educação (Dantas, 2023, p. 259, 272).

Como parte da cooperação internacional, a Universidade de Pernambuco (UPE), em parceria com a *Central University of Finance and Economics* (CUFE) de Pequim, sediou um Instituto Confúcio que teve sua inauguração em 2013, fruto das ações afirmativas que se multiplicam na perspectiva de ampliar o acesso ao conhecimento, a partir da implantação de uma política de internacionalização das ações universitárias que buscam oportunizar o encontro entre culturas nacionais e estrangeiras (Ribeiro *et al.*, 2024). Nos seus 11 anos de funcionamento, as duas universidades ampliaram não apenas os projetos que visam intercâmbio de língua e cultura, mas também os projetos relacionados à pesquisa, extensão e inovação.

No Brasil, as atividades dos institutos tiveram início com a inauguração de uma sede na Universidade Estadual Paulista, em 26 de novembro de 2008. Desde

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então, o projeto tem se multiplicado em diversas instituições de ensino. Para as universidades participantes, a ação é uma forma de internacionalização pelo modelo adotado, que conecta universidades nacionais e internacionais, com redes colaborativas que sustentam a expansão dos programas (Kerou; Nascimento, 2024).

Desde 2018, a partir da organização do Instituto Confúcio, realizam-se anualmente seminários que reúnem as equipes de instituições de ensino superior do Brasil e da China, com a participação de representantes de órgãos públicos, entidades privadas e diplomatas. Os participantes dos eventos dialogam sobre as tendências atuais relacionadas ao desenvolvimento econômico, social e sustentável de ambos os países, com debates que buscam ampliar as parcerias entre as instituições de ensino superior (Lapsky; Kerou, 2024).

Em 11 de novembro de 2024, na ocasião da visita de gestores da Universidade de Pernambuco à China, realizou-se na CUFE a nova edição do seminário intitulado: "Gestão Universitária no Contexto da Digitalização da Educação". O encontro teve o objetivo de trocar experiências sobre a administração universitária no cenário internacional, com debates sobre a organização das instituições de ensino superior nos dois países, financiamento público e relações internacionais. Participaram do evento reitores, gestores, docentes e estudantes das duas universidades, professores e egressos do Instituto Confúcio da UPE (UPE, 2024).

Fonte: Diretoria de Comunicação da Universidade de Pernambuco.

Debates durante o Seminário "Gestão Universitária no Contexto da Digitalização da Educação, 2024.

O uso de novas tecnologias e ferramentas digitais tem se tornado cada vez mais essenciais no ensino superior, especialmente no contexto pós-pandemia de Covid-19. A rápida transformação digital e as constantes inovações tecnológicas demandam uma educação e qualificação profissional que preparem talentos capazes de atender às exigências socio-econômicas. Desde a última edição do seminário no Brasil, realizada em 7 de dezembro de 2023 pela UPE, com o retorno dos intercâmbios presenciais após a pandemia, as duas universidades intensificaram o diálogo sobre temas como o ensino, a pesquisa e a gestão universitária no contexto da transformação digital. Durante o evento, a mesa-redonda intitulada "Pesquisa científica no Brasil no contexto da inteligência artificial" demonstrou a capacidade das instituições de ensino atuarem em conjunto com o poder público e setor privado para o desenvolvimento econômico e social.

A pandemia de coronavírus SARS-Cov2 interrompeu as atividades presenciais de 91% dos estudantes em todo o mundo (UNESCO, 2020). O longo período de distanciamento social impôs uma nova realidade às Instituições de Ensino Superior (IES), com a necessidade das universidades, departamentos e cursos se adequarem para minimizar os danos pedagógicos, garantindo a manutenção de uma educação de qualidade e segura. Para isso, foram realizados diferentes ajustes nos planos de desenvolvimento institucional, nos projetos pedagógicos e no gerenciamento das instituições (Gusso, 2020).

Especificamente no Brasil, as universidades precisaram se reinventar, com organização acadêmica, tecnológica e financeira, com o objetivo de promover a inclusão dos estudantes, técnicos-administrativos e docentes em uma nova realidade socioeducacional. Do mesmo modo, tornou-se necessária a inclusão digital,

especialmente para aqueles que não dominavam o uso das tecnologias ou não possuíam recursos financeiros para a manutenção das atividades acadêmicas.

A reestruturação acadêmica durante o período pandêmico possibilitou o desenvolvimento de iniciativas para a digitalização educacional, a partir do ensino remoto emergencial, que possibilitou a oferta educacional em um momento de distanciamento social. A participação dos diferentes atores sociais neste processo foi possível a partir das políticas de inclusão digital gerenciadas pelas universidades, em respostas a demandas sociais específicas e a falta de apoio do governo federal do Brasil (Calil, 2021).

No contexto da China, a experiência foi semelhante. Nesse processo involuntário de reinvenção, plataformas e suas tecnologias, o ensino *online* e híbrido, o uso de ferramentas digitais e a disponibilização de recursos de aprendizagem, que antes eram alternativas, tornaram-se obrigatórios e massificados. No entanto, a verdadeira lição está em não simplesmente retornar à normalidade pré-pandemia, mas em aproveitar conscientemente este "dividendo da pandemia". Isso significa institucionalizar e aprofundar essas inovações forçadas, transformando-as em alicerces para uma reforma educacional sistemática (Yang, 2020).

A digitalização de fato trouxe soluções e inovações cruciais, mas simultaneamente expôs e exacerbou desafios pré-existentes, como a desigualdade digital, a dependência excessiva de dispositivos e a urgente necessidade de repensar a avaliação da qualidade do ensino e da aprendizagem na nova realidade. O objetivo final é canalizar esse momento para construir um sistema educacional mais resiliente, inclusivo e de qualidade para o futuro (Ge, 2023).

II. Material e Métodos

O artigo tem como base o método qualitativo da análise de conteúdo, que se compõe de três grandes etapas: 1) a pré-análise; 2) a exploração do material e 3) o tratamento dos resultados e interpretação (Bardin, 1977). Nos últimos anos tem se percebido que, nas pesquisas sobre educação, estas abordagens têm sido privilegiadas, pois possibilitam a compreensão de fenômenos que envolvem a complexidade das ações educativas. Segundo Paulo Roberto Valle e Jacques Lima, "a multiplicidade de temas/objetos de estudo que emergem na e da escola e do sistema educacional tem privilegiado estudos exploratórios e descritivos como forma de analisar e compreender as questões em seu entorno" (Valle; Ferreira, 2025).

Os autores deste artigo, vinculados à UPE e à CUFE, participaram dos dois últimos seminários e, na primeira etapa, fizeram a análise dos discursos, das apresentações, publicações jornalísticas, vídeo gerados pelos seminários de 2023 (realizado na UPE) e de 2024 (realizado na CUFE), além dos documentos institucionais. Na segunda etapa os dados analisados foram codificados a partir das unidades de registro identificadas. Na última fase, realizou-se a categorização, que consistiu na classificação dos elementos com base em suas semelhanças e diferenças, seguida de um reagrupamento de acordo com características comuns (Caregnato; Mutti, 2006).

Durante o artigo, também foram apresentadas discussões a partir do método comparativo, com demonstração das aproximações sobre aspectos da educação, ciência, tecnologia e inovação entre o Brasil e a China. O levantamento teve como base as ações desenvolvidas na Universidade de Pernambuco e na *Central University of Finance and Economics,* com ênfase nos projetos que tenham como proposta os usos das tecnologias digitais.

Os resultados apresentados durante este artigo foram orientados por duas questões principais: 1) Quais são as práticas inovadoras no ensino e na pesquisa em resposta à transformação digital? 2) Como se caracteriza a gestão universitária no contexto da digitalização educacional? A análise abordou elementos relacionados ao contexto institucional, ao ensino, a pesquisa, a comunicação e a internacionalização, tendo como principal espaço de análise o cenário socio-educacional no Brasil e na China.

III. Apresentação dos Resultados

A Universidade de Pernambuco é uma instituição pública, inserida na estrutura do Governo do Estado de Pernambuco, criada em 25 de novembro de 1965 a partir da Lei Estadual nº 5.736 (Gomes; Moura; Valença; Santos; Araújo, 2024). A UPE é considerada a melhor instituição estadual das regiões Nordeste, Norte e Centro-Oeste, além da 6º do Brasil no ranking *Web of Universities – 2023* (UPE, 2024a), com a oferta de 66 cursos de graduação e 44 cursos de pós-graduação, sendo 28 mestrados e 16 doutorados. Do mesmo modo, são oferecidos 103 cursos de especialização e 71 residências nas áreas de saúde e tecnologia.

Em 2025 a UPE conta com 16 polos de Educação a Distância (EaD), localizados em todas as regiões do Estado de Pernambuco, com cursos nas áreas de educação e ciências sociais aplicadas. A oferta contribui com a formação de profissionais que podem atuar em diferentes localidades do Brasil. Em 2023 a Diretoria de Educação a Distância, em parceria com a Coordenação de Aperfeiçoamento de Pessoal de Nível Superior, ofertou a pós-graduação *lato sensu* em Gestão Escolar, pioneira no Brasil, com o objetivo de formar gestores educacionais em diferentes localidades.

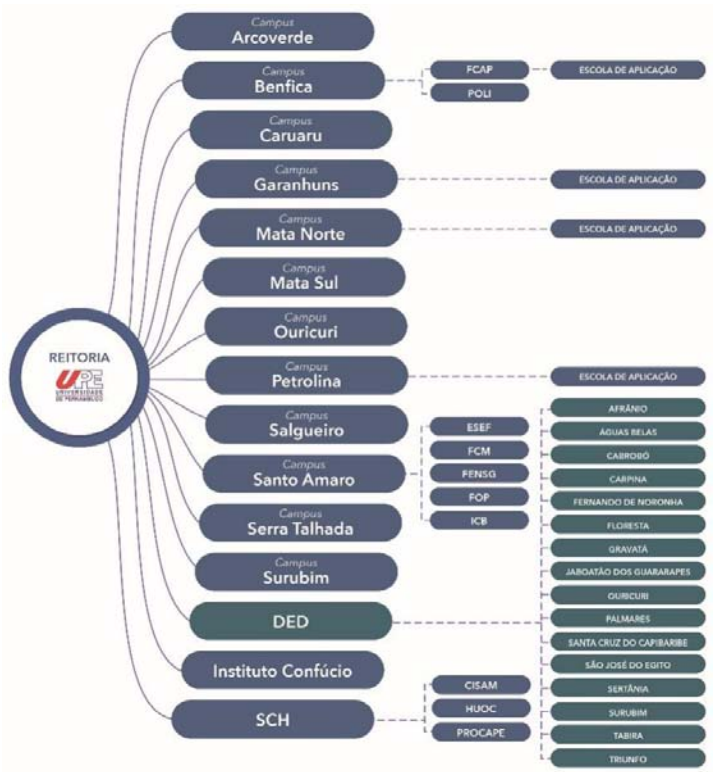
A execução do projeto de especialização em gestão escolar foi realizada a partir do meio digital, com a formação de gestores da educação básica, com destaque para a reinserção dos profissionais em sala de aula. Com oferta através da Universidade Aberta do Brasil, programa articulador entre o governo federal e os entes federativos, o curso teve o objetivo de proporcionar a formação continuada aos profissionais, mediante conhecimentos pertinentes ao campo da gestão escolar. As atividades pedagógicas foram executadas através dos Ambientes Virtuais de Aprendizagem, com possibilidade de acesso de qualquer localidade.

Atualmente a Universidade de Pernambuco possui 2.154 estudantes matriculados em seis cursos na modalidade da Educação a Distância: Bacharelado em Administração, Licenciaturas em Biologia, Ciências da Computação, História, Letras e Pedagogia. A instituição também dispõe de 750 matriculados em cursos *lato sensu* à distância, nas áreas de Desenvolvimento Sustentável para Educação Básica, Educação Especial Inclusiva, Ensino da Língua Portuguesa e suas Literaturas, Gestão em Saúde e Gestão Escolar.

O professor Renato Moraes, Diretor de Educação a Distância da UPE, destaca a importância da digitalização educacional para a inclusão social dos estudantes e profissionais. Para o docente a oferta da formação é um:

> […] direto de você ter a oportunidade. Nós temos os direitos e os deveres, mas se eu não tenho a oportunidade o meu direito se acaba. Então a universidade está te oferecendo a oportunidade de ter o direito de fazer um curso superior. Com isso, a universidade chega com cursos como o de pedagogia, pela necessidade do mercado, dos 600 alunos, 590 concluíram […]. Nos cursos temos aquela dona de casa que no presencial não tinha condições de fazer, de se locomover até o campus. A educação a distância protagoniza isso. […] Fico encantado quando vou ao polo e tem aquela pessoa, já com 60 e poucos anos, 4 filhos, com o marido há mais de 40 anos, mas agora no curso superior […] (Moraes, 2022).

Com a oferta de diferentes cursos à distância, a UPE conseguiu ampliar as suas atividades para além das unidades presenciais, com projetos que conseguem incluir estudantes de diferentes camadas sociais, idades e localização geográfica. Do mesmo modo, torna-se possível o diálogo entre os docentes de campi distintos, uma vez que os membros dos cursos podem ser constituídos por integrantes de várias unidades. A partir da imagem abaixo, conseguimos visualizar a organização da UPE em diferentes cidades, com as unidades de educação e educação e saúde, além das suas escolas de aplicação que são destinas aos estudantes da educação básica, e os institutos de ensino e tecnologia.

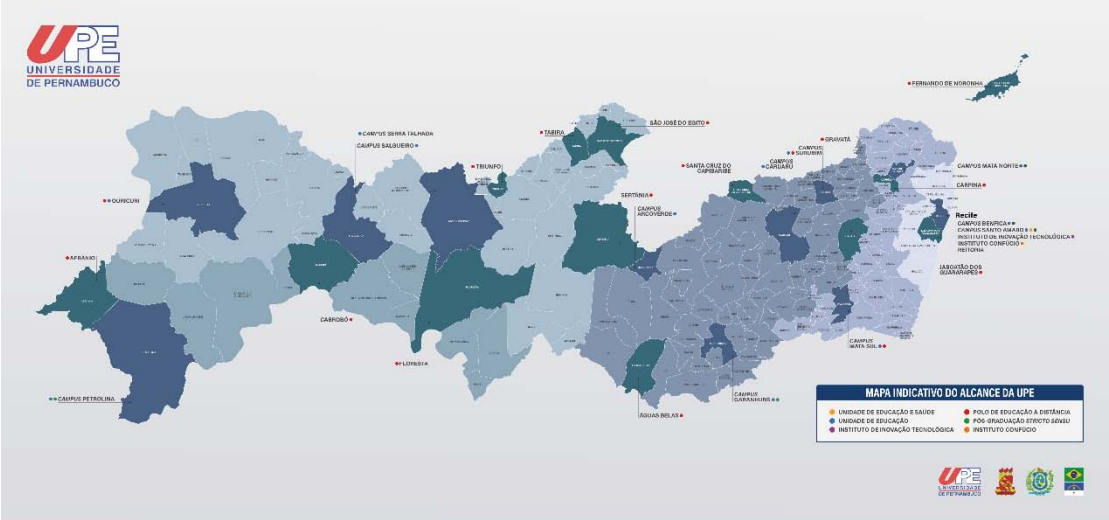


Fonte: Universidade de Pernambuco.

Municípios onde a UPE está presente com unidades de educação presenciais e polos de Educação a Distância.

A capilaridade da Universidade de Pernambuco, presente em todas as regiões administrativas do Estado, possibilita que a oferta de cursos superiores a partir da digitalização educacional atende estudantes das regiões geograficamente distantes dos principais centros urbanos. Do mesmo modo, tornou-se possível a ampliação das atividades acadêmicas para cidades fora de Pernambuco, com a possibilidade da organização dos discentes em horários flexíveis, conciliando com outras atividades.

