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INNOVATIVE PEDAGOGICAL
PRACTICES GUIDE



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Departamento de
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GOVERNO DO ESTADO
RIO DE JANEIRO

Organization: Carla Caroline Lopes, Carla Uller, Fábio Meirelles, Fernanda Sarmiento, Josy Fischberg, Karina Trotta, Roan Saraiva [organization]

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Innovative Pedagogical Practices Guide

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INNOVATIVE PEDAGOGICAL PRACTICES GUIDE



Secretaria de
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e Esportes



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Secretaria de
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OI FUTURO

OPEN INNOVATION WITHIN EVERYONE'S REACH

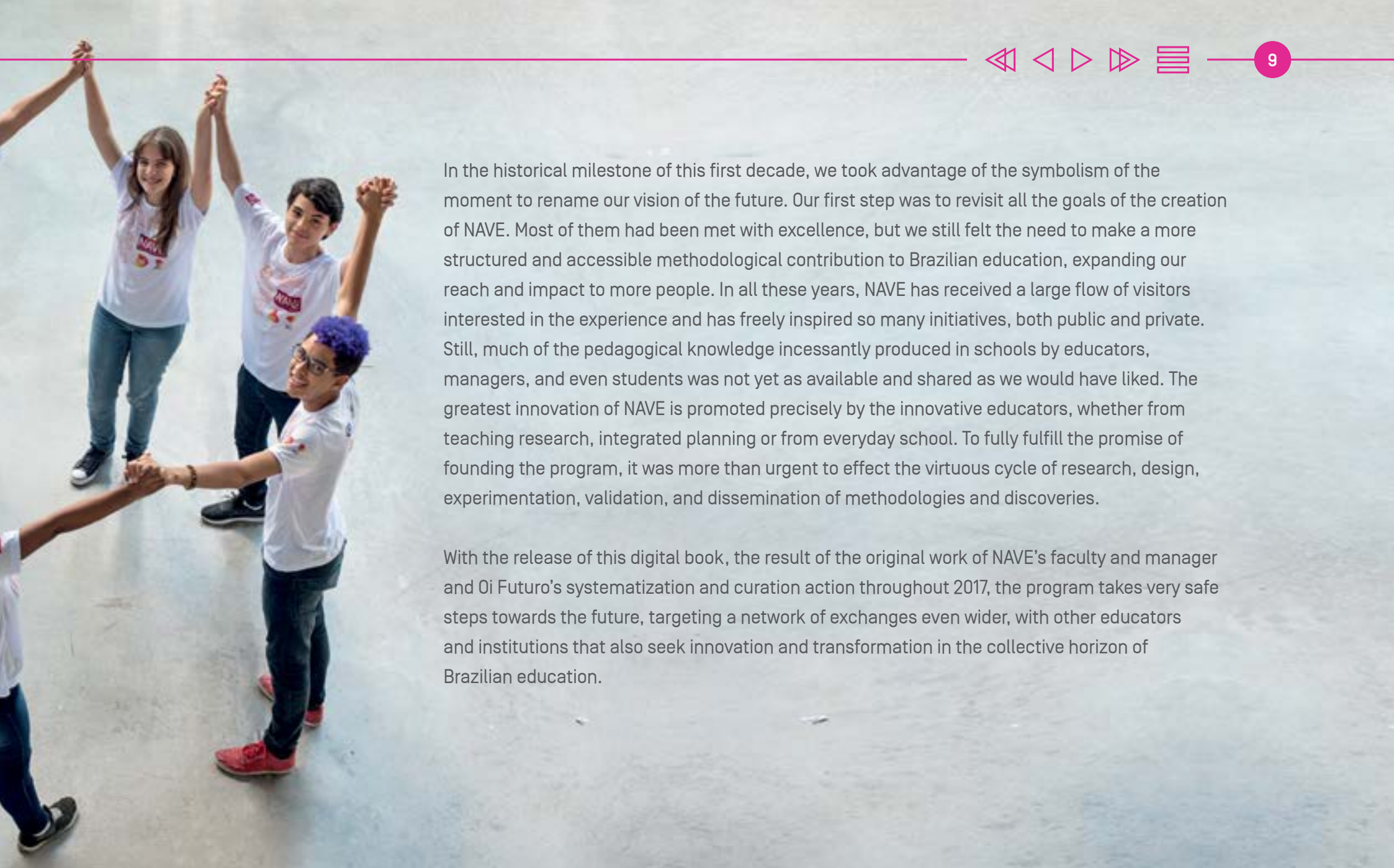
SUZANA SANTOS

PRESIDENT OF OI FUTURO AND DIRECTOR
OF CORPORATE COMMUNICATION FOR OI

In 2016, we celebrated the 10th anniversary of the inauguration of the first school of the NAVE program, an unprecedented public-private partnership between Oi Futuro (Oi Institute) and the Pernambuco and Rio de Janeiro Departments of Education. After a decade of experience, which began in Recife and soon extended to Rio, we had contributed to the formation, both human and technical, of over two thousand kids. We accounted for an intense creative production of students, including games, applications, movies, animations and other digital and editorial projects. And we still had a significant number of awards and recognitions that highlighted the innovative character of the program.

In the top public educational evaluation rankings, NAVE schools led the top positions in their respective state networks year after year. With the combination of interdimensional education, favorable infrastructure, and creative stimulation, the program soon became a source of transformation stories. From it, kids who were able not only to change their own realities but also make a difference to the rest of society resulted.





In the historical milestone of this first decade, we took advantage of the symbolism of the moment to rename our vision of the future. Our first step was to revisit all the goals of the creation of NAVE. Most of them had been met with excellence, but we still felt the need to make a more structured and accessible methodological contribution to Brazilian education, expanding our reach and impact to more people. In all these years, NAVE has received a large flow of visitors interested in the experience and has freely inspired so many initiatives, both public and private. Still, much of the pedagogical knowledge incessantly produced in schools by educators, managers, and even students was not yet as available and shared as we would have liked. The greatest innovation of NAVE is promoted precisely by the innovative educators, whether from teaching research, integrated planning or from everyday school. To fully fulfill the promise of founding the program, it was more than urgent to effect the virtuous cycle of research, design, experimentation, validation, and dissemination of methodologies and discoveries.

With the release of this digital book, the result of the original work of NAVE's faculty and manager and Oi Futuro's systematization and curation action throughout 2017, the program takes very safe steps towards the future, targeting a network of exchanges even wider, with other educators and institutions that also seek innovation and transformation in the collective horizon of Brazilian education.

PERNAMBUCO STATE
DEPARTMENT OF EDUCATION

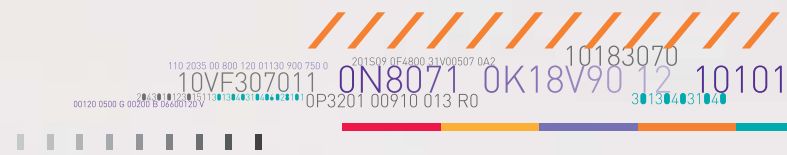
A SCHOOL OF THE FUTURE

FRED AMANCIO
PERNAMBUCO STATE SECRETARY
OF EDUCATION

Let's talk about a different school. A school where students have different curriculum and teachers, modern programming classes, computers and labs; where students have contact with robotics, they create their own games and applications. A school focused on the vocational training of kids and fully is connected with the area of Information Technology (IT). The extraordinary Cícero Dias Technical High School/NAVE Recife, since the beginning of its activities, has an important private partner that allowed the teaching unit to reach a level of excellence, further strengthening the state and technical education of the state public network. The partnership, formalized between the Pernambuco Department of Education and Oi Futuro, through the NAVE Program (Advanced Education Center), and the Recife Center for Advanced Studies and Systems (CESAR), further strengthened the use of technology as a pedagogical tool in the state Technical Education and allowed the development of the students beyond the academic formation. From the perspective of youth leadership, one of the premises of 370 full-time schools in Pernambuco, students are also encouraged, early on, to build their life projects.

Today's experiences at school, such as the NAVE de Portas Abertas [Open Doors NAVE] project, where students introduce the school and its numerous projects to the community, show how youth leadership offers kids the opportunity to guide and motivate success stories with education as the main foundation.

The successful practices carried out by the Cícero Dias Technical High School/NAVE Recife, such as the participation of students in national and international competitions, such as Animage, Anima Mundi, Technovation Challenge, show that the important union of efforts between public and private entities in favor of better quality and fairer public education builds bridges of opportunity, transforms dreams into reality, prepares kids for the future, and strengthens education.



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CÍCERO DIAS TECHNICAL HIGH
SCHOOL | NAVE RECIFE

LEARN TO DO, LIVE AND BE

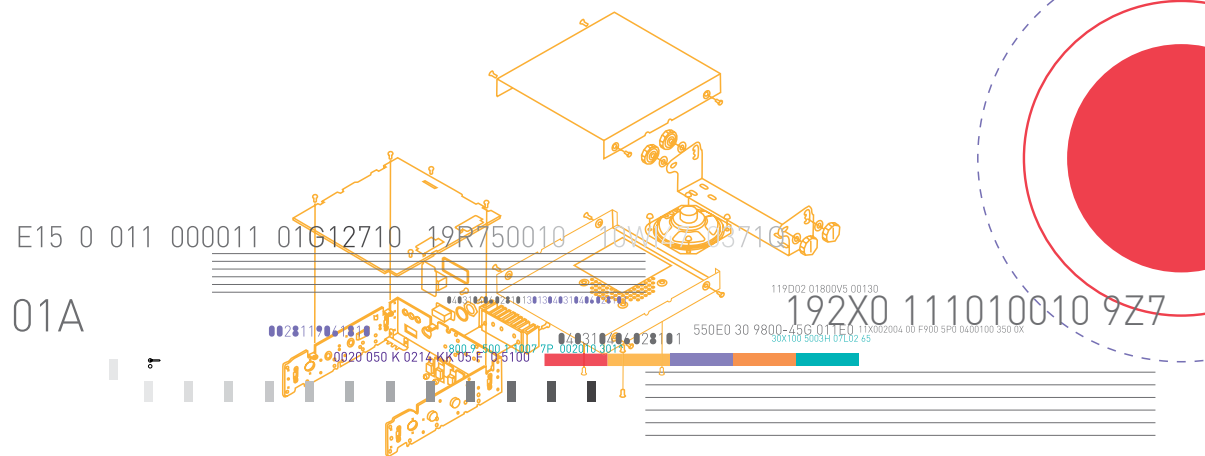
ALDINEIDE DE QUEIROZ
DIRECTOR

**CLAUDIO ROBERTO
DO NASCIMENTO**
JOINT MANAGING DIRECTOR

Long focused almost exclusively on learning to know [acquiring tools of knowledge], the school often failed to create and innovate being considered, and therefore criticized, an anachronistic social institution, especially in the face of the wills and energies of educators and students, to the social demands of a globalizing and constantly changing world. In various perspectives and views, the importance of the school has been discussed as a training institution not only of school knowledge, but also social and cultural, thus integrating and exercising learning to do, learning to live and learning to be. An innovative and creative school that transforms knowledge, from practical reality, into actions full of youthful wills and pedagogical joys in permanent construction of the autonomy of educators and students in their leadership, always attentive to the issue of workability, the various methodologies, the pedagogical practices, the uses of technologies and, indispensably, careful with the complex process of humanization. In this sense, we find at Cícero Dias Technical High School / NAVE Recife, in partnership with Oi Futuro, through the Advanced Education Center [NAVE], this innovative school that produces new meanings and definitions for the educational experiences lived by its various educational actors [students and educators]. Creating, innovating, reframing methodologies and practices based on educational experiences are fundamental assumptions of this partnership that empowers and enhances the public high school of excellence as a research and innovation center. As a center for sharing, the school maintains a continuous process that evaluates, systematizes and definitively makes the productions of educators and students public. In this process of constant systematization, we find the statements,

experiences, conceptions and knowledge of these educators constituting perceptibly throughout the historical, social and cultural space-time in their social interactions, especially with students.