No mapa abaixo é possível compreender a distribuição das unidades de educação e educação e saúde da UPE, com destaques aos polos de educação à distância. Em azul as unidades presenciais, com diferentes cursos nas grandes áreas do conhecimento, e em verde as unidades à distância, com foco em formação de professores e administração pública.



Fonte: Universidade de Pernambuco.

Mapa Indicativo de Alcance da Universidade de Pernambuco.

Entre 2024 e 2025, com a compreensão dos desafias da educação e a formação de novos profissionais, o Governo Federal, através do Ministério da Educação, e o Governo do Estado de Pernambuco, através da Secretaria da Criança e da Juventude e da Secretaria de Ciência, Tecnologia e Inovação solicitaram da Universidade de Pernambuco a oferta de novos cursos, a partir dos meios digitais. Com isso, foram disponibilizadas estrutura física e a comunidade acadêmica com o objetivo de atender as demandas sociais apresentadas no âmbito estadual e federal.

Através de convênio com o Ministério da Educação, a Universidade de Pernambuco ofereceu os Cursos de Extensão, Formação para Docência e Gestão para a Educação das Relações Étnico-Raciais e Quilombolas. As propostas estiveram alinhadas à Política Nacional de Equidade, Educação para as Relações Étnico-Raciais e Educação Escolar Quilombola, com o objetivo de consolidar a formação continuada à distância para docência e gestão da educação básica.

Em âmbito estadual, com o objetivo de colaborar com a formação dos gestores educacionais, o Governo do Estado de Pernambuco, em parceria com a Universidade de Pernambuco, ofereceu a Residência Intersetorial em Primeira Infância. A oferta do curso, em formato digital, posiciona Pernambuco como referência nacional em formação para a Primeira Infância. Com o trabalho, os profissionais passaram a atuar de modo coordenado e estratégico em diferentes municípios de Pernambuco. O pioneirismo e sucesso das atividades possibilitaram a abertura de nova turma em 2025, com grande procura dos profissionais interessados na inserção de uma nova formação acadêmica, especialmente a partir da digitalização educacional (Pernambuco, 2025, p. 04; UPE, 2025).

Além da formação de professores e gestores educacionais, o processo de digitalização educacional colaborou com a atuação da Universidade de Pernambuco no setor privado. Para isso, foram oferecidos cursos a partir das residências tecnológicas, com o objetivo de atender demandas específicas de formação de funcionários, otimizar a produção, responsabilidade ambiental e melhoria na relação com a sociedade. As atividades foram executadas em indústrias automobilísticas, produção de vidros e alimentos, com uso da inteligência artificial para a organização das atividades produtivas e educacionais.

Do mesmo modo, em parceria com o poder público, foi possível colaborar com ações voltadas para a eficiência dos serviços públicos, a sustentabilidade e a produção agropecuária. Todos os trabalhos foram

desenvolvidos pela comunidade acadêmica, com uso da inteligência artificial, a partir da elaboração de aplicativos de baixo custo que têm o objetivo de acompanhar o desenvolvimento de ações que buscam otimizar os serviços ofertados.

Em uma iniciativa que envolveu diferentes faculdades, a partir de um projeto que utiliza Inteligência Artificial para apoiar profissionais de saúde em atendimentos por teleconsulta no Centro Universitário Integrado de Saúde Amaury de Medeiros (CISAM), unidade hospitalar destinada à saúde das mulheres, crianças e pessoas com útero. A iniciativa fez parte do Programa de Formação Tecnologias 4.0: IA Soluções CISAM, oferecido na forma de curso de extensão, com a integração de docentes e discentes da Escola Politécnica de Pernambuco, Faculdade de Enfermagem Nossa Senhora das Graças e dos Campi Surubim e Garanhuns.

O programa contou com quatro módulos: Ciência de Dados e Analytics, Inteligência Artificial, Engenharia de Software na Indústria 4.0 e Tecnologias NUTES/CISAM. O objetivo foi desenvolver uma solução de IA generativa voltada ao pré-diagnóstico clínico, capaz de analisar informações de prontuários médicos anonimizados, associadas às queixas e exames das pacientes, de modo a auxiliar na tomada de decisão durante as consultas a distância. Entre os produtos entregues estão um *dashboard*, para interpretação rápida de métricas estratégicas, uma interface para armazenamento e visualização de exames e um modelo de IA generativa treinado especificamente para apoiar a tomada de decisões clínicas.

As atividades educacionais que envolvem a digitalização também estão presentes nos projetos de extensão desenvolvidos pela comunidade acadêmica da UPE. O letramento digital, organizado em conjunto com o Ministério dos Direitos Humanos e da Cidadania, tem o objetivo de orientar idosos para o uso, o entendimento e a interação criticamente com as tecnologias. As atividades buscam orientar os participantes com habilidades para ler e escrever em ambientes digitais, avaliar conteúdos *online*, realizar atividades cotidianas, como compras em *sites* e aplicativos, transações bancárias e comunicação, como forma de integração nas atividades com celulares e computadores (Carvalho, 2024).

A execução das atividades foram promovidas em diferentes cidades de Pernambuco, com distintas realidades socioeconômicas, contribuindo para a ampliação do convênio para o Instituto Federal do Piauí e a Prefeitura da Cidade do Recife. Na imagem abaixo, os estudantes são orientados por bolsistas extensionistas, discentes ou docentes da UPE, que trabalham em ações para a formação dos idosos para usos dos equipamentos tecnológicos. Parte dos equipamentos são fornecidos pela UPE, como uma forma de inclusão educacional, social e cidadania.

Fonte: Universidade de Pernambuco.

Aula do projeto de extensão letramento digital.

A *Central University of Finance and Economics* é uma instituição de ensino superior público, fundada em 1949, sob a liderança direta do Ministério da Educação da China. Ela é listada nos projetos 211, 985 e de

"Dupla Primeira Classe"[1] e possui 24 faculdades, 54 cursos de graduação e vários programas de pós-graduação, formando um sistema acadêmico caracterizado pelas áreas de Economia, Administração e Direito, com uma integração interdisciplinar e desenvolvimento coordenando outras áreas como Literatura, Ciências, Engenharia, Educação e Filosofia. A instituição é uma das 100 universidades e faculdades que o governo chinês considera prioritárias no século XXI (CUFE, 2025).

Fonte: Central University of Finance and Economics

CUFE em números

Para a comunidade acadêmica da CUFE, a inteligência artificial (IA) tem um papel fundamental na promoção de novos paradigmas, cenários e métodos no ensino superior. No campo da educação em economia e finanças, a IA oferece diversas vantagens, como: 1) Melhoria da qualidade do ensino e da pesquisa científica, com a criação de planos de aprendizagem personalizados e continuamente otimizados; análise de dados para identificação de padrões e tendências emergentes; 2) Ajuste à construção disciplinar e aos objetivos de formação de talentos na transformação digital, ampliando o acesso aos recursos educacionais, promovendo a avaliação e aprimoramento desses recursos e elevando a eficácia na alocação de recursos educacionais; 3) Interconexão global no ensino superior, acelerando o compartilhamento de recursos educacionais diversos e de alta qualidade. Contudo, é fundamental também considerar os riscos associados ao uso inadequado da IA: 1) Aumento do custo de acessibilidade ao ensino superior; 2) Riscos relacionados a informações imprecisas ou dados incorretos, além de problemas de transparência; 3) Dependência excessiva das tecnologias de inteligência artificial. Ao explorar os benefícios da IA é essencial minimizar suas limitações e impactos negativos sempre que possível.

Para se adaptar à transformação digital e à IA, torna-se necessário adotar uma filosofia de formação de talentos que tenha como base a inovação do conhecimento e as demandas sociais, levando em conta as características dos estudantes atuais, os chamados "nativos digitais", proficientes na aplicação de tecnologias e com maior compreensão da IA. A CUFE, atenta a essas mudanças, tem se empenhado em promover a capacidade de aprendizado sustentável, além de incentivar o interesse e a motivação acadêmica dos estudantes, garantindo que a formação de talentos atenda às demandas estratégicas nacionais e regionais. Na prática, a instituição impulsiona a integração interdisciplinar e otimiza a estrutura curricular, adotando nova abordagem de fusão entre os componentes curriculares tradicionais e a IA.

No campo da pesquisa, a CUFE busca atender às necessidades de desenvolvimento da indústria, promovendo a integração entre a ciência, a educação e o setor produtivo. As principais medidas incluem: 1) Incorporar pesquisa de alta qualidade em todas as etapas do processo de formação de talentos, com a oferta de suporte robusto para a inovação teórica e resolução de problemas; 2) Estabelecer plataformas de cooperação entre faculdades e empresas para o ensino experimental e a pesquisa, além de criar bases práticas para a colaboração entre a academia e a indústria, expandindo os limites do ambiente educacional inteligente.

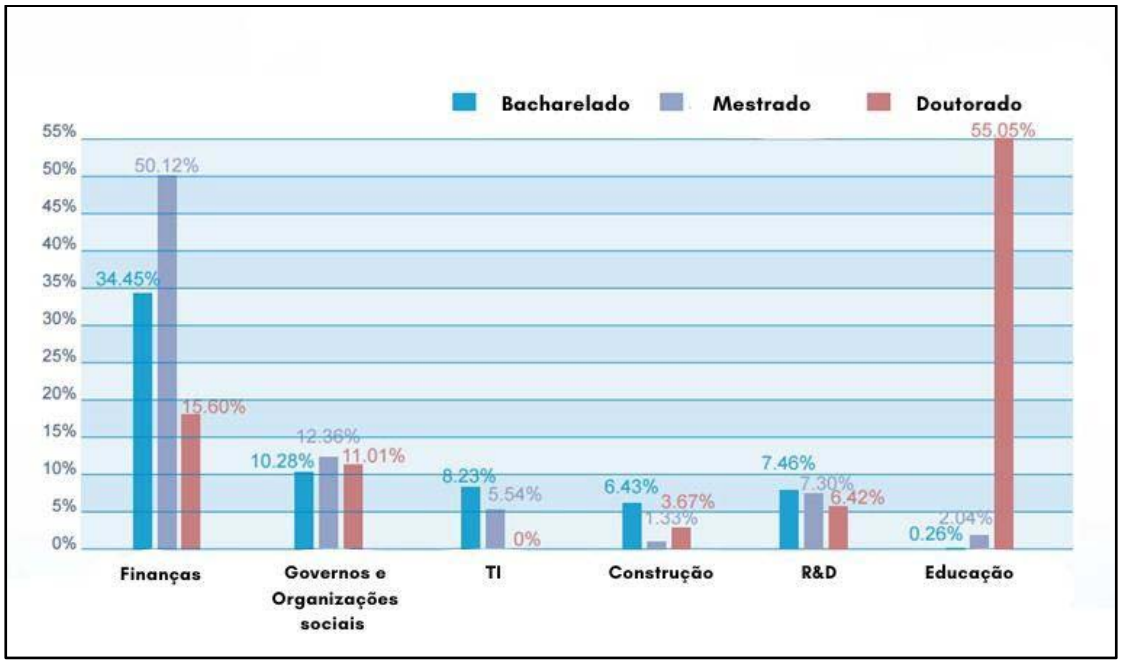
[1] 211, 985 e Dupla Primeira Classe são nomes atribuídos aos projetos nacionais que visam o aprimoramento qualitativo das instituições de ensino superior chinesas, lançados em diferentes fases e que destinam uma quantidade substancial de recursos às instituições selecionadas.

Fonte: Central University of Finance and Economics

Posição da CUFE nos *Rankings* que elencam as melhores universidades no mundo por disciplinas

O crescimento da economia digital na China, entre 2016 e 2021, foi notável. Aproximadamente 200 milhões de empregos foram gerados por esse setor, o que representa cerca de 25% do total de empregos no país (Caict, 2022). A economia digital deu origem a novos formatos de negócios e profissões, enquanto a tecnologia de inteligência artificial acelerou seu desenvolvimento, transformando a lógica da produção de conhecimento humano (Caict, 2019). Em resposta a essas mudanças, reformas foram implementadas no curso de Economia da CUFE, com o objetivo de refletir a economia digital tanto no contexto global quanto nacional, consolidar os fundamentos teóricos e estimular o pensamento crítico e inovador.

No caso do curso de graduação em Economia, o ensino é estruturado em pequenas turmas, com 10 a 15 estudantes, permitindo uma abordagem personalizada, em que cada matriculado é tratado como um caso único. Os componentes curriculares essenciais incluem: Fundamentos de Análise de *Big Data* com *Python*, Estatísticas Multivariadas e Mineração de Dados, Economia Digital, Aprendizado de Máquina, Processamento de Linguagem Natural, Aplicações de *Big Data* em Problemas Econômicos, Inteligência Artificial, *Deep Learning*, Visualização de Dados, *Blockchain* e Moeda Digital, Computação em Nuvem e Tecnologias de *Big Data*, e Introdução às Finanças na Internet. Além dos debates em sala de aula, a CUFE convida professores, pesquisadores e profissionais de destaque, tanto nacionais quanto internacionais, para ministrar palestras, *workshops* e orientar projetos de pesquisa. Também organiza visitas e estágios para os alunos em empresas e setores relevantes.



Fonte: Central University of Finance and Economics

A inserção dos graduados da CUFE no mercado de trabalho por setores

A China promove ativamente o desenvolvimento da digitalização educacional. Durante a Conferência Mundial de Educação Digital de 2024, o Ministro da Educação, Huai Jinpeng, enfatizou que a estratégia de digitalização da educação no país deve evoluir do modelo dos "3C" – Conexão como prioridade, Conteúdo como essência e Cooperação como chave – para o modelo dos "3I" – Integração, Inteligência e Internacionalização (Moe, 2024).

A primeira etapa da digitalização na educação é fundamentada na construção de plataformas digitais capazes de conectar ensino, pesquisa, extensão, gestão e as pessoas envolvidas – professores, estudantes, gestores, entre outros *(Conexão)*. As plataformas permitem o compartilhamento de uma ampla variedade de recursos educacionais *(Conteúdo),* promovendo a democratização do conhecimento por meio da participação integrada do governo, instituições acadêmicas, empresas, indústrias e outros setores *(Cooperação).*

Quanto aos "3I", *Integração* consiste em melhorar a interoperabilidade entre plataformas digitais, expandir a troca de dados entre diferentes aplicações e integrar grandes volumes de dados multiorigem e heterogêneos. O objetivo é construir sistemas integrados de recursos, catálogos, dados e aplicações. *Inteligência* refere-se à incorporação profunda da tecnologia inteligente em todos os elementos, processos e operações do sistema educacional, incluindo o desenvolvimento de soluções inteligentes para ensino, aprendizado, gestão, avaliação e pesquisa. *Internacionalização* representa o aprofundamento da cooperação internacional em educação digital. Isso inclui o fortalecimento da compatibilidade, conectividade e aprendizado mútuo entre nações, além da criação de consensos globais e padrões comuns para o avanço da digitalização educacional (Yang, 2024).

Uma das iniciativas da CUFE nesse contexto é a criação de uma plataforma integrada que abrange todo o ciclo de vida estudantil. Por meio dela, os estudantes têm acesso ao ensino virtual, a recursos de estudo, a serviços pedagógicos, a processos administrativos, entre outras possibilidades. Além de oferecer esses serviços, a plataforma monitora e captura grandes volumes de dados relacionados ao processo de ensino e aprendizagem, incluindo atividades de extensão. Os dados são analisados e minerados para construir perfis digitais detalhados dos estudantes, representando com precisão seus estilos de aprendizado, características comportamentais, preferências, interesses e necessidades educacionais.