The Cícero Dias Technical High School / NAVE Recife, based on interdimensional education, from the perspective of human rights education and the joy and pedagogical responsibility that is intrinsic to it, presents to you, the reader, the pedagogical practices built and lived in classes, activities and projects carried out with all the human affection and care found in the goodness that exists to educate.





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RIO DE JANEIRO STATE
DEPARTMENT OF EDUCATION

FROM NAVE TO THE ENTIRE NETWORK

WAGNER VICTER
SECRETARY OF RIO DE JANEIRO
STATE EDUCATION

The Rio de Janeiro State Department of Education is proud to have consolidated its partnership with Oi Futuro in the NAVE [Advanced Education Center] Program - José Leite Lopes State High School. The school unit offers, in addition to an excellent quality education, the opportunity to use the most varied technologies in a simple and creative way that favors the learning of our young students. High School Integrated Vocational Education in Digital Game Programming, Multimedia and Digital Media Screenwriting offers young students experiences that can change their stories and broaden their horizons. Amid books, texts, machines, scripts, games and multimedia, students stand out. They are the leaders, being able to act as programmers, writers, designers for TV, internet, mobile, electronic games, among other activities. And they do it with creativity, identity and skill. The content presented here does not bring practices created only from academic knowledge, but from the experience of innovations that are available to network professionals. The transfer of NAVE's educational technologies beyond schools marks this phase of the project: the methodology that takes shape within these institutions may be part of other state education network routines.

The choices of these kids, champions of results in the state of Rio de Janeiro, will certainly have the direct influence of institutions that value their personal and social development and offer them conditions for the full development of their citizenship with equity and commitment. It is the best quality public education offered to those in need, developed as a strong investment by the State Government. From the point of view of the experiences gained

in this partnership and working with this pedagogical model, we developed the “Full Time High School with Emphasis on Entrepreneurship”, with implementation in about 80 schools in various municipalities of the state. This proposal was initially guided by the activities of the José Leite Lopes State High School in Rio de Janeiro. I hope that the experiences reported in this book by its main actors will be very well used. In them, the leadership of the students, allied to the committed work of the teachers, trains creative kids, entrepreneurs, attuned and better prepared to put their life projects into practice. Comprehensive education, developed in a planned and methodical manner, provides more than preparation for the world of work. It gives the opportunity to make life choices and to graduate as a citizen of the future.



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JOSÉ LEITE LOPES STATE HIGH
SCHOOL/NAVE RIO

LOOKING FOR UNKNOWN ISLANDS

KARLA ANDRADE

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JOINT MANAGING DIRECTOR

SILVANA ALMEIDA

JOINT MANAGING DIRECTOR

DANIEL GAIVOTA

JOINT MANAGING DIRECTOR

NAVE, like any ship, is a drifting vehicle. Sail the sea, the air or even the land, a ship is subject to the enjoyment [and knowledge] of the journey. The real voyage comes when sailors realize that untapped routes make for more powerful movements. When they realize that the hidden paths, though often dangerous, are the ones that can make them experience an adventure.

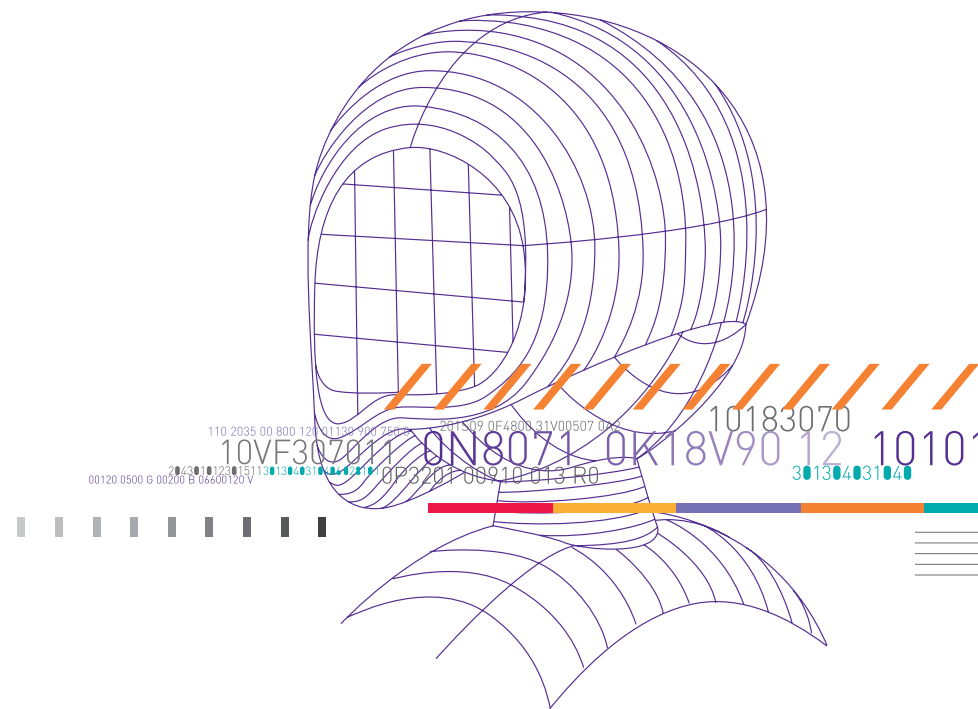
The word experience, which is so important for education, comes from the Latin *experiri*, whose root is *periri*, also present in *periculum*, danger. The Indo-European root *per* [present in “perimeter”, for example] relates to the idea of crossing. Every experience involves going through danger.

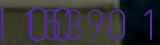
The experience of becoming an adventurer, therefore, has to do with overcoming the fear of making mistakes and exploring the unknown, inventing. In the Greco-Latin languages there is a very beautiful word that carries with it this journey: *Peiratese*, or, in Portuguese, pirate. The ship is currently discovering a pirate ship.

A boat that launches itself into the unknown without fear of error, without fear of daring and inventing a new way of educating in this social and political moment of such frightening storms. But it is a pirate ship only on the outside, for instead of plundering other vessels, NAVE embodies the mission of bringing to them the greatest treasure it has accumulated

in these ten years of sailing: an adventurous spirit, courage, enchantment and passion that will allow any boat to launch looking for unknown islands.

This book, therefore, can be considered a kind of navigational chart, which does not teach navigating but maps, points out other possible cardinal points to ships that also decide to leave the dock and get a taste of the drift. The recommendation we offer in time is that sailors about to venture in search of these coordinates, these hidden treasures, invent their own paths. Allow your ships to leave port security and be transformed by the waves of the world. That they can do, in their crossings, what the very word Education [ex-ducere] itself suggests in its etymology: to take away.



[illegible]

C.E.S.A.R SCHOOL

INNOVATION CULTURE

FELIPE FURTADO

CHIEF EXECUTIVE OF EDUCATION AT
CESAR SCHOOL

JULIANA ARARIPE

EDUCATIONAL ANALYST AT CESAR SCHOOL

Since 2006, the CESAR School has had the opportunity to contribute to Oi Futuro and the State Departments of Education of Pernambuco and Rio de Janeiro to build a high school model connected to our time and responsive to the needs of Brazilian society. It was with the expertise of those who had been producing technological innovation for over ten years that we arrived at NAVE. Involved in a project that worked from three dimensions of change - content, methods and management - we took a little of the innovation culture of CESAR workspaces to the educational spaces of José Leite Lopes State High School/ NAVE Rio and Cícero Dias Technical High School/NAVE Recife. Always anchored on a tripod that involves the integration between High School and Vocational Education, a Research and Innovation Center and a Dissemination Center, we have learned to design scenarios and methods that transpose professional practices and skills aligned with society and market trends, anticipating current discourses on 21st century skills. In this course, many learnings were developed. We believe in the potential that NAVE has to inspire other projects and contribute to the transformation of Brazilian education. Many of these learnings, by the way, were shared on different communication channels, such as television, magazines and periodicals.

Today, we talk about the task of sharing these experiences and the detailed work of systematizing the practices developed along the lines that we have presented here. Systematizing experiences is more than sharing them. By systematizing them, we are also plunging into a profound process of knowledge building and creation of new knowledge. With

the important task of rediscovering the experience, moving away from it to understand it and communicating it so that others can relive it, even in parts, even in a new construction. Thus, we wish that all who have access to this material can enjoy, with the same intensity with which we feel, the desire for transformation and the desire to innovate the educational experiences lived in their training spaces in the most different places of our country.

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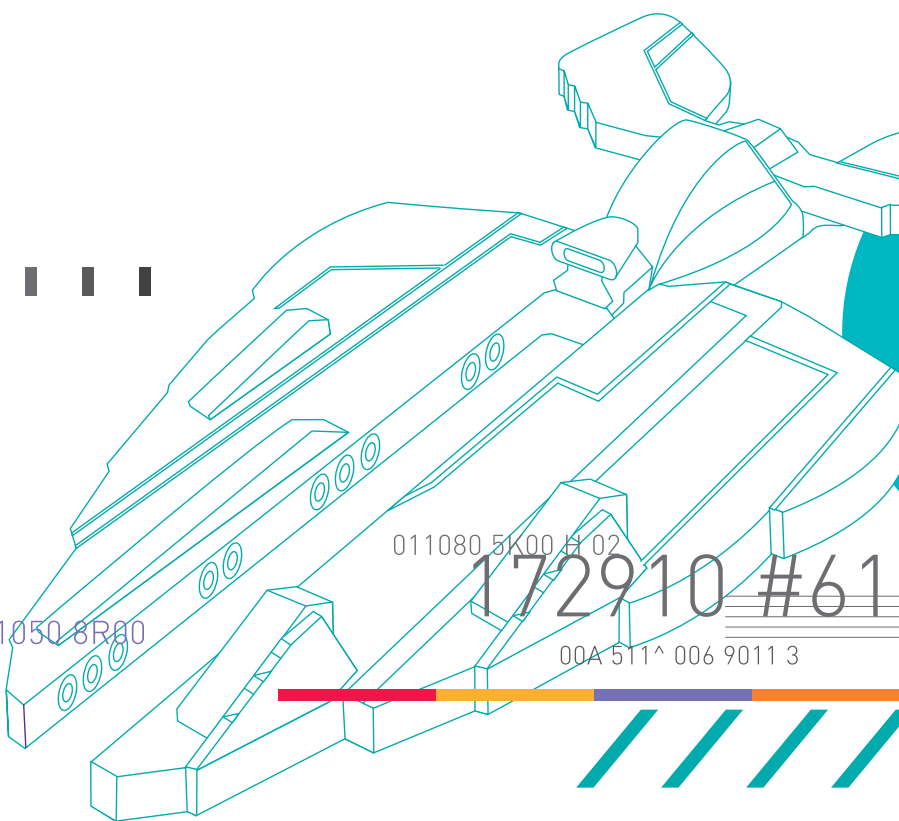
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PLANETAPONTOCOM

DISSEMINATE, THE TIME HAS ARRIVED

SILVANA GONTIJO

PLANETAPONTOCOM CEO

When we were invited by Instituto Telemar, which today is Oi Futuro, to participate in the creation of a Vocational High School in Recife, we could hardly imagine the results that this book would present.