Com o uso de algoritmos avançados e inteligência artificial, torna-se possível promover o aprendizado personalizado e adaptativo, fundamentado em dados. A abordagem tem o objetivo de fortalecer a base científica para a tomada de decisões educacionais, incentivar a personalização do aprendizado e alcançar diagnósticos e planejamentos mais precisos nos processos de ensino e aprendizagem (Zhang, 2022).

A comunicação e as novas mídias se tornaram elementos indispensáveis na gestão universitária. No contexto das universidades chinesas, o setor de comunicação vai além de ser um simples veículo de notícias: ele também desempenha um papel crucial na

preservação da história, na consolidação da identidade institucional e na inovação do diálogo com seu público. Um marco importante foi a inauguração do novo Museu da História da CUFE em 2024. Os acervos coletados e enriquecidos oferecem uma visão detalhada da trajetória da universidade, destacando seu compromisso contínuo com o desenvolvimento socio-econômico do país. Paralelamente, a CUFE tem utilizado novas mídias e produzido vídeos curtos e microfilmes para estabelecer uma conexão mais engajada com seu público, ampliando o alcance e o impacto das mensagens e conhecimentos transmitidos. Histórias inspiradoras de professores e estudantes têm sido amplamente divulgadas, criando um ambiente que valoriza a formação, promove o bem e estimula a inspiração mútua. A abordagem não apenas fortalece o espírito comunitário, mas também se transforma em uma fonte poderosa de motivação e energia para impulsionar o desenvolvimento de alta qualidade da universidade.

Sob a orientação do objetivo estratégico da CUFE, tornar-se uma universidade de classe mundial com características distintivas, a instituição tem avançado significativamente na promoção da internacionalização. A CUFE liderou a criação da *Alliance for Economics and Management Education* e firmou parcerias com mais de 200 universidades, organizações internacionais e empresas multinacionais. Anualmente cerca de 400 estudantes participam de programas de intercâmbio acadêmico por meio de projetos interuniversitários e programas nacionais, enquanto 200 professores viajam ao exterior para participar de conferências internacionais e desenvolver atividades acadêmicas e de pesquisa. Além disso, aproximadamente 450 estudantes internacionais escolhem a CUFE para programas de estudo e pesquisa. A CUFE também mantém programas de cooperação educacional com universidades de países como Estados Unidos, Austrália, Holanda, Brasil e Grécia. Essas iniciativas incluem programas conjuntos de graduação, mestrado e doutorado, além de parcerias estratégicas com o Instituto Confúcio, fortalecendo sua presença global e promovendo o intercâmbio cultural e acadêmico em escala internacional.

IV. Considerações Finais

Em mais de 50 anos das relações diplomáticas entre o Brasil e a China, nota-se que nas últimas décadas as parcerias têm se intensificado, especialmente nas trocas de experiências relacionadas aos projetos sobre a educação, o compartilhamento de tecnologias e atividades econômicas em diferentes áreas produtivas. Para dirigentes dos dois países, o relacionamento bilateral é fundamental para a cooperação Sul-Sul, a exemplo dos avanços em parcerias promovidas pelos BRICS e o G-20 (Brasil, 2024).

A ampliação das parcerias sino-brasileira, especialmente nas áreas de educação, Ciência, Tecnologia e Inovação (CTI), tem se justificado por o Brasil ser um parceiro estratégico na América Latina, com possibilidades do fortalecimento de outras áreas, como as relações comerciais e os investimentos em infraestrutura. Do mesmo modo, os acordos são fundamentais para a ampliação das relações Sul-Sul, com distintas possiblidades de acordos bilaterais com nações parceiras e integrantes de blocos econômicos específicos (Dantas, 2023, p. 278).

As cooperações internacionais entre os dois países também se refletem em projetos educacionais, a exemplo das ações traçadas entre a Universidade de Pernambuco e a *Central University of Finance and Economics,* como o estabelecimento do Instituto Confúcio, o envio de estudantes para a China e para o Brasil, e a troca de conhecimento entre os gestores das duas instituições. A realização dos seminários temáticas, especialmente os promovidos em 2023 e 2024, foram fundamentais para o compartilhamento de experiências direcionadas à digitalização na educação, com projetos que têm como foco a oferta de atividades educacionais à distância e os diferentes usos da inteligência artificial, com impactos no ensino, na pesquisa e na inovação.

Com o artigo foi possível perceber como a utilização das tecnologias da informação oferece elementos que podem atender demandas da sociedade, do poder público e do setor privado. Do mesmo modo, tornam-se efetivas as práticas de sustentabilidade, com responsabilidade e compromisso social, exigências de pactos internacionais para o futuro.

Em expectativas econômicas e políticas, as parcerias entre as instituições do Brasil e da China tendem a se fortalecer nas próximas décadas. Com isso, visualizamos que no setor da educação os desafios do tempo presente buscam ampliar as aproximações entre as nações. Neste sentido, concluímos que os projetos protagonizados pela Universidade de Pernambuco e a *Central University of Finance and Economics* estão conectados com as perspectivas sociopolíticas do cenário internacional, a partir do fortalecimento dos projetos direcionados à promoção da educação e da cultura entre os dois países.

References Références Referencias

1. Brasil. *50 anos de relações diplomáticas Brasil-China:* celebrando o passado e lançando as bases do futuro. Brasília, 15 ago. 2024. Disponível em: https://www.gov.br/planalto/pt-br/acompanhe-o-planalto/artigos/50-anos-de-relacoes-diplomaticas-bra

sil-china-celebrando-o-passado-e-lancando-as-bases-do-futuro. Acesso em: 10 ago. 2025.
2. CAICT. 中国数字经济发展与就业白皮书（2019 年). [*S.l.: s. n.*], 2019. Disponível em: https://www.caict.cac.cn/kxyj/qwfb/bps/201904/P020190417344468720243.pdf. Acesso em: 20 set. 2025.
3. CAICT. 中国数字经济发展报告（2022年）. [*S.l.: s. n.*], 2022. Disponível em: https://www.caict.ac.cn/kxyj/qwfb/bps/202207/P020220729609949023295.pdf. Acesso em: 20 set. 2025.
4. Calil, Gilberto Grassi. A negação da pandemia: reflexões sobre a estratégia bolsonarista. *Serviço Social e Sociedade,* São Paulo, n. 140, p. 30-47, jan./abr. 2021. Disponível em: https://www.scielo.br/j/sssoc/a/ZPF6DGX5n4xhfJNTypm87qS/?format=html&lang=pt. Acesso em: 18 ago. 2025.
5. Carvalho, Odair *et. al. Eu nem pegava no celular:* relatos de experiências extensionistas para inclusão digital. Rio de Janeiro: Autografia, 2024.
6. CUFE. *Overview.* [*S. l.*], 2025. Disponível em: https://www.cufe.edu.cn/xxgk/xxjj.htm. Acesso em: 20 set. 2025.
7. GE, D. 后疫情时代高等教育发展的挑战与应对_ 葛道凯. 中国高教研究, [*s. l.*], 2023. Disponível em: Acesso em: 20 set. 2025.
8. Dantas, Aline Chianca. Cooperação Sul-Sul entre Brasil e China: uma análise das iniciativas em Ciência, Tecnologia e Inovação. *Revista Tempo do Mundo,* n. 31, p. 257-283, 30 abr. 2023. Disponível em: https://www.ipea.gov.br/revistas/index.php/rtm/article/view/435. Acesso em: 28 set. 2025.
9. Gomes, Betânia da Mata Ribeiro; Moura, Carlos André Silva de; Valença, Mariana Rabêlo; Santos, Mário Ribeiro dos; Araújo, Sandra Simone Moraes de. *Universidade de Pernambuco:* histórias, espacialidades, memórias e outras narrativas. Recife: EDUPE, 2024.
10. Gusso, Hélder Lima *et. al*. Ensino superior em tempos de pandemia: diretrizes à gestão universitária. *Educação e Sociedade,* Campinas, v. 41, 2020. Disponível em: https://www.scielo.br/j/es/a/8yWPh7tSfp4rwtcs4YTxtfr/?format=pdf&lang=pt. Acesso em: 14 maio. 2025.
11. Kerou, Xu; Nascimento, Ademir Macedo. Cooperação Internacional Educacional entre o Brasil e a China a partir dos Institutos Confúcio. *Revista Internacional de Educação Superior,* Campinas, v. 12, n. 00, p. e026008, 2024. Disponível em: https://periodicos.sbu.unicamp.br/ojs/index.php/riesup/article/view/8676216. Acesso em: 17 set. 2025.
12. LAPSKY, I.; KEROU, X. Analisando os 10 anos do Instituto Confúcio (IC) na Universidade de Pernambuco (UPE): trajetórias, projetos e possibilidades. *Caderno Pedagógico,* [s. l.], v. 21, n. 4, p. e3939, 2024.
13. MOE. 教育部部长怀进鹏在2024世界数字教育大会上的主旨演讲：携手推动数字教育应用、共享与创新. [*S.l.*], 2024. Disponível em: http://www.moe.gov.cn/jyb_xwfb/moe_176/202402/t20240201_1113761.html. Acesso em: 20 set. 2025.
14. Moraes, Renato Medeiros de. *Entrevista para a Comissão de Elaboração do Livro sobre a História da UPE:* Carlos André Silva de Moura, Mário Ribeiro dos Santos, Sandra Simone Moraes de Araújo. Recife, 16 mar. 2022.
15. Pernambuco. Residência em Primeira Infância forma primeira turma. *Diário Oficial,* Recife, 8 ago. 2025.
16. United Nations Educational, Scientific and Cultural Organisation (UNESCO). *COVID 19 Educational disruption and response.* Paris: Unesco, 30 July 2020. Disponível em: http://www.iiep.unesco.org/en/covid-19-educational-disruption-and-response-13363. Acesso em: 22 maio 2020.
17. Universidade de Pernambuco. *2ª turma de Residência em Primeira Infância da SCJ-PE, em parceria com a UPE, registra recorde de inscrições.* Recife, 16 set. 2025.
18. UPE. *UPE participa do Seminário sobre Gestão Universitária no Contexto da Digitalização da Educação.* [*S.l.*], 2024. Disponível em: https://www.upe.br/noticias/upe-participa-do-semin%C3%A1rio-sobre-gest%C3%A3o-universit%C3%A1ria-no-contexto-da-digitaliza%C3%A7%C3%A3o-da-educa%C3%A7%C3%A3o.html. Acesso em: 20 set. 2025.
19. Valle, Paulo Roberto Dalla; Ferreira, Jacques de Lima. Análise de conteúdo na perspectiva de Bardin: contribuições e limitações para a pesquisa qualitativa em educação. *Educação em Revista,* Belo Horizonte, v. 41, e49377, 2025. Disponível em: https://www.scielo.br/j/edur/a/hhywJFvh7ysP5rGPn3QRFWf/?format=html&lang=pt. Acesso em: 17 ago. 2025.
20. YANG, Z. 从“3C”走向“3I”：推动高等教育数字化纵深发展. 中国高教研究, [*s. l.*], 2024.
21. YANG, bin. 充分释放“抗疫红利”__推进教育改革 创新_杨斌. *Tsinghua Journal of Education,* [*s. l.*], v. 41, 2020.
22. ZHANG, F. 高校智慧校园的建设实践及创新应用——以中央财经大学为例. 现代教育技术, [*s. l.*], 2022.

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"Productivity of the Unproductive School" An Education Policy Designed not to Work

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Abstract- The article examines the thesis of the "productivity of the unproductive school" in the Brazilian context, drawing on IDEB – Adequate Learning in Portuguese Language and Mathematics across the three stages of basic education (early and final years of elementary education and upper secondary education). Methodologically, it is a documentary-analytical study with a quantitative and critical approach, based on secondary analysis of public indicators. The empirical strategy combines descriptive statistics, trend analysis, and relative differences between stages and school networks, with a methodological choice to track Adequate Learning (rather than aggregate indices) and to disaggregate by subject area and stage, in order to mitigate interpretive distortions. The results indicate insufficient national levels and a sharp decline from elementary to upper secondary, more intense in Mathematics (e.g., 2023: 44% → 16% → 5%) and also present in Portuguese Language (55% → 36% → 32%), a pattern observed in the private school network and attenuated—though not overcome—in the federal network. The article argues that instructionism (lesson → test → transmission) sustains a system that fails to ensure learning, producing what we term an "unlearning effect," a cumulative phenomenon; it also discusses the limitations of IDEB-Proficiency, justifying the focus on Adequate Learning by subject and stage.

Keywords: *unproductive school, IDEB, adequate learning, unlearning effect, education.*

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"Productivity of the Unproductive School" An Education Policy Designed not to Work

Pedro Demo [α] & Cristiano de Souza Calisto [σ]

Abstract- The article examines the thesis of the "productivity of the unproductive school" in the Brazilian context, drawing on IDEB – Adequate Learning in Portuguese Language and Mathematics across the three stages of basic education (early and final years of elementary education and upper secondary education). Methodologically, it is a documentary-analytical study with a quantitative and critical approach, based on secondary analysis of public indicators. The empirical strategy combines descriptive statistics, trend analysis, and relative differences between stages and school networks, with a methodological choice to track Adequate Learning (rather than aggregate indices) and to disaggregate by subject area and stage, in order to mitigate interpretive distortions. The results indicate insufficient national levels and a sharp decline from elementary to upper secondary, more intense in Mathematics (e.g., 2023: 44% → 16% → 5%) and also present in Portuguese Language (55% → 36% → 32%), a pattern observed in the private school network and attenuated—though not overcome—in the federal network. The article argues that instructionism (lesson → test → transmission) sustains a system that fails to ensure learning, producing what we term an "unlearning effect," a cumulative phenomenon; it also discusses the limitations of IDEB-Proficiency, justifying the focus on Adequate Learning by subject and stage. On the prescriptive side, it advocates shifting policies and practices toward public research cycles with student authorship, iterative versions, and explicit rubrics, under the principle of "the same yardstick, multiple pathways" (procedural equity). It concludes that the diagnosis is not intended to blame teachers but to inform decisions that reconfigure the school as a learning architecture, grounded in evidence and the public dissemination of results.

Keywords: unproductive school, IDEB, adequate learning, unlearning effect, education.

I. Introduction

We start from Gaudêncio Frigotto's category—"productivity of the unproductive school" (1984; 2018)—to test, using recent Adequate Learning data, whether the Brazilian school still produces the very failure it claims to fight. In his first text (1989), Frigotto examines the relationship between education and the capitalist socio-economic structure, arguing that school does not serve "society"—especially the most vulnerable—but rather the productive system. In the second (2018), nearly thirty years later, he revisits the issue and recognizes a scenario of "social regression and reverse hegemony." This is a frontal critique of a school system acknowledged as inept—or designed not to work.

Such criticism has long been on the minds of major thinkers: Paulo Freire, in a striking 1993 interview, states indignantly that education policy does not take public education seriously - Escola Viva – Interview with Paulo Freire, 1993 (TV Cultura, 1993); Darcy Ribeiro used to say that Brazilian schooling "is not a crisis; it is a project" (Roitman, 2022); Anísio Teixeira, involved in public policy, repeatedly voiced a resounding critique of such an inept school (1936; 1957; 1967). Although Frigotto's expression sounds blunt, any focused diagnosis reveals an unbelievable average for public schooling. At times, in the name of defending public schools (which enroll about 80% of students), some authors avoid criticism—a pernicious stance, since we only change what we diagnose, as medicine suggests (Zhao, 2018). Diagnosis is always ambiguous: it can be used to classify only—or to care. Every diagnosis classifies, but its pedagogical rationale is to ensure student learning.

Nor is it only public schooling that faces endemic problems: private schools do too. In this text we show, based on IDEB (run by INEP), to what extent the productivity of the unproductive school can be indicated. In the 1990s, John Taylor Gatto (1992) spoke of "programmed stupidity" in schools aimed at the functional docilization of students. Which country was he talking about? The United States.

II. A School Far from Learning

What is public school for? We would say: to learn. Learning is not its sole purpose, but it is its core, most recognized one. In the context of instructionism (education reduced to reproductive instruction), schools take care of the curriculum, striving to cover it in full during the school year. At the same time, state and municipal departments only check whether classes were held; if so, the year is considered "complete." It is now clear that attending classes and taking tests does not produce the expected effect—provided we diagnose student learning, as IDEB intends.

A conspicuous example of this ineptitude appears in ENEM (the national exam offered annually).

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In 2024, only 12 candidates out of 3.2 million earned a perfect score in writing. Even if one questions the "canned" essay format (partly designed to ease textual assessment), writing is crucial to learning, especially in a view that conceives learning as authorship (Dehaene, 2020; Demo, 2015; 2018). Why has writing vanished from school practice? In part because teachers do not write; nor is this skill cultivated in pedagogy degrees and teacher education. We lack basiceducation teachers who are authors, scientists, researchers, digitally literate—we train classroom performers of teaching and content, whereas we need, beyond that, professionals of learning.

Any theorization of learning, especially when anchored in neuroscience (Dehaene, 2020), insists that learning requires active participation (a passive organism does not learn), engagement, and protagonism—so learning is, crucially, authorship. This resonates with our autopoietic evolutionary structure (Maturana & Varela, 1997): pressed by the environment, we are capable— albeit relatively—of producing authorship. This direct involvement of students appears in so-called constructivist views, now somewhat out of fashion for overstating authorship (learning is more aptly a reconstruction, not a construction), as Barthes suggested in the "death of the author," albeit via a different argument (he emphasized innate mental structure: we reconstruct texts as this structure enables, without determinism) (Barthes, 1977). Magolda, in the late 1990s, tackled the challenge of self-authorship (still constructivist, arguably pleonastic) (1999; Magolda et al., 2010).

Given that we likely will not have a consensual theory of learning—it is exceedingly complex and contested—we limit ourselves here to highlighting the challenge of authorship in learning. It does not depend on class or test; it depends on learning activities (reading, studying, researching, drafting, grounding…), things largely absent from school. It is not the result of "active methodologies" (Bacich & Moran, 2018) or "flipped classrooms," because such proposals ultimately seek to save the lesson (teaching), not learning.

Learning does not happen in class; it happens in the student's mind, provided they engage and reconstruct curricular content. What comes from outside is mediation—important, to be sure. But nothing replaces student effort, motivation, and authorship. We generally overestimate teaching, as teachers tend to see themselves as the artisans of student performance—a stance that is, in itself, colonizing. The more eloquent fact is that school is not up to students; on average they waste time in it. By itself, school should not fail (if a student does what they can, failing makes no sense), nor pass without learning (that is fraud). In practice, crowds advance without learning, as the data show. Hence the "years of schooling" indicator has lost meaning (still used, e.g., in the HDI): those who complete upper secondary would have 12 years of study which, if scrutinized, would be worth no more than three or four. Massive public funds are squandered to maintain a school largely useless to students.

We remain in the age of content-ism, of which private schools often boast—yet it does not work, as we shall see. It is also clear that school is not yet an institution of the student, made for the student. It is the teacher's institution, keeping the teacher on a pedestal and staging empty performances without caring whether students learned—or alleging that the teacher's task is to teach and the student's is to learn; if learning does not occur, it is not the teacher's problem.

Of course, learning does not depend solely on pedagogy. There are many other impactful factors, such as student poverty. Since most students are poor, this introduces major obstacles— even though poverty does not necessarily prevent learning. In this respect, there is a stark difference between public and private schools: the latter serves the wealthiest 20%. It does not achieve the bragged-about performance either, especially as the best basic schooling in Brazil is public—a specific federal model with very low coverage (~1%). Teacher issues strongly influence performance: weak initial training in universities that maintain an outdated format; continuing education that merely reheats undergraduate training; low pay (teachers' socioeconomic condition is "proof" that education "isn't worth it"); precarious hiring; devaluation of the profession (BID, 2018). Moreover, a prevailing neoliberal context slashes public budgets, threatens privatization as if private schooling were exemplary, and precarizes teaching. In the end, the country is stuck with obsolete, stagnant, inert provision—in both public and private sectors, on average.

To grasp the extreme difficulty of learning in school, we use the concept of the "unlearning effect" (Demo & Silva, 2021) to designate the striking tendency to learn less and less as one moves up the stages. Typically, the starting point in the Early Years (national average) is very insufficient, and even more so in Mathematics (a worrying gap: if Mathematics starts out inferior, it never catches up)—yet that is our best stage. Early Years are the pedagogue's stage, which shows the best performance (although with avoidable math gaps). In the Final Years, when the subject specialist enters, the drop is shocking, especially in Mathematics, with highly deteriorated figures—even with the presence of a "specialist." In Upper Secondary, Mathematics becomes residual, drifting away from Portuguese and leaving an unsettling question: why are language teachers, though still insufficient, so far above mathematics teachers, who seem to have given up?

III. On IDEB

This index has sparked many controversies, including resistance among teachers to its application—partly because the results are alarming. To this day, IDEB does not include science (PISA always has), because we still have not awakened to the importance of science education (Linn & Eylon, 2011; Slotta & Linn, 2009; Demo, 2010). In the BNCC (2018), science education appears mainly in Biology, as usual, although it is a typically interdisciplinary strand. Teachers are not authors, scientists, researchers, or digitally literate, hence not up to students' needs—especially the most vulnerable.

IDEB is part of assessments linked to Item Response Theory (IRT), but it has shown constant weaknesses in the application of Prova Brasil: many schools focus only on Portuguese and Mathematics; many drill the IDEB test weekly to ensure some performance; some bring only the best-performing students on test day. Organizing such a test is indeed difficult in a continental country with vast disparities. The series dates back to 1995.

A deeper problem is that the IDEB-Proficiency version lacks statistical consistency— surprisingly so. It is a number from 0 to 10, obtained by averaging scores in Portuguese and Mathematics on Prova Brasil and multiplying by the pass rate. First, averaging LP and M makes no sense—they are different magnitudes; both must be learned fully, not averaged. This is a bizarre idea, aggravated by using a pass rate outside IRT coverage (it is provided by teachers). For instance, in the Early Years, the "average" in LP and M was 5.91, which, multiplied by the pass rate 0.97, yields 5.7. States and municipalities quickly realized that passing everyone raises IDEB: if 1.0 were used, IDEB would be rounded to 6. This masks the misery of mathematics performance: in Upper Secondary, for example, LP was 32% and M 5%, resulting in a nonsensical "average" of 18.5. The suspicion lingers that this most-used IDEB version was designed to cloak the worst learning difficulties at school.

In this text, we use only IDEB – Adequate Learning (a percentage), which separates LP and M and follows them across three stages (Early Years, Final Years, Upper Secondary). This version also has problems (e.g., what counts as "adequate learning," easily reduced to content-ism— memorization— because it is more measurable). If we wanted to assess authorship-based learning, it would certainly be a very pale measure.

It is important to stress that the aim of evaluation is to take care of student learning, which is what matters most in school. Evaluation is not done merely to classify—much less to oppress— but to preserve the opportunity to learn. Within natural parsimony and without forcing ethereal national means, IDEB – Adequate Learning can be used.

IV. The Profile of Adequate Learning in Public Schools

In Table 1 we see the profile of Adequate Learning in LP and M in Early Years, Final Years, and Upper Secondary for 2023 in Brazil and four states (as examples). These are large national averages, very abstract given the country's dimensions. Adequate Learning in Portuguese in the

Early Years was 55%, a very insufficient figure; in Mathematics it was 44%, even more insufficient, with an 11-pp gap—an early inferiorization that will not be recovered. In the Final Years, Portuguese drops from 55% to 36% (−19 pp); Mathematics from 44% t o 16% (−28 pp), an enormity. In Upper Secondary, Portuguese shows 32%, while Mathematics is a mere 5%—residual. The unlearning effect is far stronger in Mathematics (44% → 16% → 5%). In Portuguese it is smaller (55% → 36% → 32%).

Table 1: Adequate Learning in Public Schools, Early Years, Final Years, High School, Brazil and Some States, 2023 (%).

	Anos Iniciais		Anos Finais		Ensino Médio	
Estados	Português	Matemática	Português	Matemática	Português	Matemática
Brasil	55	44	36	16	32	5
São Paulo	63	53	42	20	37	5
Pará	36	24	24	8	23	2
DF	65	50	35	14	33	5
Maranhão	39	26	23	9	16	2

Note: Source: QEdu 2023 (https://qedu.Ed.br/brasil/aprendizado).

Focusing São Paulo, figures stand above national averages—except in Upper Secondary: Portuguese is only 5 pp higher; Mathematics is the same (5%). In the Federal District, the picture is similar, despite being the nation's capital; there, Adequate Learning in Mathematics in the Final Years is already only 14%. In two other (poorer) states the figures are well below national averages, with residual Mathematics

even in the Final Years and 2% in Upper Secondary. This suggests that, despite regional differences, the profile is insufficient everywhere, especially in Mathematics— and even more so in Upper Secondary, a state-run provision and the nation's most precarious school level.

The Early Years, typically municipal and tied to pedagogues, have been the country's best performing stage, though still very insufficient. The Mathematics gap is worrying: there is no reason to inferiorize Mathematics—even if many pedagogues do not favor it. The greater concern is that, once Math is inferiorized in the Early Years, it never recovers, even when the licensed subject specialist enters. The Final Years are delivered by specialists yet show huge declines. One tends to assume that specialists would have better training, but the data do not bear this out.

The Final Years showed precarious performance, but the most catastrophic results were in Upper Secondary (Table 2). In mathematics, in 2023, the state averages for Adequate Learning ranged from 2% to 9%, with 5% as the national average (Brazil). The data suggest an exasperated disinclination toward mathematics, as if it were impossible to learn. In every state the figures were residual (below 10%). Only two states reached 9%—Espírito Santo and Goiás—and they are not among the country's leading states. Note the very poor performance of São Paulo, the country's richest state (5%).

Table 2: Ranking of Adequate Learning, Public School, Mathematics and Portuguese Language, Ideb 2023, %.

Matemática				Língua Portuguesa			
Amapá	2	**Brasil**	**5**	Maranhão	19	Paraíba	30
Pará	2	Piauí	5	Amazonas	21	Mato Grosso do Sul	30
Acre	2	São Paulo	5	Roraima	21	**Brasil**	**32**
Maranhão	2	Mato Grosso do Sul	5	Bahia	22	Distrito Federal	33
Amazonas	3	Distrito Federal	5	Pará	23	Rio Grande do Norte	33
Roraima	3	Santa Catarina	6	Sergipe	24	Minas Gerais	35
Tocantins	3	Rio Grande do Norte	7	Alagoas	25	Santa Catarina	36
Sergipe	3	Minas Gerais	7	Tocantins	26	Ceará	36
Bahia	3	Paraná	7	Rio de Janeiro	26	Pernambuco	36
Mato Grosso	3	Ceará	8	Piauí	27	São Paulo	37
Rondônia	4	Pernambuco	8	Amapá	28	Goiás	40
Paraíba	4	Rio Grande do Sul	8	Acre	28	Rio Grande do Sul	41
Alagoas	4	Espírito Santo	9	Mato Grosso	29	Paraná	42
Rio de Janeiro	4	Goiás	9	Rondônia	30	Espírito Santo	43

Note: Source: QEdu 2023.

In Portuguese language, the figures were much higher—though still very insufficient— indicating a marked divergence between the performance of language teachers (who still seemed to believe in recovery) and mathematics teachers (who seemed to have capitulated). The range was 19% to 43%; none of it satisfactory, although well above mathematics, with an average of 32%.

The data suggest that schools maintain a perfectly inept teaching practice, particularly in mathematics, because it fails in its chief function: to ensure the student's authorial learning. The raison d'être of teaching is learning. Mathematics classes are offered systematically, as always— many basic-education teachers deliver them "religiously," yet to no avail. We tend to see the class as the founding event of school and university, when it is merely mediation. Learning does not reside in the class; it resides in the student's mind. What comes from outside is mediation, as Vygotsky famously said (1989; 1989a). Learning is not something that can be caused from the outside, from above; it is student protagonism, which can be mediated—and therein lies the teacher's indispensable relevance.

Just as a woman, when she conceives, carries, and brings forth a child, does so as a mediator (Hrdy, 1999)—and is therefore the most exuberant instance of mediation in nature—not as a "causer." The child does not belong to her, although she typically cares for the child with utmost devotion. The teacher's fundamental role is to care for the student's authorship, just as a mother cares that her child becomes the author of their own life. One day the child must "free themselves" from the mother—and we call that emancipation. In Rosa's hard critique (2010; 2019) of eurocentric self-determination, emancipation is unilateral, colonizing, privatizing: it always implies preventing the other's emancipation, because in eurocentric (Euro-American) civilization the other is a rival to be eliminated, not an "authentic other" (Maturana, 2002).

One of the most forceful critiques of this useless teaching appears in Barthes (1996), following Foucault (1977; 2004): referring to the May 1968 student uprising in Paris, he challenges the libido dominandi, the power ambushed within teaching, the "fascist" language. What is the point of a class that yields 2% adequate learning in mathematics? Is it not perfectly useless?

Carraher et al. (1995) produced a very illuminating study—"Ten in life, zero at school"—showing that while in everyday life it is hard to find anyone who cannot shop at the market, understand prices and change, or gauge a child's weight and size, at school this "mathematics" becomes a torment, leaving the impression that school goes out of its way to make it difficult. We only learn mathematics if we understand it. Understanding is not a product of the lesson; it is a capacity of the student. The role of the mathematics teacher is not to hand over content, but to enable the student to understand mathematics. Until that happens, the class is useless. There was a time when a supposed mark of quality for a math teacher was to flunk everyone. We no longer accept that. But the scenario has not changed: mathematics remains a deep marker of exclusion.

Yet this is not only a Brazilian problem. In the United States, PISA 2022 performance (PISA-2022, 2023) was very insufficient—an embarrassment for MAGA (Table 3)—with the country in 34th place in the mathematics ranking (Table 3). Clearly, mathematics is a serious problem in American schooling, standing more than 100 points below Singapore's performance. In practice, high performance in mathematics is an Asian phenomenon (concentrated in Singapore and China, plus Japan and South Korea), even though it is common to criticize the methods used as "draconian," causing absurd stress among students (Zhao, 2018; Ripley, 2013; Sahlberg, 2017). Canada ranked 9th, far above the United States. Mathematics is—today even more than before—a gatekeeping criterion for the most advantageous jobs globally, especially in the digital and AI world. Quite likely, in digital technologies China may overtake the United States (Lee, 2018; Jin, 2023).

Table 3: Performance in Pisa-2022 in Mathematics, Reading and Science, Some Countries.

Posição	Países	Matemática	Leitura	Ciência
1	Cingapura	575	543	561
2	Macau (China)	552	510	543
3	Taipei (China)	547	515	537
4	Hong Kong (China)	540	550	520
5	Japão	536	516	547
6	Coreia	527	515	528
7	Estônia	510	511	526
9	Canadá	497	507	515
34	Estados Unidos	465	504	499
62	Brasil	379	410	403

Note: Source: Pisa-2002.

Brazil appears in 62nd place, no surprises. It performed poorly in all three domains, especially in mathematics. It was a certificate of backwardness (backwardness as a project, in Darcy Ribeiro's critique), but, "comparatively," it is not so different from the American position in "moral" terms (Lubienski & Lubienski, 2013; Ravitch, 2020). The United States once had the best high school system in the world, in the postwar period, when nearly all school-age students attended high school and from there an exuberant middle class emerged (Piketty, 2022), but it was destroyed (McMahon, 2023)—as was the middle class (Piketty & Sandel, 2025).