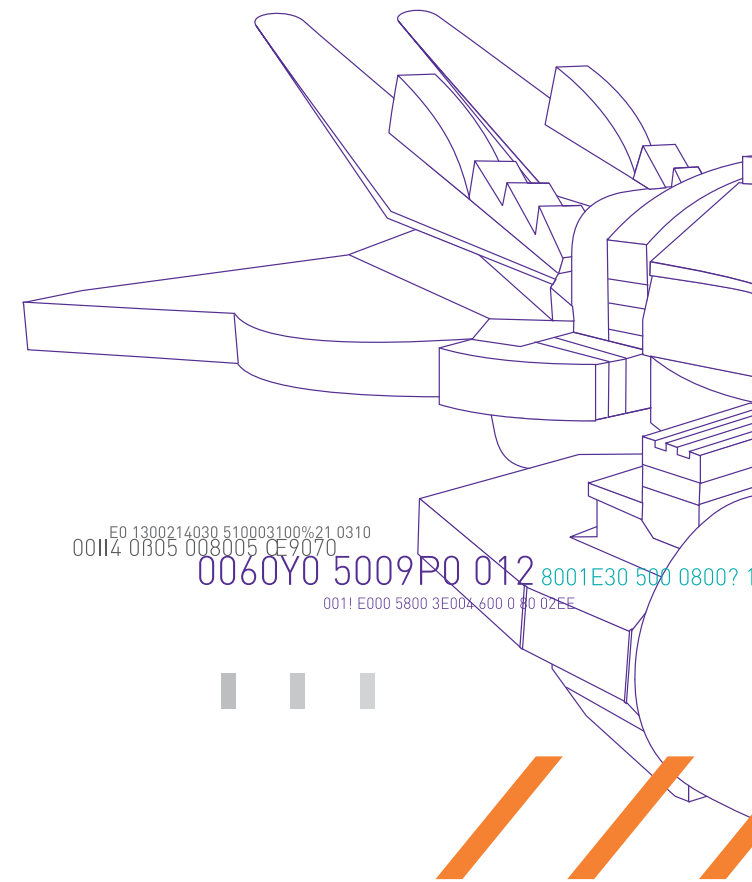
Cícero Dias Technical High School/NAVE Recife was inaugurated in March 2006 and its main unique features were the matrices of Interdimensional Education and Mid-education, two fields of knowledge that advocate a pedagogy based on social and emotional skills, with emphasis on interpersonal and media communication. In partnership and with the guidance of our late Antonio Carlos Gomes da Costa, the planetapontocom team was challenged to formulate a model of action that would guide the teaching and management practices necessary to structure the school we wanted. And so it was done. We created the MDE - Space for Media Education and modeled its performance by understanding that educating is forming individuals and social groups able to exercise their citizenship in a complex and multifaceted world of communication. We brought the exercise of communication and the appropriation of different media and languages to the educational action. We were already convinced at that time that media education methodologies are powerful tools for promoting meaningful and contextualized learning. For this, we create and produce a series of teaching and learning objects.

In 2007, we joined the founding group of the José Leite Lopes State High School in Rio de Janeiro, where we moved forward with the educational management of communication and

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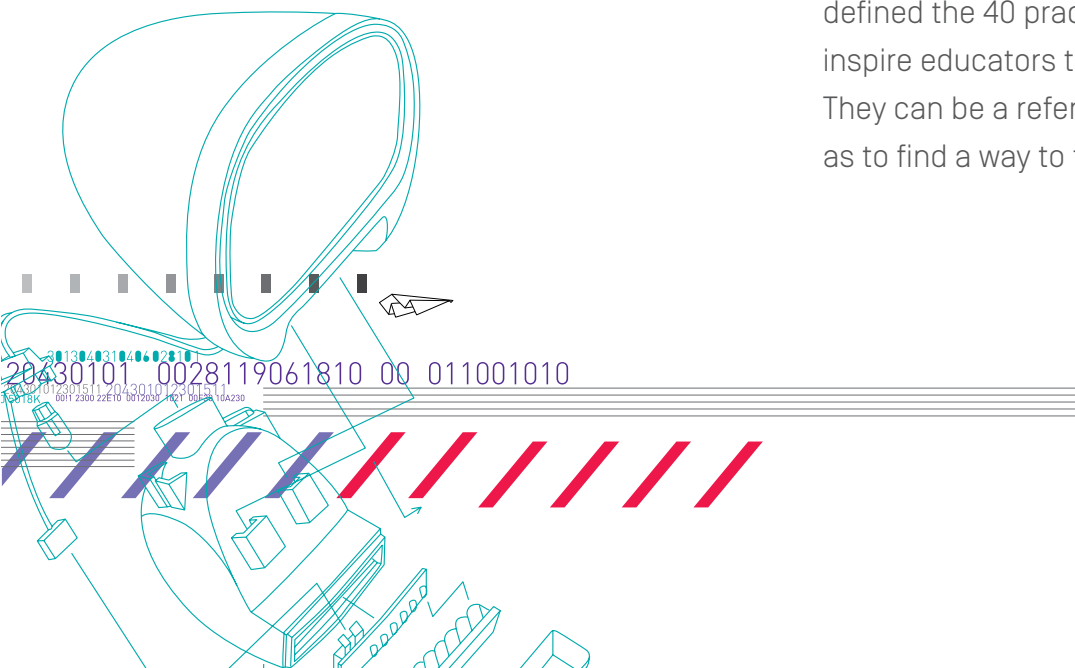
began to develop innovative processes within the MDEs. That's when we created the first technical course for Digital Media Screenwriting, and we didn't stop there. We have developed a series of trainings for teachers and managers to develop more communicative, planned and monitored pedagogical practices. We create and implement media monitoring, training first year students from each school to be agents of transformative actions, such as We from Teaching and Learning survey. In 2008, the program was identified as NAVE (Advanced Education Center) and was structured in the public school tripod, teaching research and dissemination. Our MDEs reinvented their work by mobilizing different audiences to engage in their school projects and events; building partnerships and seeking support for innovative and communicative teaching initiatives; elaborating social actions through communication; disseminating and managing qualified information. Now is the time for dissemination to bring some of our best systematized experiences to the public. It would be impossible to talk about all of the successful initiatives and practices we have developed over the years here, so we always make sure to record them. This is the only way we would be fulfilling our mission of "developing innovative solutions for Brazilian education". On behalf of planetapontocom I want to thank you here for the opportunity to have participated in that initial challenge that today is one of the most innovative programs in Brazilian High School. We believe that partnerships are privileged forms of communication. This is the future...





THE IMPORTANCE OF ORGANIZING KNOWLEDGE

An experimentation lab where educators and students find the environment and infrastructure that spurs innovation in the ways of teaching and learning. This is NAVE [Advanced Education Center], a High School program integrated with vocational training. Since 2006 in Recife and 2008 in Rio de Janeiro, their educators have designed and experimented with innovative teaching practices that can be of great value to other schools in the country, whether public or private. Therefore, this e-book is a contribution to the Brazilian educational public policy. That's why it is in digital format. This makes it easier for teachers and schools anywhere in the country. The organization of the volume took a whole year, from mapping the activities and their systematization to the curatorship that defined the 40 practices that are part of it. The activities that make up this publication can inspire educators to experiment with new classroom dynamics and build new projects. They can be a reference for a new high school whose project is still under development, so as to find a way to teach and learn that, above all, makes sense to students.



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CURRICULAR MATRIX | NAVE Rio de Janeiro

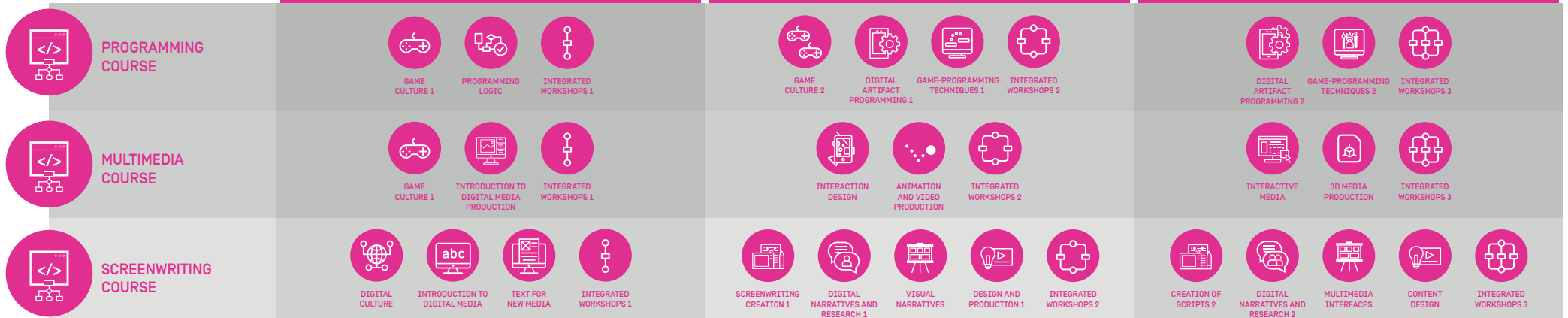
COMMON NATIONAL CORE COMPONENTS



FIRST YEAR

SECOND YEAR

THIRD YEAR



CURRICULAR MATRIX | NAVE Recife

COMMON NATIONAL CORE COMPONENTS

LANGUAGES AND THEIR TECHNOLOGIES

PORTUGUESE LANGUAGE

PHYSICAL EDUCATION

ART

NATURAL SCIENCES AND THEIR TECHNOLOGIES

BIOLOGY

PHYSICS

CHEMISTRY

MATHEMATICS AND ITS TECHNOLOGIES

MATHEMATICS

HUMANITIES, SOCIAL SCIENCES AND THEIR TECHNOLOGIES

SOCIOLOGY

GEOGRAPHY

PHILOSOPHY

ELECTIVES

ENGLISH

FIRST YEAR

PROGRAMMING COURSE

MULTIMEDIA COURSE

DIGITAL GAME CULTURE

DIGITAL WORLD CULTURE

PROGRAMMING LOGIC

INTEGRATING PROJECT 1

DIGITAL GAME CULTURE

DIGITAL WORLD CULTURE

DIGITAL GAME ART

INTEGRATOR PROJECT 1

SECOND YEAR

GAME-PROGRAMMING 1

DIGITAL ARTIFACT PROGRAMMING 1

ENTREPRENEURSHIP AND INNOVATION

ELECTIVE 1

INTEGRATOR PROJECT 2

STATIC IMAGING PRODUCTION 1

MOTION IMAGING PRODUCTION 1

ENTREPRENEURSHIP AND INNOVATION

ELECTIVE 1

INTEGRATOR PROJECT 2

THIRD YEAR

GAME-PROGRAMMING 2

DIGITAL ARTIFACT PROGRAMMING 2

PROFESSIONAL ETHICS AND APPLIED LEGISLATION

INTEGRATOR PROJECT 3

STATIC IMAGING PRODUCTION 2

MOTION IMAGING PRODUCTION 2

PROFESSIONAL ETHICS AND APPLIED LEGISLATION

ELECTIVE 1

INTEGRATOR PROJECT 3



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HOW TO USE

The first page of each teaching practice provides an overview of the activity, icons and keywords that help identify reading interests.