V. Private School Boasting

As we can see in Table 4, the private sector is well ahead of the public sector—an expected result, since private schools serve the wealthiest 20% (the elite). While Adequate Learning in Portuguese (LP) and Mathematics in the Early Years (AI) was 55% and 44% in public schools, in private schools the figures were 83% and 73%, respectively. In the Final Years (AF), they were 36% and 16% versus 68% and 49%. And in Upper Secondary (EM), 32% and 5% versus 64% and 31%. It is clear that in private schools the "unlearning effect" operates dramatically, as does the math gap, because, in the end, the teachers are the same. In mathematics, above all, the drop is astonishing: 73% in the Early Years; 49% in the Final Years; 31% in Upper Secondary, on the national average. Even the Early Years figures are not satisfactory; they should be above 90%. And the 31% Adequate Learning in mathematics in Upper Secondary is not essentially "different" from the 5% in public schools (on average).

Table 4: Adequate Learning in Public, Private and Federal Schools, Brazil, 2023 (%).

	Anos Iniciais		Anos Finais		Ensino Médio	
Escola	Português	Matemática	Português	Matemática	Português	Matemática
Pública	55	44	36	16	32	5
Privada	83	73	68	49	64	31
Federal	89*	77*	83*	72*	75	35

*Note: Source: QEdu 2023 (https://qedu.Ed.br/brasil/aprendizado). *2021.*

What stands out, however, is that the best basic schooling is the federal system (we do not have data for 2023 except for Upper Secondary – EM), yet the table makes it clear that its performance is much better. The federal system has very small coverage (around 1%) (School Census… 2024:15), but its results have drawn attention, as they suggest that quality public schooling is possible and need not be as elitist as the private sector. This federal system exhibits ailments common to Brazilian education—such as the unlearning effect, the mathematics gap, and the steep decline in math performance—but it is "consoling" that it is the best basic school option, perhaps in the same vein as Lubienski & Lubienski (2013).

The private sector generally claims to be staunchly content-driven and, for that reason, to place students in the top entrance examinations, including the most competitive slots at the best public universities. In practice, this occurs due to the weakness of public schooling, as the data amply attest, not because of private virtue. In Table 5 one can see that private-sector performance in Mathematics in 2023 was blatantly insufficient: 15% to 49% across states, with a national mean of 31%. Considering that it serves the national elite and charges tuition, this amounts to a counterfeit product. Major states such as Rio de Janeiro and Rio Grande do Sul posted 21% and 28% (respectively), and the best state, Minas Gerais, did not reach 50%. One may say that there, too—overall and on average—the mathematics lesson is perfectly useless… and paid for.

In Portuguese Language (LP) the performance was significantly better, as is common here (LP is learned far better than Mathematics), ranging from 48% to 77%, with a mean of 67%, yet it is still not satisfactory. This is a very inept school system that, to a large extent, defrauds its students and, ironically, charges them dearly.

Table 5: Ranking of Adequate Learning, Private School, Mathematics and Portuguese Language, Ideb 2023.

Matemática				Língua Portuguesa			
Amapá	15	Tocantins	28	Alagoas	48	Ceará	65
Alagoas	15	Pernambuco	28	Sergipe	56	Bahia	65
Roraima	16	Bahia	28	Paraíba	56	Mato Grosso	65
Rondônia	17	Rio Grande do Sul	28	Amapá	57	Amazonas	66
Sergipe	21	Mato Grosso	29	Roraima	58	Espírito Santo	66
Rio de Janeiro	21	Brasil	31	Goiás	58	Rio Grande do Sul	67
Pará	23	Espírito Santo	33	Rio de Janeiro	59	Brasil	67
Amazonas	23	Paraná	33	Rondônia	60	Mato Grosso do Sul	68
Rio Grande do Norte	23	São Paulo	34	Maranhão	60	Paraná	69
Paraíba	24	Santa Catarina	36	Pernambuco	61	São Paulo	71
Goiás	24	Mato Grosso do Sul	37	Pará	62	Distrito Federal	71
Acre	26	Piauí	38	Tocantins	63	Piauí	73
Maranhão	26	Distrito Federal	40	Rio Grande do Norte	64	Santa Catarina	75
Ceará	26	Minas Gerais	49	Acre	64	Minas Gerais	77

Note: Source: QEdu 2023.

Table 6 shows the historical series since 1995 in mathematics, indicating that, after 28 years, we have only moved backward in Upper Secondary (EM). There was progress in the Early Years (AI)—the stage typically taught by pedagogues—but stagnation in the Final Years (AF). And in Upper Secondary, a systemic cataclysm. The most striking example is the Federal District (DF): it started in 1995 with 31.5% adequate learning in mathematics (a figure that seems suspicious; we have never had another like it), and by 2023 we had reached 5%! Pará, which began at 4.3%, was at 2% in 2023.

Tabel 6: Aprendizado adequado de matemática, AI, AF, EM, 1995-2023, Brasil, São Paulo, DF, Pará.

Anos Iniciais (AI)					
	1995	2005	2015	2017	2023
Brasil	19,0	18,7	42,9	48,9	44,0
DF	20,4	37,1	52,1	61,3	50,0
São Paulo	25,7	26,9	59,3	65,0	53,0
Pará	05,9	05,5	22,1	23,1	24,0
Anos Finais (AF)					
Brasil	16,8	13,0	18,2	21,5	16,0
DF	28,0	25,5	22,6	28,1	14,0
São Paulo	23,1	15,1	22,7	28,1	20,0
Pará	06,1	05,2	07,9	08,3	8,0
Ensino Médio (EM)					
Brasil	11,6	10,9	07,3	09,1	5,0
DF	31,5	23,6	12,8	17,0	5,0
São Paulo	14,4	15,2	09,0	09,9	5,0
Pará	04,3	04,1	02,9	03,9	2,0

Note: Fonte: Todos pela Educação e QEdu.

São Paulo, the richest state in the federation, started at 14.4% and fell to 5% (the same as the national average), indicating a school system designed not to work. Although one might highlight the rise in adequate learning in mathematics from 19% (1995, national average) to 44% (2023), this figure is still, frankly, miserable.

VI. Conclusion

The data do not say that we are inept ad aeternum, with no way out; they say that the current school, yes, has no way out. In large part, we avoid diagnosis because it is too painful. The best way not to have cancer is not to see a doctor. This ostrich policy is at the heart of Brazilian educational policy—and of private schooling. In this instructionism, left and right are cheerful partners. They deliver the same useless lesson. A lesson can be useful—there are emblematic lessons—but they are delivered by authors, not parrots. Since the project is to train parrots, the school must be a parrot aviary. That is what Darcy Ribeiro, Paulo Freire, and Anísio Teixeira criticized head-on, and to this day we have not changed it. It is what Frigotto has been castigating for 36 years. In this landscape, the federal school system appears as a consolation, because—even if still elitist—it offers something far higher in quality; yet, when scrutinized from within, the provision remains instructionist, because we have not even minimally grasped the insanity of this view. Millions of Brazilian students show up at school every day to be defrauded, in broad daylight or in the penumbra of night. In the Federal District, adequate learning in mathematics was 50% in the Early Years (AI), 14% in the Final Years (AF), and 5% in Upper Secondary (EM). How can there be a 36-percentage-point drop from AI to AF, precisely when the licensed subject specialist enters—one from whom better performance would be expected? This ineptitude seems endemic, "painstakingly crafted." No wonder privileged states such as São Paulo and the Federal District have 5% adequate learning in mathematics in Upper Secondary. Is this not a school made not to work?

Modus in rebus, as the sensible Romans said! First, it is not a matter of "blaming" teachers, as is customary in the United States, to the point of firing teachers whose students perform poorly (Goldstein, 2014). We are responsible for what we do, but guilty. Second, the teaching task can be greatly hindered by countless other reasons, starting with student poverty, extreme in many parts of the country; insecurity in and around schools; devaluation/precarization of the teaching profession; utterly outdated university programs; continuing education reduced to reheating already inept undergraduate training; and so on. Problems this complex do not have a single cause, but a bundle of causes that is likewise indiscernible. The

data certainly indict the lesson being delivered, because it is blatantly useless—even though a lesson need not be an obstacle. However, if a lesson only works when it is delivered by an author, researcher, scientist, then the school lesson does not work, because it is a copy to be copied. Just look at ENEM: if no one writes well, it is because everything is copied, amen.

At the same time, it is possible to make a diagnosis, certainly preliminary like the one I have attempted here, but it is avoided or anathematized, because it hurts too much to see oneself laid bare. Yet we assess in order to care, not to flog, massacre, exclude. What is done in schools today is, in many senses, a massacre—carried out by those who often imagine they are redeeming the world. School remains colonizing (or docilizing, in Foucault's language) (1977; 2004), or stultifying in Gatto's (1992), at least in part because it is not an institution devoted to the student's right to learn; it is a teacher-centered institution. The great school event is not student learning, but the teacher's performance.

References Références Referencias

1. Bacich, L., & Moran, J. (Eds.). (2018). *Metodologias ativas para uma educação inovadora*. Penso.
2. Barthes, R. (1977). *The death of the author*. Hill and Wang.
3. Barthes, R. (1996). *Aula*. Cultrix. https://drive.google.com/file/d/1mUHn8CF0A-Ej5t_5EfUAOcWiCHijrc8/view
4. Carraher, T. N. (Ed.). (2003). *Aprender pensando: Contribuições da psicologia cognitiva para a educação*. Vozes.
5. Carraher, T. N., Schliemann, A., & Carraher, D. W. (1995). *Na vida dez, na escola zero*. Cortez.
6. Dehaene, S. (2020). *How we learn: Why brains learn better than any machine… for now*. Penguin Books.
7. Demo, P. (2010). *Educação e alfabetização científica*. Papirus.
8. Demo, P. (2015). *Aprender como autor*. GEN.
9. Demo, P. (2018). *Atividades de aprendizagem: Sair da mania do ensino para comprometer-se com a aprendizagem do estudante*. SED/Governo de MS. https://drive.google.com/file/d/1FKskDCxNB422PVhrjrDjD48S4cjsb77-/view
10. Demo, P., & Silva, R. (2021). *Efeito desaprendizagem na escola básica*. Amazon. https://drive.google.com/file/d/1jnLdc4Eie3zY0eDbmfMrz6Kac17kVqj0/view
11. Elacqua, G., Hincapié, D., Vegas, E., & Alfonso, M. (2018). *Profissão professor na América Latina: Por que a docência perdeu prestígio e como recuperá-lo?* Banco Interamericano de Desenvolvimento. https://publications.iadb.org/handle/11319/8953
12. Foucault, M. (1977). *Vigiar e punir: História da violência nas prisões*. Vozes.
13. Foucault, M. (2004). *The birth of biopolitics*. Picador.
14. Frigotto, G. (1989). *A produtividade da escola improdutiva: Um (re)exame das relações entre educação e estrutura econômico-social capitalista*. Cortez.
15. Frigotto, G. (2018). A produtividade da escola improdutiva 30 anos depois: Regressão social e hegemonia às avessas. *Trabalho Necessário, 13*(20), 206–233. https://www.researchgate.net/publication/326050438_A_PRODUTIVIDADE_DA_ESCOLA_IMPRODUTIVA_30_ANOS_DEPOIS_REGRESSAO_SOCIAL_E_HEGEMONIA_AS_AVESSAS
16. Gatto, J. T. (2019). *Emburrecimento programado: O currículo oculto da escolarização obrigatória*. Kirion. (Obra original publicada em 1992).
17. Goldstein, D. (2014). *The teacher wars: A history of America's most embattled profession*. Doubleday.
18. Hrdy, S. B. (1999). *Mother nature: A history of mothers, infants, and natural selection*. Pantheon Books.
19. Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. (2024). *Censo escolar da educação básica 2023: Resumo técnico*. INEP. https://download.inep.gov.br/publicacoes/institucionais/estatisticas_e_indicadores/resumo_tecnico_ censo_escolar_2023.pdf
20. Jin, K. (2023). *The new China playbook: Beyond socialism and capitalism*. Viking.
21. Lee, K.-F. (2018). *AI superpowers: China, Silicon Valley, and the new world order*. Houghton Mifflin Harcourt.
22. Linn, M. C., & Eylon, B.-S. (2011). *Science learning and instruction: Taking advantage of technology to promote knowledge integration*. Routledge.
23. Lubienski, C. A., & Lubienski, S. T. (2013). *The public school advantage: Why public schools outperform private schools*. University of Chicago Press.
24. Magolda, M. B. B. (1999). *Creating contexts for learning and self-authorship: Constructive developmental pedagogy*. Vanderbilt University Press.
25. Magolda, M. B. B., Creamer, E. G., & Meszaros, P. S. (Eds.). (2010). *Development and assessment of self-authorship: Exploring the concept across cultures*. Stylus.
26. Maturana, H. R., & Varela, F. (1997). *De máquinas e seres vivos: Autopoiese – A organização do vivo*. Artes Médicas.
27. Maturana, H. (2002). *Emoções e linguagem na educação e na política*. Editora UFMG. http://projetosntenoite.pbworks.com/w/file/fetch/57862785/Humberto%20Maturana%20-%20Emo%C3%A7%C3%B5es%20e%20Linguagem%20na%20Educa%C3%A7%C3%A3o%20 e%20na%20P%E2%80%A6.pdf
28. McMahon, D. M. (2023). *Equality: The history of an elusive idea*. Basic Books.

29. Ministério da Educação. (2018). *Base Nacional Comum Curricular: Educação é a base* [BNCC]. MEC. http://basenacionalcomum.mec.gov.br/images/BNCC_EI_EF_110518_versaofinal_site.pdf
30. OECD. (2023). *PISA 2022 results (Vol. 1): The state of learning and equity in education*. OECD Publishing. https://www.oecd-ilibrary.org/deliver/53f23881-en.pdf
31. Piketty, T., & Sandel, M. J. (2025). *Igualdade: Significado e importância*. Civilização Brasileira.
32. Ravitch, D. (2020). *Slaying Goliath: The passionate resistance to privatization and the fight to save America's public schools*. Random House Audio.
33. Ripley, A. (2013). *The smartest kids in the world: And how they got that way*. Simon & Schuster.
34. Roitman, I. (2022, 14 de outubro). A crise da educação no Brasil não é uma crise: é projeto. *UnB Notícias*. https://noticias.unb.br/artigos-main/6081-a-crise-da-educacao-no-brasil-nao-e-umacrise-e-projeto
35. Rosa, H. (2010). Autonomieerwartung und Authentizitätsanspruch: Das Versprechen der Aufklärung und die Orientierungskrise der Gegenwart. In O. Bridbach & H. Rosa (Eds.), *Laboratorium Aufklärung* (pp. 199–215). Wilhelm Fink.
36. Rosa, H. (2019). *Resonance: A sociology of our relationship to the world*. Polity.
37. Sahlberg, P. (2017). *FinnishED leadership*. Corwin.
38. Slotta, J. D., & Linn, M. C. (2009). *WISE science: Web-based inquiry in the classroom*. Teachers College Press.
39. Teixeira, A. (1994). *Educação não é privilégio*. Editora UFRJ. (Obra original publicada em 1957).
40. Teixeira, A. (1996). *Educação é um direito*. Editora UFRJ. (Obra original publicada em 1967).
41. Teixeira, A. (1997). *Educação para a democracia: Introdução à administração educacional*.
42. Editora UFRJ. (Obra original publicada em 1936).
43. TV Cultura. (1993). *Escola Viva: Entrevista com Paulo Freire* [Vídeo]. YouTube. https://www.youtube.com/watch?v=bwvHZJLfhYE
44. Vygotsky, L. S. (1989a). *A formação social da mente*. Martins Fontes.
45. Vygotsky, L. S. (1989b). *Pensamento e linguagem*. Martins Fontes.
46. Wanderley, J. G. (2010). *A aula como acontecimento*. Mercado de Letras.
47. Zhao, Y. (2018). *What works may hurt: Side effects in education*. Teachers College Press.

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Spirituality, Ethics, and Morality in Education: A Philosophical Perspective on Integral Formation

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Abstract- This theoretical and qualitative study addresses the central question of how spirituality, morality, and ethics articulate as essential dimensions of human formation and fundamental pillars of Integral Education. The research aims to demonstrate that spirituality can be conceptualized as a formative and integrating category of knowledge, morality, and ethics within the educational context. The methodology employed is a theoretical synthesis and narrative review of key philosophical and educational literature, focusing on the conceptual evolution of these dimensions. The analysis is structured around thematic clusters, beginning with the systemic perspective of Fritjof Capra, which frames spirituality as a unifying dimension of reason, ethics, and moral consciousness. The perspective expressed in the paradigm of wholeness and interconnection, a central theme for the thesis of Integral Education, finds in Capra a contemporary conceptual lens through which the historical development of this theme is interpreted. Subsequently, the study traces the historical-philosophical development from classical thought (Socrates, Plato, Aristotle) to modern and contemporary perspectives (Kant, Nietzsche, Tillich, Bauman), culminating in the Latin American and territorial view of Rodolfo Kusch.

Keywords: *spirituality, morality, ethics, philosophy, integral education.*

GJHSS-G Classification: *LCC Code: BJ1–BJ1725*

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Spirituality, Ethics, and Morality in Education: A Philosophical Perspective on Integral Formation

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Abstract- This theoretical and qualitative study addresses the central question of how spirituality, morality, and ethics articulate as essential dimensions of human formation and fundamental pillars of Integral Education. The research aims to demonstrate that spirituality can be conceptualized as a formative and integrating category of knowledge, morality, and ethics within the educational context. The methodology employed is a theoretical synthesis and narrative review of key philosophical and educational literature, focusing on the conceptual evolution of these dimensions. The analysis is structured around thematic clusters, beginning with the systemic perspective of Fritjof Capra, which frames spirituality as a unifying dimension of reason, ethics, and moral consciousness. The perspective expressed in the paradigm of wholeness and interconnection, a central theme for the thesis of Integral Education, finds in Capra a contemporary conceptual lens through which the historical development of this theme is interpreted. Subsequently, the study traces the historical-philosophical development from classical thought (Socrates, Plato, Aristotle) to modern and contemporary perspectives (Kant, Nietzsche, Tillich, Bauman), culminating in the Latin American and territorial view of Rodolfo Kusch. This approach allows for a critical synthesis of how these concepts have shaped the understanding of human formation. The main finding is that spirituality, understood in its philosophical and educational sense, constitutes an ontological and formative dimension of the human being, articulating reason, morality, and ethical sensibility. The study concludes that the integration of this dimension into Integral Education expands the horizon of formation, offering a specific framework for pedagogical practices that promote dialogue, critical consciousness, and humanization, thereby advancing the existing literature by providing a cohesive conceptual model for its application.

Keywords: spirituality, morality, ethics, philosophy, integral education.

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I. Introduction

Spirituality has aroused growing interest in the field of philosophy and education (Gerone, 2025), configuring itself as a dimension of self-knowledge, knowledge of the world, and knowledge of the other. It involves the search for meaning and purpose in life, the feeling of belonging, and the transmission of moral, ethical, cultural, and social values (Gerone, 2025). It is important to highlight that spirituality is not restricted to religion or religiosity but encompasses a philosophical-educational reflection on the totality of human experience. It is in this conception that it acquires relevance for the philosophy of education, particularly for what is called "Integral Education".

The present study aims to analyze the articulation among spirituality, morality, and ethics as essential dimensions of human formation, seeking to answer the following question: How can spirituality be understood as a formative and integrative category of knowledge, morality, and ethics within the context of Integral Education?

According to Moll et al. (2017), Integral Education can be understood as the full development of the human being, including all its dimensions in the educational process: intellectual, physical, emotional, social, cultural, political, and spiritual. This conception also involves a collective educational project, which integrates educators, students, managers, support networks, family members, and the local community (Gerone, 2025).

In this perspective, spirituality is understood as an integrating and self-knowledge dimension, capable of connecting individuals to meaningful learning (Moll et al., 2017). In this way, it attributes meaning to action and the search for knowledge through ethical and moral values. Although recognizing the complexity and conceptual ambiguities of spirituality, which are manifested in debates between secular and religious perspectives, to understand this dimension within the scope of human knowledge and values, it is essential to resort to Moral Philosophy, a branch that investigates ethics and morality as foundations of human action and the construction of consciousness.

From this epistemic perspective, ethics constitutes the philosophical thought that reflects on morality, while the latter expresses, in practice, the values and principles that guide human action (Cortina, 2005). Both represent complementary dimensions of integral formation, especially in education, where the construction of ethical and moral consciousness occurs through experiences of meaning, dialogue, and coexistence. The indispensability of Moral Philosophy lies in providing the theoretical framework for the critical analysis of the values and principles that spirituality, in its formative sense, mobilizes, ensuring that the search for meaning is anchored in rational and autonomous reflection.

Spirituality manifests itself, for example, in the existential questions that students and teachers formulate, in the affective bonds that sustain school coexistence, in the ethical mobilization in the face of suffering, and in the construction of a life project with purpose. It is also revealed in the way educators relate to knowledge and their practice, seeking, even in the face of structural and personal challenges, to act with meaning, commitment, and hope (Gerone, 2025). This approach resonates with the proposals of educators who advocate for a holistic and humanizing education, such as John Dewey and Paulo Freire, whose pedagogies emphasize experience, dialogue, and care as central pillars of the educational process.

Methodologically, this study is characterized as a theoretical and qualitative reflection, based on a bibliographic review in the areas of philosophy and education. The impossibility of covering the totality of philosophers and systems of thought on the theme, as well as exhaustively deepening the complex inter-relationships between them, is recognized. Thus, the objective is to analyze the representative thinkers of classical, modern, and Latin American currents, whose contributions aid in understanding spirituality as a category that shapes ethics, morality, and integral education. It is, therefore, an investigation of a philosophical-reflective nature, which seeks dialogues and interpretive possibilities in the educational field.

Fritjof Capra (2014)'s thought is used to substantiate the notion of spirituality and its relationship with education. His philosophical perspective highlights that spirituality and education refer to perennial questions in the history of philosophy: the search for unity between thought and action, knowledge and virtue, reason and interiority, conceiving the human being in their rational, moral, and spiritual totality.

Capra's approach dialogues with the historical foundations of philosophy, in which spirituality and ethics were already understood as principles of human formation. It is in this continuity that this study is structured, proposing to analyze spirituality and ethics in classical, medieval, and modern philosophy, in order to demonstrate how such categories support reflection on education and the constitution of the human.

Philosophers such as Plato and Aristotle introduced concepts such as "*paideia*" and "eudaimonia", relating human formation to virtue, happiness, and good living – notions that inspire what is today called Integral Education as a process of ethical, intellectual, and spiritual refinement. Augustine and Thomas Aquinas integrated faith and reason as complementary dimensions of development, while Kant highlighted moral autonomy as the principle of freedom and the formation of critical subjects. Nietzsche, in turn, questioned traditional moralities, proposing authenticity

and creativity as paths to an emancipatory education focused on the meaning of existence.

The philosophical-moral reflection on spirituality, from antiquity to modernity, reveals its connection with the search for meaning, virtue, and moral formation, assuming distinct meanings in different historical and cultural contexts. It is in this panorama that Latin American thought becomes essential, by expanding the Western tradition through the integration of ancestry, popular culture, and original worldviews, proposing a situated understanding of human formation. In this sense, the philosophy of Rodolfo Kusch stands out, which presents a territorial and symbolic spirituality, rooted in belonging and indigenous cosmologies. Thus, the Latin American context inserts spirituality into the Philosophy of Education as a formative and liberating force, oriented towards humanization and social justice.

Based on this philosophical journey, which articulates spirituality, morality, and ethics as foundations of the educational process, it is recognized that the contemporary challenge lies in integrating such dimensions into education. This study originates from the work of researchers from GEPEES – Study and Research Group on Education, Ethics, and Society –, from CCDEB – Science Center for the Development of Basic Education, funded by FAPESP, – and from a Senior Post-Doctoral Research Project, funded by CNPq, who are dedicated to understanding education in its integrality, including morality, ethics, and spirituality.

Finally, it is considered that spirituality and morality, understood from the perspective of philosophy and Integral Education, constitute inseparable dimensions of human formation, fundamental for rethinking education as part of the search for meaning, transcendence, and humanization.

II. The Relationship between Spirituality, Morality, Ethics, and Education in Fritjof Capra's Philosophical Perspective

Although originating from the natural sciences, Fritjof Capra develops a systemic approach that involves profound philosophical and ethical implications. His thought emphasizes the interdependence between scientific knowledge, moral consciousness, and spirituality, criticizing the mechanistic paradigm and proposing an epistemology that integrates spirituality as a fundamental dimension of human experience – distinct from institutional religion, but articulated with ethics and knowledge. The relevance of Capra to this study lies in his ability to provide a conceptual framework that transcends the traditional dichotomy between science and spirituality, positioning the latter as an essential integrative principle for human development and Integral Education.

For Capra (1996), spirituality represents a human experience that is broader and more foundational than religion. In his perspective, the management of the complex and uncertain world cannot depend exclusively on empirical approaches, but must incorporate the spiritual dimension. The author retrieves the Greek term "*oikos*" (home, house) to emphasize the human reconnection with knowledge, proposing a paradigm shift that values cooperation and quality, integrating the human being as a constituent part – and not external – of the natural system. In this sense, spirituality permeates all human experience, as attested by ancestral ritualistic artifacts. The development of the self-identity would have accompanied physiological transformations, such as bipedalism, while supernatural concepts and religious rituals evolved along with human consciousness, strengthening community cohesion (Capra & Luisi, 2014).

In education, spirituality assumes a historical place, since humanity has developed various methods for acquiring knowledge, among which science and spirituality emerge as significant driving forces. While science drives material and technological progress, spirituality contributes to individual growth and moral behaviors related to resource consumption. According to the author: "contemporary crises such as climate change, wars, and inequality reveal the dangers of uncontrolled scientific progress without spiritual wisdom. The interaction between technological advancement and spiritual perception is crucial for the future of civilization" (Capra & Luisi, 2014, p. 342-343).

Spirituality, therefore, encompasses a broader experience than religion, and can manifest itself through ethics and community rituals. Religion, in turn, consists of the organized attempt to understand the spiritual experience, interpreting it through words and concepts, and extracting moral guidelines for the religious community from it (Capra & Luisi 2014, p. 347). Discussing the compatibility of spirituality with different scientific views and areas of knowledge implies recognizing significant spiritual experiences described transculturally, conceiving it as a way of being and existing founded on a certain experience of reality.

Thus, spirituality can occur independently of religious contexts, coexisting with philosophical understanding and promoting dialogues around morality and ethics, self-knowledge, knowledge of the world, others, and the cosmos, and the meaning of life. This view offers an integral formation and perspective of the human being, aligning with the proposal of integral education. The relationship between spirituality and ethics within Capra's framework is intrinsic to his systemic ontological presupposition: the perception of the fundamental interconnectedness of all phenomena (the web of life) necessarily entails a corresponding ethic of ecological and social responsibility (Capra,

1996). Spirituality, understood as an experience of unity with the whole, ceases to be a private or merely interior sphere and becomes the foundation of a relational ethic, in which every action is evaluated in light of its effects on the integrity of living systems. Moral decision-making, in this context, is informed by the recognition that harm inflicted upon any component of the system constitutes harm to the entirety—and consequently, to the self (Capra, 1996).

The spiritual dimension in education revitalizes intellectual understanding in academic spaces, awakening spiritual consciousness. However, current academic structures often limit interdisciplinary exploration. Spirituality fosters a critical and transformative approach in educational institutions, especially in the face of contemporary global challenges. If the first hominids already manifested a sense of spirituality, the central message is that this dimension and the areas of knowledge are not opposing forces; rather, they must balance each other to ensure the survival and well-being of humanity. As Capra and Luisi states: "with rapid advances in technology and science, spirituality offers guidance for ethical behaviors and inner growth, helping to navigate the existential threats we face." (Capra & Luisi, 2014, p. 344).

The educational implications of this systemic and ethical perspective are clear and manifold. Firstly, it requires the construction of an interdisciplinary curriculum that integrates knowledge from the natural sciences, human sciences, philosophy, and spiritual traditions, thereby promoting an ecological understanding of reality and a consciousness of the interdependence among human beings, other living organisms, and the environment. Such a curriculum is not limited to merely adding content on the environment or spirituality, but rather reorganizes the mode of teaching and learning based on complex problems that demand a holistic view. Secondly, this vision calls for collaborative pedagogical practices that replace competitive and fragmented models with group learning experiences, collective projects, and dialogical processes, in which individuals recognize themselves as co-responsible for the knowledge produced and for the impact of their actions. Thirdly, the education inspired by Capra is oriented toward a formation that transcends the mere acquisition of technical competencies, emphasizing the development of practical wisdom and global responsibility—that is, the capacity to evaluate the ethical and ecological consequences of individual and institutional decisions, in alignment with a spirituality that recognizes the sacredness of life.

In this study, we seek to understand spirituality as an ontological, formative, and existential dimension of the human being, which integrates reason, sensibility, morality, and transcendence, guiding the search for meaning and ethical coexistence. It is expressed in values, attitudes, and ways of understanding life, independently of instituted religious systems, constituting a driving force for self-knowledge and self-improvement.

Although Capra (1996) and Capra and Luisi (2014) emphasize the immanent dimension of spirituality, their proposal engages, albeit indirectly, with perspectives that underscore transcendence as the ultimate foundation of reality. From this perspective, spirituality encompasses both intellectual understanding and spiritual consciousness, articulating knowledge and being, reason and sensibility, knowledge and wisdom.

In the educational field, this dimension acts as an integrating force that gives meaning to learning and inspires the formative process towards self-transcendence – an inner movement of expanding consciousness and ethical commitment to life. However, contemporary academic structures still tend to restrict interdisciplinary dialogue, fragmenting knowledge and weakening the spiritual and ethical dimension of human formation.

Capra's perspective is thus grounded in a systemic ontological presupposition, according to which reality is constituted by networks of relations rather than isolated entities. Being is not understood as an autonomous substance, but as a node within a web of interdependencies—an alignment that brings his thought into proximity with relational ontologies found both in Eastern philosophical traditions and contemporary approaches within the philosophy of biology and ecology. From an epistemological standpoint, Capra rejects the positivist model of knowledge as mere neutral representation of an objective world, advocating instead for a contextual and participatory epistemology wherein the knowing subject is intrinsically implicated in the systems it describes. This position diverges significantly from, for instance, ethical approaches rooted in Kantian thought—centered on individual rational autonomy and the universalization of maxims—by shifting focus from isolated moral decisions toward the systemic consequences of actions within ecological and social networks. Simultaneously, his proposal has faced criticism for occasionally exhibiting undue optimism regarding the capacity of a scientific-spiritual paradigm shift to effect substantive structural transformations within economic and educational institutions. Furthermore, his emphasis on eminently immanent spirituality may generate tension with philosophical-theological traditions that prioritize radical transcendence, necessitating careful conceptual mediation when engaging diverse religious frameworks.

Overcoming this limitation requires promoting interdisciplinary educational approaches that integrate ethical reflection and spiritual consciousness, forming people in their intellectual, emotional, moral, and spiritual totality.

Therefore, Capra's reflection serves as a starting point to historically revisit the relationship between

spirituality, ethics, and morality, understanding how these notions have intertwined since the origins of philosophy until they became foundations for an integral education.