Identify activity related topics

Read an overview of the activity

CHAPTER 1 > NAVE NETWORK

39

NAVE NETWORK

KEYWORDS

#SOCIAL_NETWORK
#COLLECTIVE_INTELLIGENCE
#CYBERCULTURE

AUTHORS

TIAGO DARDEAU
WINSTON SACRAMENTO

WHAT IS IT?

Virtual platforms can be used to create a space for knowledge, culture and collaboration between teacher and students. With them, the educator can take attendance, organize study materials, socialize tasks, foster reflection and stimulate the exchange of information. This activity brings an experience of using Facebook in a High School class, but the strategy can and should be adapted to the reality and context of each educator.

MODALITY

PROFESSIONAL AND TECHNOLOGICAL EDUCATION

TECHNICAL COURSE

SCREENWRITING

Identify Subject Areas and Curriculum Components in which the activity was conducted

TARGET AUDIENCE

ELEMENTARY SCHOOL

HIGH SCHOOL

ADULT LEARNING

Identify audiences with which the activity can be performed

SKILLS

COMMUNICATION

DIGITAL CULTURE

EMPATHY AND COOPERATION

Identify BNCC skills that can be developed through the activity

CURRICULAR COMPONENTS

SUBJECT AREAS



MODALITY

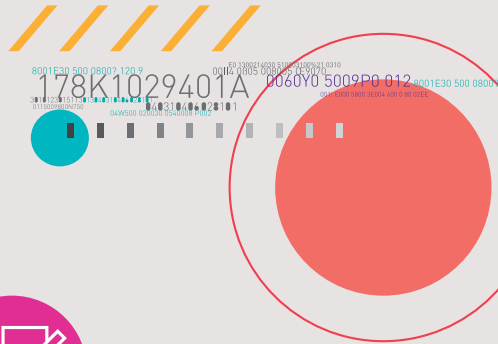


COURSES

TARGET AUDIENCE



With these icons, it is possible to locate the **subject areas**, **curriculum components** and **courses** of the **Professional and Technological Education modality**, and the **audiences** in which the practice was or could be applied.





KNOWLEDGE

Value and use knowledge about the physical, social, cultural and digital world to understand and explain reality.



SCIENTIFIC, CRITICAL AND CREATIVE THINKING

Investigate causes, elaborate and test hypotheses, formulate and solve problems with criticality and creativity.



CULTURAL REPERTORY

value, enjoy and participate in various practices and artistic and cultural manifestations.



COMMUNICATION

Expressing and sharing information, feelings and producing meanings that lead to mutual understanding using different languages.



DIGITAL CULTURE

Understand, use and create digital technologies in a critical, meaningful and ethical way to play a leading role and authorship.



ARGUMENTATION

Arguing on facts, data, and reliable information to formulate, negotiate, and defend common ideas, points of view, and decisions.



WORK AND LIFE PROJECT

To value the diversity of cultural knowledge and experiences and appropriate knowledge and experiences that enable them to understand their own relationships in the world of work and make choices aligned with the exercise of citizenship and their life project, with freedom, autonomy, conscience criticism and responsibility



SELF-KNOWLEDGE AND SELF-CARE

To know each other, to understand each other in human diversity and to appreciate and recognize one's own emotions and those of others.



EMPATHY AND COOPERATION

Exercising empathy and cooperation, respecting and promoting respect for others and human rights without prejudice.



RESPONSIBILITY AND CITIZENSHIP

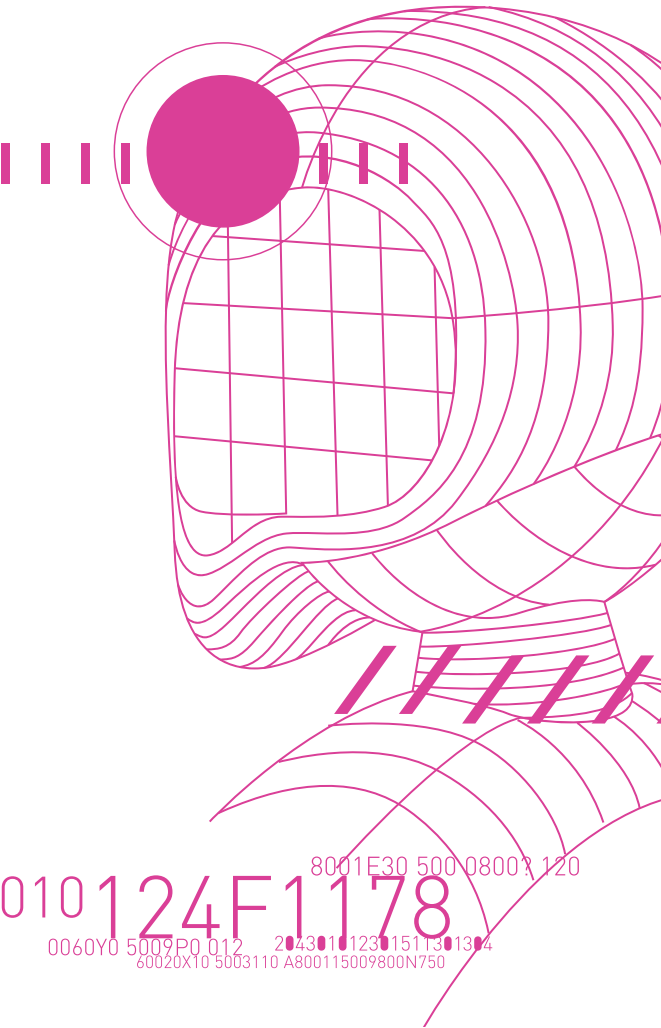
Act personally and collectively with autonomy, responsibility, resilience and based on principles of citizenship.

CHAPTER 1

A DIGITAL DIVE

A DIGITAL DIVE

How can apps, social networks, websites, and software generate meaningful classroom experiences? The practices shared by teachers in the following pages suggest good paths. One shows that with Facebook, you can take student attendance in class completely differently - and take this moment to open a virtual discussion with the class. Attendance, something that has been done almost mechanically by teachers for decades, takes on a new dimension. The proposal is a dive into the digital universe that, in addition to subverting common classroom practices, awakens a critical, reflective and ethical understanding of information and communication technologies in students.



NAVE NETWORK

KEYWORDS

#SOCIAL_NETWORK
#COLLECTIVE_INTELLIGENCE
#CYBERCULTURE

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WINSTON SACRAMENTO

WHAT IS IT?

Virtual platforms can be used to create a space for knowledge, culture and collaboration between teacher and students. With them, the educator can take attendance, organize study materials, socialize tasks, foster reflection and stimulate the exchange of information. This activity brings an experience of using Facebook in a High School class, but the strategy can and should be adapted to the reality and context of each educator.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



SCREENWRITING

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



DIGITAL
CULTURE



EMPATHY AND
COOPERATION

WHY DO IT?

It is essential to incorporate the elements of cyber culture, so present in the daily life of the kids, into daily school life. The experience described here is a way of bringing youth culture, immersed in the virtual experience, into the classroom. The initiative may even tighten the bonds between the teacher and the students. Networked pedagogical management brings the school closer to today's youth, expanding curriculum opportunities and incorporating new work and study dynamics.



RESOURCES

- Computers, tablets or smartphones with internet access



CLASS TIME

- This activity was developed throughout the school year.

HOW TO DO IT?

Attention: Before the activity, the teacher must choose the platform that will be used to interact with the students. In the proposed practice at José Leite Lopes State High School/NAVE Rio, we opted for a closed Facebook group, but it is possible to perform the activity on other platforms. The teacher should devise rules for the kids' participation.

Rules of use of the platform must be agreed upon with the class.

1 On the first day of class, the class discusses the use of virtual space, and the teacher can invite those who are not registered on the social network to create profiles if they want. It is recommended that you establish an initial

classroom proposal about what should or should not be posted to the group.

2 The next step is to create a closed Facebook group with the profiles of all students. Throughout the year, the educator can hold conversations to evaluate the dynamics of participation, build and agree upon new rules of use with the class, and receive suggestions for improving the process.

3 Once the group is created, all the dynamics of registration, study, production, communication and evaluation become concentrated on the virtual platform. These are some developed ways of use:

- Check student attendance and

introduce the theme of the class. Upon entering the classroom, the teacher posts to the Facebook group about the class theme, such as an image, a short text, a video, a GIF, or a comic. They then ask everyone to use their smartphones at that moment to “enjoy” the publication, checks the “likes” to gauge the students’ attendance and starts the class by asking questions about the content of the publication.

- Distribute tasks, assignments and readings about the subject. All activities are guided and recorded by the platform. The teacher organizes a post with instructions, and students clarify any questions they have in the comment area. In this case, even, it is



not always the teacher who answers the questions, because one of the students can also do this. The tasks and assignments, as well as the answers that the teacher gives, are also made there.

- Transform the network into a collaborative knowledge space. The teacher can publish content related to the subject or relevant to the kids. These contents include links that lead to texts, videos or reports. This is critical so that the environment does not just become a repository of course work and tasks. In addition, the teacher, during classes, also invites students to be leader of the virtual environment. Their participation, beyond the delivery of works, is what makes them owners of that space.

- Miscellaneous interactions outside of class hours. The teacher can use the virtual environment to perform diagnostics or set probes that are useful for planning their future classes. A survey of students in the group is a good way to gauge their interests and prior knowledge of certain topics. Another suggestion is fun or riddled ads that stimulate the class's curiosity about the topic of the next class. The virtual platform can also be used for voting and for communicating school notifications and news.