III. Spirituality, Morality, and Ethics in History: A Reflection from Philosophy

In our investigation, we start, as we will see below, from the reconstitution of the historical-conceptual path of the notions of spirituality, morality, and ethics, analyzing their transformations in different philosophical paradigms. We seek to understand how these categories constitute pillars of thought about humanity, virtue, and the meaning of life, fundamental elements for both philosophy and education. In our analysis, we identify that these concepts appear as integrated dimensions of the formative ideal, articulating reason and faith as complementary paths to knowledge and moral perfection.

In pre-Socratic philosophy (7th-5th centuries BC), we observe that good and evil were interpreted through a mythological perspective, where deities influenced people's behavior and way of being (Jaeger, 1991). According to Trabulsi (1993), Greek mythology occupied a relevant space in human and moral reflection precisely by attributing human characteristics to deities. In this period, although spirituality was not clearly distinguished from religiosity, it is possible to identify a symbolic and ethical understanding of life, mediated by mythical narratives that guided behavior and coexistence. This symbolic dimension proves essential for us to think about integral education, since myth, as a formative language, anticipates the cultural and educational function of spirituality.

In classical philosophy, with Socrates (469-399 BC), we witness the consolidation of a more evident ethical and spiritual character, focused on the inner formation of the human being. According to Jaeger (1991), he inaugurates a *paideia* of the soul, understanding education as a process of self-knowledge and self-care. The principle "know thyself" reveals this spiritual dimension, in which philosophical knowledge leads to moral refinement. The Socratic *daimonion*, an inner voice that guides action, symbolizes ethical consciousness and the discernment of good. In our interpretation, Socratic pedagogy, centered on dialogue and maieutics, expresses a rational and educational spirituality that awakens in the disciple the desire for wisdom and virtue.

In Plato (427-347 BC), *eudaimonia* is related to the harmony of the soul and the contemplation of the supreme good. For the philosopher, happiness derives from the wisdom that accesses the world of ideas, with virtue being fundamental for right judgment and action according to the good. As he himself states: "the soul, when it is in itself and analyzes things by itself, without using the body, moves towards what is pure, eternal, immortal, immutable..." (Plato, 1999, p. 149).

In Aristotelian metaphysics (384-322 BC), existence is composed of four causes: material (body constituted of matter), formal (aspects that qualify us as human), efficient (origin of existence), and final (transcendent purpose). The purpose of being is to achieve *eudaimonia*, understood as a virtuous life (Jaeger, 1991). In our reading, morality in Aristotle is oriented towards happiness and the good life, accessible to the virtuous being who understands this divine metaphysical power.

On the other hand, as if making a synthesis, in the Middle Ages we observe the search for an integration between faith and reason, so that we note an important influence of Platonic thought on the formation of Christianity. In Augustine (354-430 AD), the human spirit is illuminated by God, who, through religious practices, directs the being towards the virtuous life, beatitude, and happiness (Augustine, 2000). The Platonic-Augustinian conception introduces the idea that human development is inseparable from the search for good and truth, anticipating the contemporary ideal of integral education with a spiritual dimension.

Similarly, Aristotelian thought found resonance in Christianity through Thomas Aquinas (1225-1274), who is based on Aristotelian metaphysics to relate human happiness to the divine. Divine law leads the being to the Christian life, guiding all other laws (Jaeger, 1991). In our perspective, this thought offers solid foundations for contemporary integral education, which seeks to form the human being in its totality: body, mind, and spirit.

a) The Modern Turn: Autonomy and Interiorization

With the advent of modernity, Kant (1724-1804) inaugurates a philosophical perspective by founding morality on autonomous reason, progressively detaching it from religion, but preserving its rational and universal dimension. The centrality of reason replaces the theocentric paradigm, shifting the axis of moral formation from faith to the autonomy of consciousness. According to Zanella (2008), in Kantian thought, morality and religion maintain a complex relationship: if morality reaches its fullness in the autonomy of practical reason, in religion, duties correspond to the will and divine commandments.

In our analysis, Kantian morality, although not founded on religious transcendence, expresses an ethical interiority close to what we understand as spirituality. In the educational sphere, this principle supports autonomous moral formation, essential for integral education, where spirituality manifests itself as the cultivation of consciousness and moral duty.

If in Kant morality emerges from autonomous reason, in Nietzsche (1844-1900), in turn, it shifts to

the creation of values from life. Both, however, share the defense of an internalized morality that places the human being as the foundation of ethical action. Nietzsche (1998; 2002; 2024) operates a rupture with universal moral philosophy, metaphysics, and Christianity, criticizing the "priestly caste" for fostering spiritual and social alienation. His declaration "God is dead! God remains dead! And we have killed him!" radically questions the foundations of traditional morality.

In our interpretation, Nietzsche does not discuss the existence of God in theological terms, but criticizes its moral and social function, especially when deity is used to dominate and alienate. His approach favors a humanist anthropocentrism, where the human being becomes the center of moral actions, autonomously constructing their history, consciousness, and values. In the educational field, this view enables an education based on freedom, forming beings capable of thinking critically and acting with authenticity.

In light of the above, we can conclude, considering Gerone (2015), that the increase in knowledge in modernity (17th-19th centuries), influenced by philosophies such as the Enlightenment and humanism, originated a new understanding of human experiences, including religiosity and spirituality. In our analysis, modernity promoted moral discussion beyond the religious and public context, making morality more autonomous in relation to religion (Duque, 2014). In this sense, we identify four fundamental dimensions of this transformation:

a) *The Symbolic:* According to Tillich (2005), the symbolic represents what touches the human being unconditionally, needing expression through symbols. In modernity, the symbolic assumes new forms of expression of the unconditional, generating new spiritualities and religious experiences.

b) *Language:* Modernity questions tradition aiming at new forms of knowledge. Through language, traditional beliefs, practices, and values are transformed and propagated (Locke, 1956). Reflection on language leads to secularism, opening space for free and critical spirituality.

c) *Secularism:* Through the influence of the Enlightenment and the French Revolution (1789-1799), the separation between Church and State is consolidated. Religion becomes a particular option, and it is up to the State to ensure the right to belief (Name, 2004). Secularism does not mean a State without belief, but the protection of religious rights in a democratic society.

d) *The Individual Dimension:* According to Bauman (2001), modernity focuses on individualism, with the "expansive autonomy" of the human being in relation to social institutions. Religiosity transcends the strictly religious aspect, synthesizing the moral dimension and encompassing the state of the spirit as an internalized transcendental connection (Gil, 1999).

In the face of these transformations, spirituality ceases to be an exclusively religious experience, becoming an existential dimension that manifests itself in art, science, ethics, and, especially, in education. The symbolic, as Tillich (2005) points out, remains a means of access to the unconditional, but with a more plural and open character. Integral education thus assumes the role of recomposing the unity between knowledge and being, reason and sensibility, learning and life.

Language, in this new horizon, becomes the mediator of spiritual and educational experience. According to Locke (1956), it is through language that we share beliefs and build values. In the context of integral education, language connects knowledge to sensibility and learning to ethical reflection, transforming the educational act into an experience of meaning.

Secularism, according to Name (2004), consolidates space for non-institutional, ethical, and humanist plural spirituality. Education, in this perspective, must be secular but not neutral regarding the spiritual dimension, recognizing that knowledge involves values and meanings, requiring the cultivation of universal values such as respect, empathy, and solidarity.

Finally, we note that modernity, by secularizing life and pluralizing faith, did not extinguish the spiritual, but shifted it to the interior of human experience. Integral education is inscribed as a privileged way of recomposing the unity between knowledge and being, knowledge and wisdom, autonomy and solidarity, transforming learning into a path of humanization and spirituality into a vital force that sustains the meaning of existence.

b) *A Look at the Latin American Reality: A Situated Contribution to Integral Education*

Although we recognize that this interiorization of the spiritual has consolidated fundamental advances such as moral autonomy and the valorization of subjectivity and individual freedom, it constitutes a predominantly Western and modern perspective that presents significant limitations. By centering the meaning of existence on reason and the interiority of the autonomous subject, modern thought tends to detach spirituality from the communal, symbolic, and territorial dimensions of human life. What previously united the human to the cosmos, nature, and the other was progressively reduced to individual consciousness and abstract rationality.

This limitation opens space for the emergence of new philosophical perspectives that, without denying the Western heritage, seek a spirituality grounded in belonging, collectivity, and the concrete experience of

daily life, restoring to ethics and education their symbolic and human rooting.

It is precisely in this context that Latin American philosophical thought emerges not as a negation of the European tradition, but as its critical re-elaboration, proposing a territorial and relational spirituality that reconnects the human being to the collective dimensions of life. This philosophy shifts the axis from interiority to symbolic and cultural belonging, reinserting spirituality into daily life and coexistence as a force of resistance, identity, and formation. This perspective is clearly manifested in indigenous worldviews and community practices that articulate body, territory, and transcendence.

In this sense, Rodolfo Kusch (1922-1979), an Argentine philosopher, anthropologist, and educator, dedicated himself to understanding what he called "deep America," in contrast to the America influenced by European models. For Kusch, understanding the Latin American human being implies valuing indigenous worldviews, popular religiosity, and symbolic ways of being in the world, which express a spirituality rooted in the territory, the collective, and daily life (Kusch, 1962; 1976). The author formulates the distinction between "being" (ser), related to the rational and abstract Western tradition, and "being-in-a-place" (estar), which represents the situated, relational, and symbolic mode of existence. From this difference emerges the concept of "being-being-in-a-place" (estar-sendo), which translates a spirituality of connection and lived experience, in opposition to the search for a fixed and universal identity.

Kuschian philosophy thus proposes a territorial and symbolic spirituality, in which the sacred emerges from belonging and coexistence, and not from metaphysical abstraction. This conception offers solid foundations for rethinking integral education as a process rooted in culture and territory, where knowledge is constituted as an expression of life and identity. Kusch (1976) argues that knowledge must emerge from the ground of concrete experiences and collective narratives. Education, in this perspective, must connect knowledge and life, body and spirit, reason and myth, articulating the cognitive, affective, and spiritual dimensions of the human being.

Researchers such as Pinheiro (2016) and Santos (2021) point out that Kusch anticipates contemporary debates on intercultural and integral education by proposing a school linked to living culture, capable of incorporating the symbolic and the sacred as legitimate parts of human formation. His philosophy questions technocratic and universalist educational policies that disregard the identity and spiritual bonds of local communities. By valuing "being-in-a-place" (estar) as a form of knowledge and existence, Kusch's thought enables an education that promotes belonging, meaning, and integrality, essential elements for human development and social justice.

IV. Final Considerations

The final considerations of this study revisit the essential question of human formation and the meaning of knowledge, synthesizing the integration between spirituality, morality, and ethics in the field of philosophy and education. The central objective was to demonstrate that these dimensions are complementary expressions of the human impulse to act ethically and coexist justly. The philosophical journey, which established a line of historical continuity (from Socratic paideia to territorial spirituality in Kusch), served as a backdrop for the analysis, allowing us to focus on how spirituality informs ethical formation and educational decisions, reconciling knowing and being, rationality and interiority.

The main theoretical contribution of this work lies in the proposition of a secular and formative spirituality that, by transcending the religious sphere, acts as an epistemological and ethical foundation for Integral Education. Differentiating itself from approaches that limit it to the mystical or psychological dimension, our interpretation defines it as an expanded form of knowledge that incorporates the intuitive, affective, and symbolic dimensions of human experience. This perspective fills a gap in the literature by offering a conceptual model that integrates spirituality as an active element in the epistemological and formative constitution of the human being, allowing education to rediscover its humanist and philosophical character, simultaneously rational and sensitive, cognitive and ethical, by recognizing knowledge as an integral process.

Our analysis shows that morality and ethics are articulated with this spirituality as foundations for coexistence and responsibility. Spirituality acts as an integrating dimension, giving meaning and purpose to human action, strengthening discernment, and enabling dialogue between different forms of knowledge and cultures.

The educational and practical implications of this integration are clear and can be translated into three axes of action for teacher training and pedagogical practice:

1. *Curricular Axis:* Capra's Systemic Perspective. Capra's systemic approach is revisited as the guiding principle for the curriculum. It demands the overcoming of disciplinary fragmentation and the adoption of an interdisciplinary curriculum that promotes ecological education and the consciousness of interdependence. This is the practical result for the organization of knowledge in schools.

2. *Teacher Training Axis:* Preparation for Human Complexity. Teacher training must be revised to contemplate the spiritual, moral, and ethical dimensions, preparing educators to welcome and mediate human complexity in the classroom. This is realized through the development of attentive presence and genuine listening (Spirituality as the foundation of the pedagogical relationship), which are essential for the quality of the pedagogical relationship.
3. *Pedagogical Practice Axis:* Ethical and Moral Principles. Pedagogical practice must be structured on clear principles:

Morality as Daily Practice: Focused on the collective construction of coexistence agreements and the dialogical resolution of conflicts, cultivating values such as empathy and cooperation.

Ethics as a Formative Horizon: Manifested in the stimulation of critical thinking and the problematization of contemporary moral dilemmas, reinforcing the importance of rational autonomy and ethical duty (Kant).

Contextualization and Authenticity: The valuing of freedom and authenticity (Nietzsche) must be balanced with the rooting of practices in the cultural territory and the concrete experiences of students (Kusch), ensuring the relevance of the educational action.

In summary, integrating spirituality, morality, and ethics into educational reflection and practice means recovering the original role of philosophy and education: to form conscious, critical, and committed subjects for the common good. This integration enables significant pedagogical practices that connect academic learning with the construction of meaningful life projects, culminating in the formation not only of competent students but of full, ethical, and spiritually committed human beings for social transformation. The study, therefore, not only reiterates the relevance of these dimensions but offers a conceptual and practical model for their implementation in the context of Integral Education.

Finally, philosophical research on spirituality and morality proves to be a fertile ground for new investigations and pedagogical practices capable of articulating reason and sensibility, knowledge and wisdom, theory and life—forming not only competent and competitive students, but full, ethical, and spiritually committed human beings for social transformation.

References Références Referencias

1. Agostinho, S. (2000). *A cidade de Deus* (2nd ed.). Fundação Calouste Gulbenkian.
2. Bauman, Z. (2001). *Modernidade líquida*. Jorge Zahar Editor.
3. Capra, F. (1996). The web of life: A new scientific understanding of living systems. Anchor Books.
4. Capra, F., & Luisi, P. L. (2014). *The systems view of life: A unifying vision*.Cambridge University Press.
5. Cortina, A., & Martínez, E. (2005). *Ética*. Loyola.
6. Duque, M. (2014). *Mudanças culturais, mudanças religiosas: perfis e tendências da religiosidade em Portugal numa perspectiva comparada*. Edições Húmus. https://hdl.handle.net/1822/75082
7. Dutra, T., & Moll, J. (2017). Educação integral e espiritualidade: os benefícios dessa relação para uma formação integral do ser humano. *Revista Prática Docente*, *2*(1), 97–111. DOI: https://doi.org/10.23926/rpd.v2i1.48
8. Gerone, L. G. T. de. (2015). *Um olhar sobre a religiosidade/espiritualidade na prática do cuidado entre profissionais de saúde e pastoralistas* [Master 's thesis, Pontifícia Universidade Católica do Paraná]. https://archivum.grupomarista.org.br/pergamumweb/vinculos/tede/lucas.pdf
9. Gerone, L. G. T. de. (2025). *Percepções docentes sobre espiritualidade, moralidade e educação: uma abordagem interdisciplinar a partir de Kohlberg e Weber* [Doctoral thesis, Universidade Estadual Paulista]. https://hdl.handle.net/11449/310892
10. Gil Filho, S. F. (1999). Espaço de representação e territorialidade do sagrado: notas para uma teoria do fato religioso. *RAEGA – O Espaço Geográfico Em Análise, 3(3)*, 91–120. DOI: https://doi.org/10.5380/raega.v3i0.18226
11. Jaeger, W. (2001). *Paideia: A formação do homem grego*. São Paulo: Martins Fontes.
12. Kant, I. (2004). *Fundamentação da metafísica dos costumes e outros escritos*. São Paulo: Martin Claret.
13. Kusch, R. (1962). *América profunda*. Buenos Aires: Editorial Hachette.
14. Kusch, R. (1976). *Geocultura del hombre americano*. Buenos Aires: Fernando García Cambeiro.
15. Locke, J. (1956). *An essay concerning human understanding*. Great Books of the Western World (Vol. 35). Chicago: Encyclopaedia Britannica.
16. Name, P. C. (2004). *A liberdade de crença religiosa na Constituição Federal de 1988* [Master's thesis, Pontifícia Universidade Católica de São Paulo]. https://tede2.pucsp.br/handle/handle/7881
17. Nietzsche, F. (2002). *A gaia ciência*. São Paulo: Companhia das Letras.
18. Nietzsche, F. (1998). *Genealogia da moral: Uma polêmica*. São Paulo: Companhia das Letras.
19. Nietzsche, F. (2024). *O nascimento da tragédia*. Edições 70.
20. Pinheiro, B. (2016). O pensamento de Rodolfo Kusch: movimentos seminais na América profunda. Revista Científica de Educação a Distância, 16(35), 155–172.
21. Platão. (1999). *Diálogos*. São Paulo: Nova Cultural.

22. Santos, G. A. O. (2021). Contribuições de Kusch para a educação, cultura e vida escolar. *Revista Contemporânea de Educação, Ahead of Print*. DOI: https://doi.org/10.20500/rce.v16i36.42924
23. Tillich, P. (2005). *Teologia sistemática: Três volumes em um* (5th ed.). São Leopoldo: Sinodal.
24. Trabulsi, J. A. D. (1993). Religião e política na Grécia, das origens até a pólis aristocrática. *Classica – Revista Brasileira de Estudos Clássicos, 5(1)*, 133–147. https://doi.org/10.24277/classica.v5i1.550
25. Zanella, D. C. (2008). Moral e religião em Kant. Porto Alegre: *Intuitio, 1(2)*, 89–105. Recuperado de: https://revistaseletronicas.pucrs.br/intuitio/article/view/3998

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Memberships

Fellows/Associates of Social Science Research Council

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Associates of FSSRC/ASSRC are scientists and researchers from around the world are working on projects/researches that have huge potentials. Members support Global Journals' mission to advance technology for humanity and the profession.

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Acknowledgments

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- The names of first main headings (Heading 1) must be in Roman font, capital letters, and font size of 10.
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The recommended size of an original research paper is under 15,000 words and review papers under 7,000 words. Research articles should be less than 10,000 words. Research papers are usually longer than review papers. Review papers are reports of significant research (typically less than 7,000 words, including tables, figures, and references)

A research paper must include:

a) A title which should be relevant to the theme of the paper.
b) A summary, known as an abstract (less than 150 words), containing the major results and conclusions.
c) Up to 10 keywords that precisely identify the paper's subject, purpose, and focus.
d) An introduction, giving fundamental background objectives.
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f) Results which should be presented concisely by well-designed tables and figures.
g) Suitable statistical data should also be given.
h) All data must have been gathered with attention to numerical detail in the planning stage.

Design has been recognized to be essential to experiments for a considerable time, and the editor has decided that any paper that appears not to have adequate numerical treatments of the data will be returned unrefereed.

i) Discussion should cover implications and consequences and not just recapitulate the results; conclusions should also be summarized.
j) There should be brief acknowledgments.
k) There ought to be references in the conventional format. Global Journals recommends APA format.

Authors should carefully consider the preparation of papers to ensure that they communicate effectively. Papers are much more likely to be accepted if they are carefully designed and laid out, contain few or no errors, are summarizing, and follow instructions. They will also be published with much fewer delays than those that require much technical and editorial correction.

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The full postal address of any related author(s) must be specified.

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The abstract is the foundation of the research paper. It should be clear and concise and must contain the objective of the paper and inferences drawn. It is advised to not include big mathematical equations or complicated jargon.

Many researchers searching for information online will use search engines such as Google, Yahoo or others. By optimizing your paper for search engines, you will amplify the chance of someone finding it. In turn, this will make it more likely to be viewed and cited in further works. Global Journals has compiled these guidelines to facilitate you to maximize the web-friendliness of the most public part of your paper.

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A major lynchpin of research work for the writing of research papers is the keyword search, which one will employ to find both library and internet resources. Up to eleven keywords or very brief phrases have to be given to help data retrieval, mining, and indexing.

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Numerical methods used should be transparent and, where appropriate, supported by references.

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Authors are advised to submit any mathematical equation using either MathJax, KaTeX, or LaTeX, or in a very high-quality image.

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16. Multitasking in research is not good: Doing several things at the same time is a bad habit in the case of research activity. Research is an area where everything has a particular time slot. Divide your research work into parts, and do a particular part in a particular time slot.

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19. Think technically: Always think technically. If anything happens, search for its reasons, benefits, and demerits. Think and then print: When you go to print your paper, check that tables are not split, headings are not detached from their descriptions, and page sequence is maintained.

20. Adding unnecessary information: Do not add unnecessary information like "I have used MS Excel to draw graphs." Irrelevant and inappropriate material is superfluous. Foreign terminology and phrases are not apropos. One should never take a broad view. Analogy is like feathers on a snake. Use words properly, regardless of how others use them. Remove quotations. Puns are for kids, not grunt readers. Never oversimplify: When adding material to your research paper, never go for oversimplification; this will definitely irritate the evaluator. Be specific. Never use rhythmic redundancies. Contractions shouldn't be used in a research paper. Comparisons are as terrible as clichés. Give up ampersands, abbreviations, and so on. Remove commas that are not necessary. Parenthetical words should be between brackets or commas. Understatement is always the best way to put forward earth-shaking thoughts. Give a detailed literary review.

21. Report concluded results: Use concluded results. From raw data, filter the results, and then conclude your studies based on measurements and observations taken. An appropriate number of decimal places should be used. Parenthetical remarks are prohibited here. Proofread carefully at the final stage. At the end, give an outline to your arguments. Spot perspectives of further study of the subject. Justify your conclusion at the bottom sufficiently, which will probably include examples.

22. Upon conclusion: Once you have concluded your research, the next most important step is to present your findings. Presentation is extremely important as it is the definite medium though which your research is going to be in print for the rest of the crowd. Care should be taken to categorize your thoughts well and present them in a logical and neat manner. A good quality research paper format is essential because it serves to highlight your research paper and bring to light all necessary aspects of your research.

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Informal Guidelines of Research Paper Writing

Key points to remember:

- Submit all work in its final form.
- Write your paper in the form which is presented in the guidelines using the template.
- Please note the criteria peer reviewers will use for grading the final paper.

Final points:

One purpose of organizing a research paper is to let people interpret your efforts selectively. The journal requires the following sections, submitted in the order listed, with each section starting on a new page:

The introduction: This will be compiled from reference matter and reflect the design processes or outline of basis that directed you to make a study. As you carry out the process of study, the method and process section will be constructed like that. The results segment will show related statistics in nearly sequential order and direct reviewers to similar intellectual paths throughout the data that you gathered to carry out your study.

The discussion section:

This will provide understanding of the data and projections as to the implications of the results. The use of good quality references throughout the paper will give the effort trustworthiness by representing an alertness to prior workings.

Writing a research paper is not an easy job, no matter how trouble-free the actual research or concept. Practice, excellent preparation, and controlled record-keeping are the only means to make straightforward progression.

General style:

Specific editorial column necessities for compliance of a manuscript will always take over from directions in these general guidelines.

To make a paper clear: Adhere to recommended page limits.

Mistakes to avoid:

- Insertion of a title at the foot of a page with subsequent text on the next page.
- Separating a table, chart, or figure—confine each to a single page.
- Submitting a manuscript with pages out of sequence.
- In every section of your document, use standard writing style, including articles ("a" and "the").
- Keep paying attention to the topic of the paper.
- Use paragraphs to split each significant point (excluding the abstract).
- Align the primary line of each section.
- Present your points in sound order.
- Use present tense to report well-accepted matters.
- Use past tense to describe specific results.
- Do not use familiar wording; don't address the reviewer directly. Don't use slang or superlatives.
- Avoid use of extra pictures—include only those figures essential to presenting results.

Title page:

Choose a revealing title. It should be short and include the name(s) and address(es) of all authors. It should not have acronyms or abbreviations or exceed two printed lines.

Abstract: This summary should be two hundred words or less. It should clearly and briefly explain the key findings reported in the manuscript and must have precise statistics. It should not have acronyms or abbreviations. It should be logical in itself. Do not cite references at this point.

An abstract is a brief, distinct paragraph summary of finished work or work in development. In a minute or less, a reviewer can be taught the foundation behind the study, common approaches to the problem, relevant results, and significant conclusions or new questions.

Write your summary when your paper is completed because how can you write the summary of anything which is not yet written? Wealth of terminology is very essential in abstract. Use comprehensive sentences, and do not sacrifice readability for brevity; you can maintain it succinctly by phrasing sentences so that they provide more than a lone rationale. The author can at this moment go straight to shortening the outcome. Sum up the study with the subsequent elements in any summary. Try to limit the initial two items to no more than one line each.

Reason for writing the article—theory, overall issue, purpose.

- Fundamental goal.
- To-the-point depiction of the research.
- Consequences, including definite statistics—if the consequences are quantitative in nature, account for this; results of any numerical analysis should be reported. Significant conclusions or questions that emerge from the research.

Approach:

- Single section and succinct.
- An outline of the job done is always written in past tense.
- Concentrate on shortening results—limit background information to a verdict or two.
- Exact spelling, clarity of sentences and phrases, and appropriate reporting of quantities (proper units, important statistics) are just as significant in an abstract as they are anywhere else.

Introduction:

The introduction should "introduce" the manuscript. The reviewer should be presented with sufficient background information to be capable of comprehending and calculating the purpose of your study without having to refer to other works. The basis for the study should be offered. Give the most important references, but avoid making a comprehensive appraisal of the topic. Describe the problem visibly. If the problem is not acknowledged in a logical, reasonable way, the reviewer will give no attention to your results. Speak in common terms about techniques used to explain the problem, if needed, but do not present any particulars about the protocols here.

The following approach can create a valuable beginning:

- Explain the value (significance) of the study.
- Defend the model—why did you employ this particular system or method? What is its compensation? Remark upon its appropriateness from an abstract point of view as well as pointing out sensible reasons for using it.
- Present a justification. State your particular theory(-ies) or aim(s), and describe the logic that led you to choose them.
- Briefly explain the study's tentative purpose and how it meets the declared objectives.

Approach:

Use past tense except for when referring to recognized facts. After all, the manuscript will be submitted after the entire job is done. Sort out your thoughts; manufacture one key point for every section. If you make the four points listed above, you will need at least four paragraphs. Present surrounding information only when it is necessary to support a situation. The reviewer does not desire to read everything you know about a topic. Shape the theory specifically—do not take a broad view.

As always, give awareness to spelling, simplicity, and correctness of sentences and phrases.

Procedures (methods and materials):

This part is supposed to be the easiest to carve if you have good skills. A soundly written procedures segment allows a capable scientist to replicate your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order, but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt to give the least amount of information that would permit another capable scientist to replicate your outcome, but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section.

When a technique is used that has been well-described in another section, mention the specific item describing the way, but draw the basic principle while stating the situation. The purpose is to show all particular resources and broad procedures so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step-by-step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

Materials may be reported in part of a section or else they may be recognized along with your measures.

Methods:

- Report the method and not the particulars of each process that engaged the same methodology.
- Describe the method entirely.
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures.
- Simplify—detail how procedures were completed, not how they were performed on a particular day.
- If well-known procedures were used, account for the procedure by name, possibly with a reference, and that's all.

Approach:

It is embarrassing to use vigorous voice when documenting methods without using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result, when writing up the methods, most authors use third person passive voice.

Use standard style in this and every other part of the paper—avoid familiar lists, and use full sentences.

What to keep away from:

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings—save it for the argument.
- Leave out information that is immaterial to a third party.

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part as entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Use statistics and tables, if suitable, to present consequences most efficiently.

You must clearly differentiate material which would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matters should not be submitted at all except if requested by the instructor.

Content:

- Sum up your conclusions in text and demonstrate them, if suitable, with figures and tables.
- In the manuscript, explain each of your consequences, and point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation of an exacting study.
- Explain results of control experiments and give remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or manuscript.

What to stay away from:

- Do not discuss or infer your outcome, report surrounding information, or try to explain anything.
- Do not include raw data or intermediate calculations in a research manuscript.
- Do not present similar data more than once.
- A manuscript should complement any figures or tables, not duplicate information.
- Never confuse figures with tables—there is a difference.

Approach:

As always, use past tense when you submit your results, and put the whole thing in a reasonable order.

Put figures and tables, appropriately numbered, in order at the end of the report.

If you desire, you may place your figures and tables properly within the text of your results section.

Figures and tables:

If you put figures and tables at the end of some details, make certain that they are visibly distinguished from any attached appendix materials, such as raw facts. Whatever the position, each table must be titled, numbered one after the other, and include a heading. All figures and tables must be divided from the text.

Discussion:

The discussion is expected to be the trickiest segment to write. A lot of papers submitted to the journal are discarded based on problems with the discussion. There is no rule for how long an argument should be.

Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implications of the study. The purpose here is to offer an understanding of your results and support all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of results should be fully described.

Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact, you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved the prospect, and let it drop at that. Make a decision as to whether each premise is supported or discarded or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."

Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work.

- You may propose future guidelines, such as how an experiment might be personalized to accomplish a new idea.
- Give details of all of your remarks as much as possible, focusing on mechanisms.
- Make a decision as to whether the tentative design sufficiently addressed the theory and whether or not it was correctly restricted. Try to present substitute explanations if they are sensible alternatives.
- One piece of research will not counter an overall question, so maintain the large picture in mind. Where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

When you refer to information, differentiate data generated by your own studies from other available information. Present work done by specific persons (including you) in past tense.

Describe generally acknowledged facts and main beliefs in present tense.

The Administration Rules

Administration Rules to Be Strictly Followed before Submitting Your Research Paper to Global Journals Inc.

Please read the following rules and regulations carefully before submitting your research paper to Global Journals Inc. to avoid rejection.

Segment draft and final research paper: You have to strictly follow the template of a research paper, failing which your paper may get rejected. You are expected to write each part of the paper wholly on your own. The peer reviewers need to identify your own perspective of the concepts in your own terms. Please do not extract straight from any other source, and do not rephrase someone else's analysis. Do not allow anyone else to proofread your manuscript.

Written material: You may discuss this with your guides and key sources. Do not copy anyone else's paper, even if this is only imitation, otherwise it will be rejected on the grounds of plagiarism, which is illegal. Various methods to avoid plagiarism are strictly applied by us to every paper, and, if found guilty, you may be blacklisted, which could affect your career adversely. To guard yourself and others from possible illegal use, please do not permit anyone to use or even read your paper and file.

Criterion for Grading a Research Paper (Compilation) by Global Journals

Please note that following table is only a Grading of "Paper Compilation" and not on "Performed/Stated Research" whose grading solely depends on Individual Assigned Peer Reviewer and Editorial Board Member. These can be available only on request and after decision of Paper. This report will be the property of Global Journals

Topics	Grades		
	A-B	**C-D**	**E-F**
Abstract	Clear and concise with appropriate content, Correct format. 200 words or below	Unclear summary and no specific data, Incorrect form Above 200 words	No specific data with ambiguous information Above 250 words
Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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