O CÉU DE RECIFE
É O MAIS ALTO DO MUNDO.
CIGERU DEAN

EVALUATION

The teacher promotes conversations with students to evaluate the use of the virtual platform, establish agreements and receive suggestions for improvement and optimization of the tool.

RESULTS

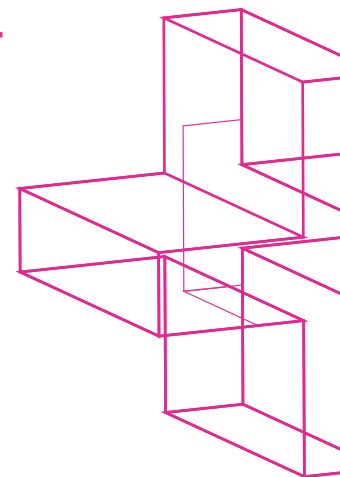
The incorporation of the virtual platform had positive effects. The kids were more engaged in the topics of the subject, self-management of the tasks and work proposed improved and they participated in the exercises in a more qualified way. All the records made by the teacher and the class on the virtual platform formed a memory of the course experienced in the subject, which is significant for the development of the evaluation processes. There was also an impact on the classroom space time relationship as the processes became more dynamic.

LEARN MORE



How to create a Facebook group
[<http://bit.ly/2NCKN6Q>]

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CLASSDOJO

KEYWORDS

#GAMIFICATION
#SCHOOL_ATTENDANCE
#CONFLICT_MANAGEMENT

AUTHOR
DANIEL MARTINS

WHAT IS IT?

ClassDojo is a classroom communication and gamification application that enables you to share photos, videos, and messages about your daily life. This is a practice that adopts the daily use of the tool and transforms teachers, students and parents or guardians into a work team, fostering innovative school evaluation and monitoring experiences.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



PROGRAMMING



MULTIMEDIA

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



DIGITAL
CULTURE



EMPATHY AND
COOPERATION



SCIENTIFIC AND
CREATIVE THINKING

WHY DO IT?

In schools, parents and guardians are generally only called upon to monitor the development of children and kids when they receive a negative rating, such as poor grades or bad behavior. Feedback given by teachers to families and students themselves is often punctual and situational. An application like ClassDojo facilitates the constant exchange of information between everyone involved in this process.



RESOURCES

- Computers, tablets or smartphones with internet access. Registration required on the website or app.



CLASS TIME

- This activity was developed throughout the school year.

HOW TO DO IT?

Attention: To use ClassDojo, the teacher, students and parents or guardians must subscribe to the website or application. Registration is very simple. All subscribers need to create their avatar to operate the app.

Teacher and students create rules for subject together.

1 The teacher uses one or two classes to collaboratively build the monitoring indicators with the students. The teacher asks students to rank behaviors, skills and attitudes that they consider ideal in class. The class creates rules for working in the subject, also indicating behaviors that should be avoided. Everything is recorded in a document as clearly and objectively as possible, always thinking about the needs,

demands and singularities of each group.

2 Once the working rules are defined, they are transformed into attitudes and the teacher configures the application with them. Buttons with the conducts considered positive (which in the application reward positively) and buttons with unwanted conducts (which score negatively) are created.

3 From then on, the application is used in the classroom. Some examples of how this can be done:

- At each meeting, the educator discloses the class proposal in the “Class diary”

section of the application. When they post the activity, students and parents or guardians can access and interact. While the class works, the teacher closely follows participants and interacts through



the app to encourage them, make alerts and recommendations. A practical example: The class can be organized in two sections, one with content exposure and another with practical exercises. During the first part, students are asked questions and, in the app, the teacher scores the quality of interaction at this time of exposure. The app distributes prizes in points and as the kids can track their evaluation in real time, this becomes a stimulus for engagement. In the second part, the teacher can circulate around the classroom recording what happens in photos that are available in the section of the app called “Class Activity Diary”. Each student has a record of their performance, which can be awarded and have feedback shared by the app.

- The app also has a student draw

system. This tool can help, for example, in choosing who will answer a particular question about the content of the class. It is advisable to inform participants in advance of when this draw will be made so they can prepare.




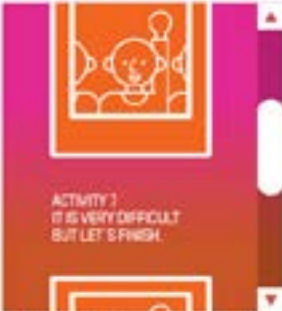



- ClassDojo can also be used for homework and group work from the “Daily” tool. Each student makes an individual record of their process for completing the task or work.
- Parents, family members or guardians registered in the app can access the “Class diary” section and react with likes, comment on published photos and interact with the teacher and students through the app’s chat.

4 At the end of each two months, a meeting is organized to evaluate the experience and reflections. The teacher designs the performance charts generated by the app itself for the class. When the semester balance is made, the records can be erased so that all students restart a new cycle on an equal basis without positive or negative scores.





HOW CLASSDOJO CAN BE USED

			
PARENTS OR GUARDIANS CAN ALSO VIEW THE CLASS ACTIVITY	JUST HAVE THEM REGISTERED IN THE APP AND ACCESS THE CLASSROOM AREA.	IN A CLASS WITH HANDS-ON EXERCISES, THE TEACHER CAN MOVE AROUND THE ROOM RECORDING EVERYTHING THAT HAPPENS IN PICTURES.	
			
IN THIS AREA OF THE APP, THERE ARE PUBLISHED PHOTOS AND DATA ABOUT THE ACTIVITIES DONE WITH STUDENTS.	PARENTS OR GUARDIANS CAN ENJOY, COMMENT ON OR EVEN INTERACT WITH THE CLASS AND TEACHER THROUGH CHAT.	THESE IMAGES ARE MADE AVAILABLE BY THE TEACHER IN THE APP IN THE CLASS ACTIVITY DIARY.	EACH STUDENT FINDS THE RECORD THERE.

EVALUATION

The activity structures a process of monitoring, procedural evaluation and self-evaluation of the student. The data generated by the app can be used by the teacher to provide feedback and guide students about their school life, but there is no grade for the assignment.

RESULTS

This practice has shown that class gamification can greatly improve learning. It made students feel motivated to improve their app score. The use of ClassDojo also improved communication between the teacher, the kids and their guardians. The app also contributed to classroom management by the teacher.

LEARN MORE



ClassDojo
(<http://bit.ly/36Av9Bt>)



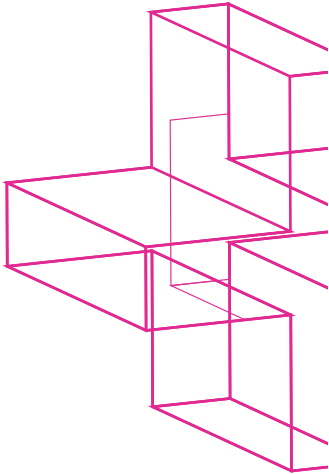
ClassDojo - resources
(<http://bit.ly/2qhwQn1>)



Intro to ClassDojo
(<http://bit.ly/30pBvkP>)



How to use ClassDojo
(<http://bit.ly/2WJE3ll>)



LET'S PLAY REVISION

KEYWORDS

#QUIZ
#APP
#FUN

AUTHOR
CARLOS BURGOS

WHAT IS IT?

This practice is based on the use of Kahoot !, a free online tool that, in addition to promoting a fun classroom activity, is also a good option for the teacher to make frequent revisions of content worked on the subject. Kahoot! only has an English version.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



MULTIMEDIA

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



DIGITAL
CULTURE



EMPATHY AND
COOPERATION

WHY DO IT?

Often, when doing exercises or quizzes with book questions in the classroom, students do not keep their resolutions. With virtual storage, this does not happen. This strategy also allows for interesting socialization: each student makes an individual effort to solve one or more questions and, upon submission, has access to other problem solving developed by their peers.



RESOURCES

- Computer or any other device with internet access;
- Projector;
- Smartphones or computers with internet access for each student or pair.



CLASS TIME

- This activity was developed in three classes, 50 minutes each.

HOW TO DO IT?

Attention: The Kahoot! site can be used after a week, a month, a quarter or a semester of classes: the frequency will depend on the review routine that the teacher finds necessary.

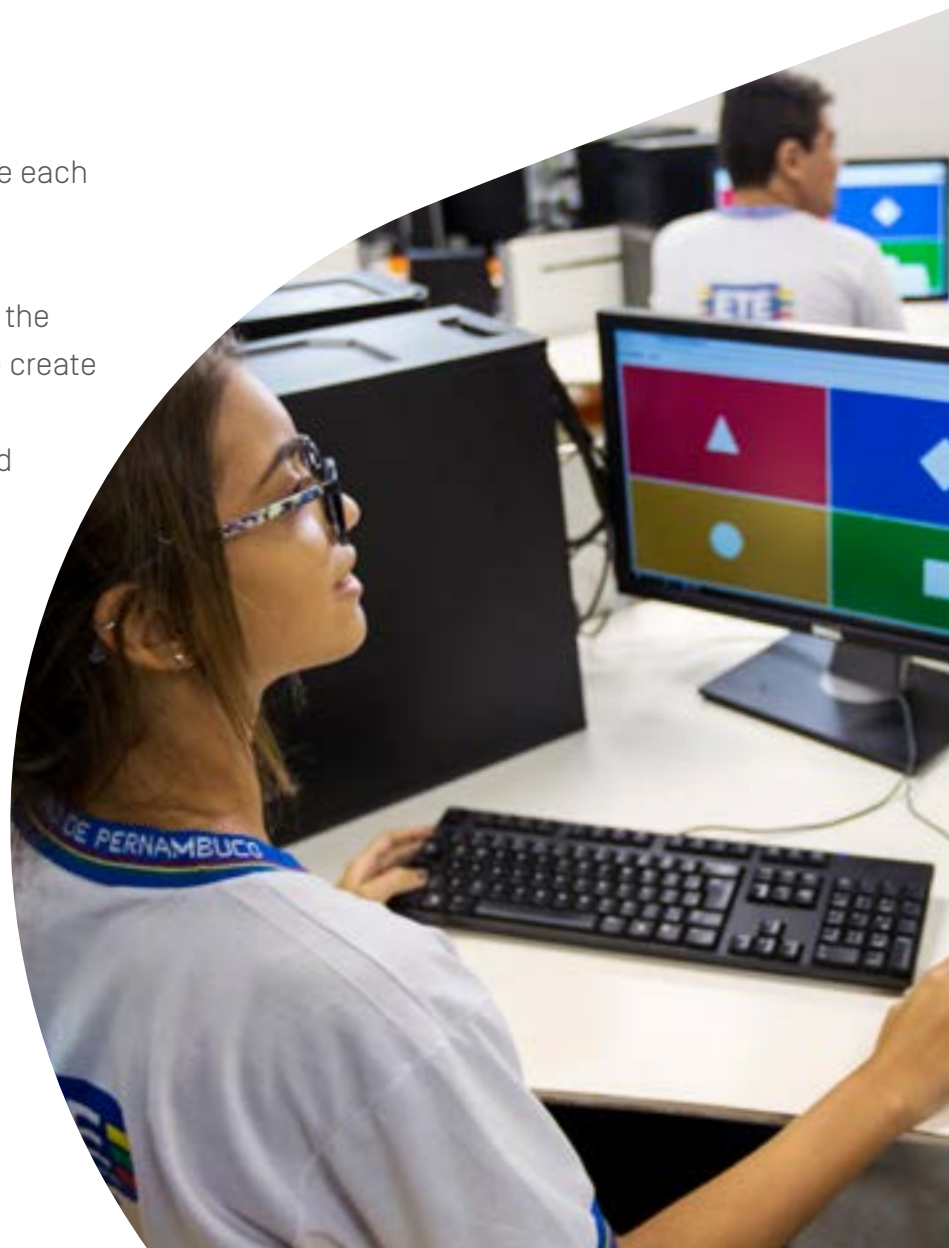
The teacher should not create too many questions, as to not becoming tiring.

1 To create a quiz as a strategy for reviewing the content, the teacher must click on “New K!” in the upper left corner of the page, and then “Quiz.” Next, you must fill in the requested data, such as the name of the new quiz and the keywords. By clicking on “Add question”, the teacher should enter a question followed by four alternatives and tick the correct answer. There is a character limit and you need to make sure that the “Award

point” option is on, as this will score each student’s correct answers.

2 The educator should review the issues and be careful not to create too many questions, as the process can end up being tiring and tedious. Once the quiz is ready, they should prepare their class to answer it.

3 In the classroom, on their computer, the teacher accesses their account on the site and projects the page on the wall or a whiteboard, so that everyone can follow the questions of the quiz that will be asked. The educator should also share the





Kahoot! page link where is the review and test number so students can apply and be able to answer the quiz in real time using their own smartphones or computers.

4 Starting the quiz, students answer questions that appear on the screen projected by the teacher on their smartphones or computers. On the page they go to, they will have access to four colored buttons, which are the answer options for each question. The one who answers correctly and the fastest gets points. A ranking with all participants is assembled each time a question is answered.

5 It is normal for students to get very excited during the review, as the quiz turns into a playful activity that entertains them while reviewing the content. At the end of the practice,

it is possible to generate an Excel file with all game data, such as percentage of correct answers and speed of each response. Analyzing this data is essential for subsequent reviews, which may bring new issues as well as the most difficult questions in the previous review.

6 The winner usually wins a symbolic prize from the teacher. The site itself releases the results and announces who emerged victorious.



EVALUATION

You can evaluate student performance by Excel files generated in Kahoot! after each session. There are teachers who use this data to record a grade, but in the case of the activity performed at Cícero Dias Technical High School/NAVE Recife, the site was used only as a review, so that the teacher knew that issues were not yet well resolved by the class and which subjects would arouse the most interest.

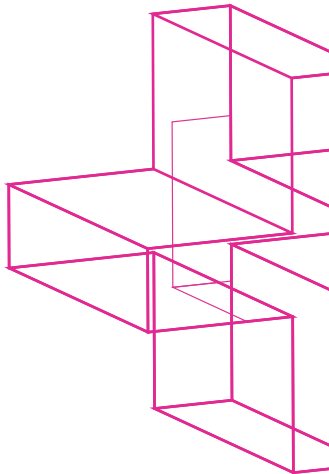
RESULTS

Students have shown a great deal of affinity with the process, and many subjects considered difficult by previous classes that have not experienced this type of review are now considered easy or “not so complicated”. The review process has become less stressful and faster for both the educator and the class.

LEARN MORE



Kahoot! (only available in English)
[<http://bit.ly/2WEIdkY>]



NETWORK PHYSICS

KEYWORDS

#EXERCISES
#REVIEW
#VIRTUAL_STORAGE

AUTHOR
JOÃO BOSCO

WHAT IS IT?

In this activity, students solve physics questions and store all files on an internet platform, creating an online resolution bank. They also give a presentation of the problem to the class, debating the paths they have taken to reach the solution. Resolutions are thus available to all colleagues and can be used for both school evaluations and external tests such as the National High School Exam [Enem].

SUBJECT AREA



NATURAL SCIENCES
AND THEIR
TECHONOLOGIES

CURRICULUM
COMPONENT



PHYSICS

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



DIGITAL
CULTURE



EMPATHY AND
COOPERATION



SCIENTIFIC AND
CREATIVE THINKING

WHY DO IT?

Often, when doing exercises or quizzes with book questions in the classroom, students do not keep their resolutions. With virtual storage, this does not happen. This strategy also allows for interesting socialization: each student makes an individual effort to solve one or more questions and, upon submission, has access to other problem solving developed by their peers.



RESOURCES

- Computer or any other device with internet access;
- Projector.



CLASS TIME

- This activity was developed in three classes, 50 minutes each.

HOW TO DO IT?

Attention: **teacher and class indicate successes and errors, together.**

1 The teacher invites a student to be the manager of the class storage folder. They may ask interested parties to introduce themselves and choose a volunteer. The only prerequisite is that this student already has prior knowledge of how Google Drive or any other cloud data storage system works.

2 The student you choose should collect colleagues' e-mails, create the folder and share it with everyone. The next step is to define which questions will be answered by which students, which can be done by a draw. They are given a deadline to answer them and a date to present the solution to the class.

3 Problem solving is done by the students, who must create a four-minute presentation to show the path they



have taken to reach the answer. It's a good idea for them to make the presentation on a computer program so that it is designed for the whole group. It is worth suggesting that they include pictures, drawings, animations or videos that help in understanding the issue.

4 At the end of the presentation, the teacher should make comments, as well as the rest of the class, indicating errors and successes and suggesting other strategies for how the issue could be resolved.



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CÍCERO DIAS



O MUNDO DE RESISTE
E A VIDA ALTA DO MUNDO
CICLO DE DIAS

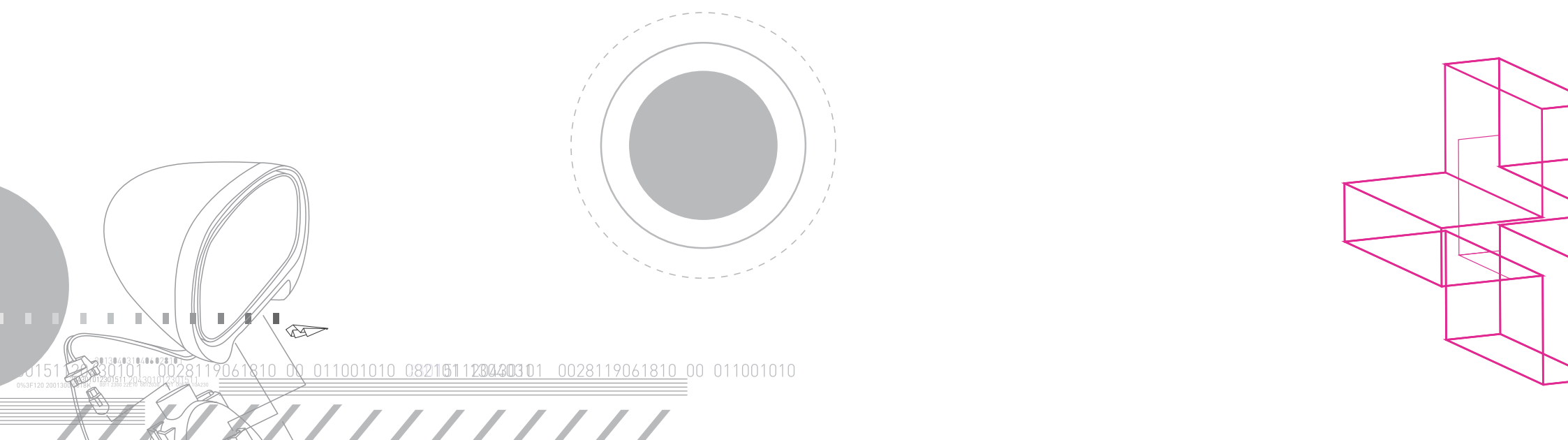
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02301 02810 1040310406 02301 02810 130403 001 001
406 02301 001 001

EVALUATION

The evaluation of this activity focuses primarily on the student’s presentation to the whole class. Your effort to solve the problem and to try to show the group references that help in this process is worth more than the right answer. This evaluation is reversed by a score that will be added to the students’ final grade.

RESULTS

The first perceived result of this activity was the better organization of students for the tests at the end of the quarter. The organized resolution bank has become a tool that is accessible to all and has been extremely important for reviewing the material. Another aspect is that giving a presentation to the class individually, even for a short time, improves students’ public speaking, which was noticed throughout the year, the more such exhibitions were made.



FROM THE CLASSROOM TO THE APP

KEYWORD

#SMARTPHONE
#TECHNOLOGY
#DIGITAL

AUTHOR
ANDERSON SILVA

WHAT IS IT?

In this activity, students create a smartphone app from the content of a regular education subject. The choice of the subject matter will be made by themselves, who also decide what functions or tools the app will offer users.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



PROGRAMMING

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



DIGITAL
CULTURE



SCIENTIFIC AND
CREATIVE THINKING



WORK AND LIFE
PROJECT

WHY DO IT?

When subjects are worked on in an integrated manner, students can more easily and effectively relate their knowledge. An activity that proposes that the kids create an application about what they learn in the classroom makes them seek to understand content differently than they would for an exam, for example. This practice also encourages a project designed, organized and executed in teams.



RESOURCES

- Computer lab equipped with an operating system, Android Studio software or internet access for use of MIT AppInventor2;
- Free image editing and production software such as GIMP and InkScape.



CLASS TIME

- This activity was developed in ten classes, 50 minutes each.

HOW TO DO IT?

Attention: The educator and students come together to think about designing an application. The idea should start from the kids, taking curriculum content in which they have difficulty into consideration. At the Cícero Dias Technical High School/NAVE Recife, the chosen content was hydrostatic. From there, the kids thought of strategies to present the theme within the application.

The app is evaluated not only by the teacher but by other kids as well.

1 Students, in groups of three to eight participants, should draw up a plan, with all the stages of project development and division of responsibilities. In general, already at this stage, they also consult the subject teacher whose subject

will be addressed. The fundamental role of the teacher of the technical subject that proposes the activity is to guide within their subject area. In the above example, the physics teacher was consulted to ask questions about hydrostatics, and the technical teacher guided the project.

2 Students start research on the subject using books, the internet and other teachers that will be covered in the app to be developed. For the hydrostatics app, they researched the formulas they had the most difficulty with. This part of the activity is critical for the content to be presented in the app in context, that is, in a way that makes sense to other students.

3 Time when ideas are raised about how the app will handle content. The kids should think about the best way to approach the themes along with the teacher. One of the functions presented by the hydrostatic application, for example, was a “buoyancy calculator”: from data such as density, volume and gravity [see more on the image on the next page], this tool generated a result and still led the user to a screen of explanations of the formula.





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Cidade do Sen

4 Once you have defined the functions of the app, you must prototype it, test it, get evaluations from other users' experience, and make the necessary corrections. For this, students can use the following tools: Android Studio software or MIT AppInventor2. The idea is to create a “beta version” of the app to test and validate its learning effectiveness.

5 At the end, students present and make the apps available for evaluation from the teachers involved and the class.



EVALUATION

The activity evaluates students during the app production process. For this, the teacher must carefully observe the development of the projects. Five aspects should be highlighted: creativity, relationship skills, level of commitment, communication skills and ability to research and relate knowledge.

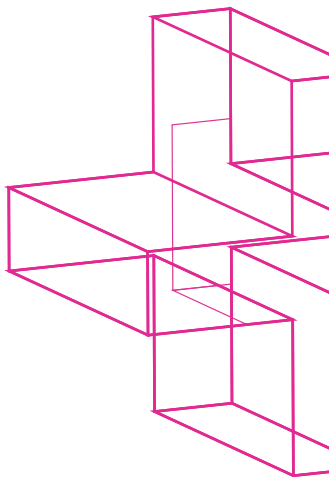
RESULTS

Learning to plan, work and decide in groups, organize time, systematize ideas and design a big project: these were some of the points indicated by the students themselves as results at the end of the activity. There are also reports of kids who, due to the need for detailed knowledge for the development of the app, were finally able to understand the content in question, something they had not achieved in the classroom.



LEARN MORE

- Silva et al., 2014. A. P. Silva, T. L. A. Machado, G.
- A. Maciel, “**Micro-Atividades Tecnológicas para o Ensino Médio Integrado**”. Proceeding of III CBIE. p. 278-287, 2014, Dourados - MS



ROBOTICS IN THE CLASSROOM

KEYWORD

#PROBLEM_SOLVING
#ARDUINO
#COMPUTATIONAL_THINKING

AUTHOR
JOSÉ AUGUSTO

WHAT IS IT?

This practice proposes interactive exercises that simulate the programming of a traffic light. Through the experiment, students learn the basic principles of robotics and develop computational thinking.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



PROGRAMMING

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



DIGITAL
CULTURE



SCIENTIFIC AND
CREATIVE THINKING

WHY DO IT?

The activity puts students in touch with the basics of logic, electronics, physics and chemistry. It works experimentation, launching challenges and structuring problem-based learning (PBL). It can be developed by programming teachers, but also by teachers from other subject who are interested in developing the so-called computational thinking in their students. Working elements of the programming language in the classroom, as well as being an important qualification for the job market, will also be increasingly central to all walks of life.



RESOURCES

- Computers with internet access (one computer for every two students), multimedia projector, Tinkercad app, DuinoBlocksII App (DBKII);
- As an optional feature, the teacher can still use the beginner level Arduino kit (it is not critical to this practice, but it can enrich the process).

See the materials that make up the kit below:

- 01 Arduino UNO board;
- 01 x Protoboard 840;
- 01 x USB AB Cable or USB Cable -Micro B (if you have selected the option with Arduino Leonardo);
- 01 x LM35 Temperature Sensor [makes it possible to measure the

actual temperature in degrees Celsius];

- 01 x Brightness Sensor (LDR 5 mm);
- 01 x 10k potentiometer;
- 01 x LED Graphic Bar;
- 01 x 7 Segment Display;
- 001 x Integrated Circuit 4511;
- 01 x RGB LED;
- 04 x Momentary Switch (PushButton);
- 05 x Yellow LEDs;
- 05 x Green LEDs;
- 05 x Red LEDs; 01 x High brightness LED;
- 15 x Resistors 300; 05 x 10k resistors;
- 01 x Buzzer;
- 01 x 16x2 LCD display with backlight (with connector already soldered);
- 330 x Premium Jumper wires M/M;
- 01 x Large Organizing Box.



CLASS TIME

- This activity was developed in six classes, 50 minutes each.

HOW TO DO IT?

Attention: At the beginning of the activity, there is a class for the presentation of the Arduino microcontroller and its main components, which can be found in this video, at the link <http://bit.ly/2PMSZ7s>¹. All exercises are done on the computer using Tinkercad, a web tool that simulates the development of electronic circuits and, in this practice, is used to simulate the behavior of LEDs.

The activity develops computational thinking.

1 The teacher gives a lecture to demonstrate how Arduino works. It can light up LEDs so that students

understand the possibilities of the equipment. This can motivate them to the next steps.

2 Next, the teacher should introduce Tinkercad, which will allow students to return to their programming and see, in real time and on the computer screen, how the robot’s sensors respond to commands.

3 In the third phase of the lecture, the teacher shows students the DuinoBlocksII visual programming language, which is very useful for programming challenge solutions. The main programming languages that

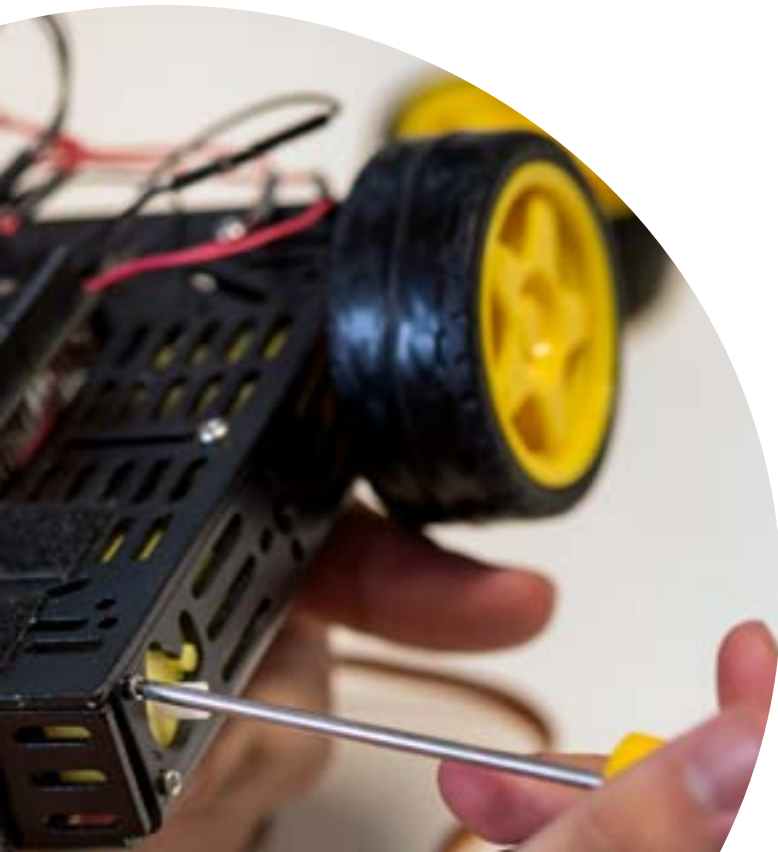
exist are textual and, for those who are starting to learn, the ideal is to use Visual Programming Languages - LPVs. They suppress the textual layer and some work in a drag’n drop system by clicking and dragging code blocks. With an LPV, instead of writing a complex algorithm to make a robot spin, the programmer just drags a logic block that performs this function.

4 In the next two meetings, students should do a hands-on exercise that will lead them to program the LED lights, mimicking a traffic light. These LEDs should come on and off in the correct sequence and at the appropriate time for the pedestrian crossing. First, a



1.Arduino microcontroller
[<http://bit.ly/2PMSZ7s>]

demonstration of the activity is done, and the teacher should share the computer screen with the class using a multimedia projector. Thus, the kids can follow the step-by-steps of the commands that the educator types. Here's the walkthrough of this demo:



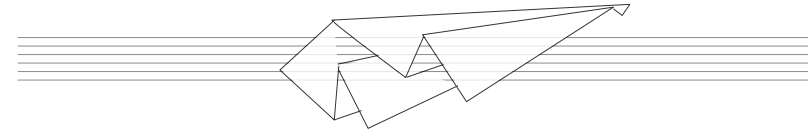
- To begin with, the Arduino Uno board is added to the Tinkercard and then three red, orange and green horizontal sequence LEDs representing the colors of the traffic light are placed on the protoboard. The red LED is then connected to the Arduino digital port 13 using a jumper (wire).
- The next step is to build the code block to light this LED in DuinoBlockII [DBKII]. After generating the code in DBKII, simply copy it and drop it into the Tinkercad coding area to test the circuit. The result will show that the LED will receive power through port 13 and light up to “burn out”. This process will show students that it is necessary to use a resistor to control this energy and ground the LED to avoid “burning” it again.
- In this way, a resistor is added between the jumper and the LED. At the other end of the LED, another wire is added to be routed to the GND [ground] port of the Arduino board, grounding the component. Testing the circuit, students realized that the LED does not “burn out”.
- With the red LED working, just do the same circuit connection process for the other 2 (yellow and green), connecting them to ports 12 and 11, respectively.
- To complete the process, simply set the LEDs on the DBKII to turn on and off separately and with a different timeout [turn on red, wait five seconds, turn off red and turn on green, wait ten seconds, turn off green and turn on yellow, wait three seconds, turn off yellow, and turn on red].

5 After, the teacher asks students to try to follow the same route, presenting only the image of the traffic light.

6 When trying to do the programming exercises, the kids become familiar with the technological tools and, by trial and error, learn to use them. For the exercises, the classes are organized into teams. Usually, each pair occupies a computer, but if the educator has less equipment available, they can form teams of up to three members. While the students work, the teacher follows the teams, asking possible questions. If any team can do the job quickly, the challenge is magnified: they need to add two more LEDs to the circuit, representing the complete pedestrian signal.

7 This practice is part of a longer didactic sequence. The teacher can perform other steps with the students.

8 Finally, the educator can do an evaluation with the class, asking students to identify the skills they have developed, highlighting the thinking models in programming and associating these learnings with knowledge of other subjects.



EVALUATION

The practice poses a number of challenges that, if in the teacher’s interest, can be treated as graded tasks.

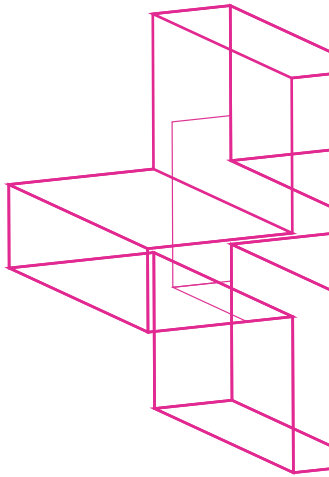
RESULTS

The students’ approach to robotics allowed them to engage strongly in the programming subject. The practical exercises on the computer with the applications made them concretely see various technical concepts. The

computational language is very abstract and a highly virtual experience. With robotics, the kids assimilate these concepts from the contact with the prototype plate components. This experience with computing also led students to other processes of research and experimentation at school. Students created a robotics and education research group, NAVE Labs, and began to articulate robotics knowledge with other subjects. In Geography, for example, they associated the energy theme with a robotic artifact, which lit some LEDs when the user blew a pinwheel, simulating the operation of wind energy.

LEARN MORE

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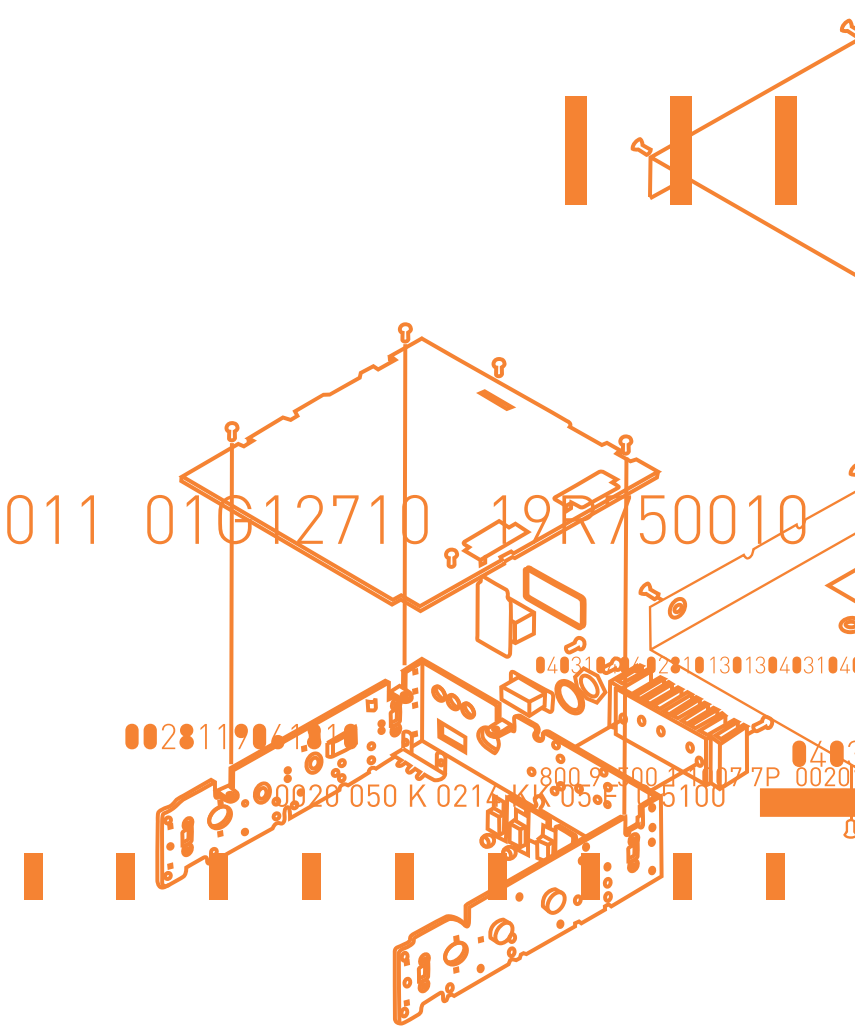


CHAPTER 2

RETURNING TO ANALOG

RETURNING TO ANALOG

Concepts and methods used in programming can be useful even when we are not in front of a computer, smartphone or tablet. The practices that make up this chapter indicate how and why this happens. In one of them, for example, the teacher presents a strategy used in software development that can help students in various activities, such as writing an essay, solving a mathematical problem or producing a world map. Diving into the digital universe in the previous chapter, with suggestions for apps, online tools, and social networks for use in the classroom, it's time to unplug and return to analog. Without losing sight of the knowledge brought by the new technologies.



BABY STEPS

KEYWORD

#TROUBLESHOOTING
#STEPS
#SEQUENCE

AUTHOR
MATHEUS LESSA

WHAT IS IT?

In this methodology, the educator structures a process for students to develop better activities of medium or high complexity. The kids are invited to follow a course organized by themselves or the teacher in simpler and more orderly logical steps, the so-called “baby steps”. By performing each small step, they move to the next step more easily, more motivated, and have a better understanding of the prerequisites and interdependence between exercise steps.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



PROGRAMMING

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



SCIENTIFIC AND
CREATIVE THINKING



WORK AND LIFE
PROJECT

WHY DO IT?

When faced with a more complex activity, it is common for anyone to freeze, not knowing how to act to reach the end result. In the universe of software programming, the logical path is to work in stages, thinking of the initial codes that will provide the basis for the following codes and so on. Inspired by this practice, called the agile software development technique, the activity described here can be used by educators from all subject areas to propose exercises with a logical and sequential organization, thus facilitating their accomplishment and teaching the student a new way of thinking.



RESOURCEST

- Material to record the activity or evaluation (just a paper with the tasks listed and organized in sequence).



CLASS TIME

- The duration of this activity depends on the exercise proposed by the teacher.

HOW TO DO IT?

Attention: The teacher should reflect on the work they will propose to the students from the following questions: what is the minimum the kid can do and what will contribute to the completion of the proposed exercise? What previous knowledge does they have? What will be needed?

This same strategy can be applied to a writing or mathematic problem.

1 With the observations made by the teacher from what they want to work on the activity, they should organize a kind of task list, putting the demands of each step of the exercise in order, aiming at its conclusion. This list can be made by the educator and delivered to the students or built with the students in the classroom.

The list below provides a step-by-step example of a programming task. The activity is to program a traffic signal. So these are the “baby steps”:

1. Program a green light to turn on
2. Make the green light blink
3. Program a red light to turn on
4. Set the green and red lights to alternate: one goes on for a while and the other goes off, and vice versa
5. Program a yellow light to turn on by switching between green and red
6. Set the lights to turn on in a specific order: first green, then yellow and then red





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7. Decrease the transition time of the yellow light so that it stays on for a shorter time than the other colors
8. Teachers in other subjects can also use this principle of task organization, always putting “baby steps” on a list
9. A math educator, for example, may present a problem to students that will require solving several equations. In this case, they should suggest this resolution in small steps, guiding first to isolate variables, then solve the formulas in parentheses, etc.
10. A Portuguese Language teacher may ask students for a dissertation, indicating that they should choose and write the topic first, then write a sentence

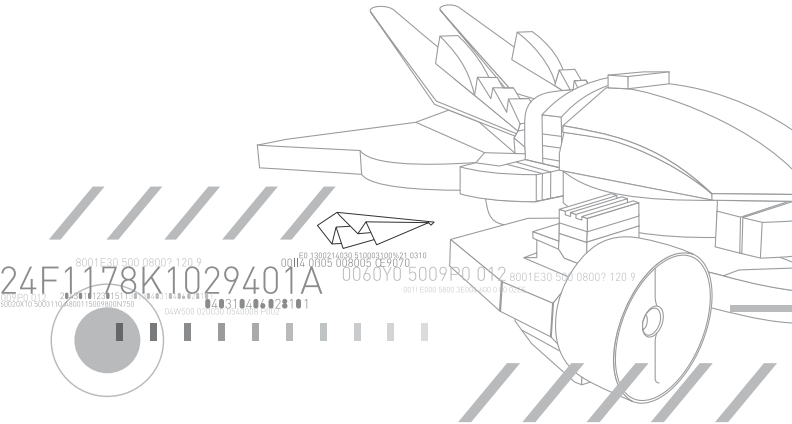
that summarizes the approach they want to use, create a list of all the arguments, and ultimately transform those arguments into paragraphs

11. A Geography teacher may ask students to produce a world map with different color gradations for the countries, marking their annual carbon emissions. To do this, students have to search this data on trusted sites, group it into a table, place it in ascending order, transfer this data to a blank map, caption the map with the colors used, etc.

2 Students are encouraged to complete all steps. But even when they cannot reach the end result, they can present part of the process to the teacher. In such cases, they may have a clear idea of what prevented them from

continuing, how much was left to complete the activity, and may even think of more efficient strategies to get the job done.

3 It is worth noting that the teacher may not require all students to follow the steps as a required path. Some kids may follow this path and some may not. If they choose this possibility, the teacher, at the end, invites students to reflect on the process of carrying out the activities, making the class compare reports of those who followed one strategy or another.



EVALUATION

The teacher can evaluate the students according to each step achieved and also consider, if not all steps have been taken, the organization of the students' activities, their involvement from the strategy and the reflections they developed throughout the process.

RESULTS

With the adoption of this methodology, students who previously could not complete an activity developed the ability to complete it and still learned new knowledge and skills. This organization has proven to be a good tool for anxious people, who always want to achieve fast results. Kids with this profile often identify a significant result at each step completed and thus collect multiple achievements in one task. Comparing the reports of students who followed this methodology proposed by the teacher with those who did not, the relevance and usefulness of the strategy was noted.

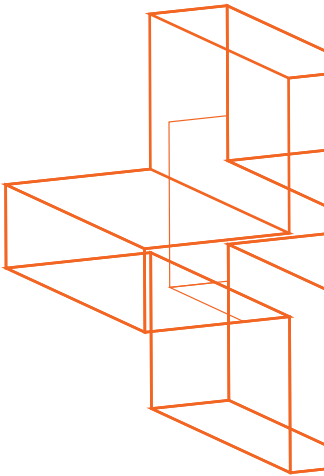


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LEARN MORE

- Cohen, D., Lindvall, M., & Costa, P. [2004]. **An introduction to agile methods**. In Advances in Computers [pp. 1-66]. New



LOGIC UNPLUGGED

KEYWORD

#ANALOG_RESOURCES
#ABSTRACT_CONCEPTS
#PLANNING

AUTHOR
DANIELLE NATHALIA

WHAT IS IT?

This practice aims to teach the fundamental concepts of programming - such as data, algorithms, flowcharts, readings and programming languages - using analog resources, i.e. without computers or software. The dynamics are built along with the students, according to their experiences and interests.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



PROGRAMMING

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



SCIENTIFIC AND
CREATIVE THINKING



EMPATHY AND
COOPERATION

WHY DO IT?

The kids' first contact with abstract subjects, such as programming logic, can make them feel unmotivated and frightened by their high level of abstraction. Thus, this activity can help them take another look at classes, as well as develop teamwork, participation in class building, and motivation to learn how to program.



RESOURCES

- It is important that the activity be performed in a spacious location. The dynamics vary with the proposals brought by the students, so it is not possible to predict what will be needed. These are usually stationery materials such as a pen, A4 paper, white and/or colored tape, chairs used in the classroom, balloons, cardstock, a matchbox or shoe box, and a disposable cup.



CLASS TIME

- This activity was developed in 11 classes, 50 minutes each.

HOW TO DO IT?

Attention: **how do you explain what an algorithm is in an enjoyable way?**

1 The teacher starts the practice with a discussion wheel to build a lesson plan with the students. The course is broadly exposed, along with a vision of what is expected during the year. For this stage, it is interesting that certain topics are addressed, such as kids' views on education, school and learning, so that they talk about the role of the school, what they think about that environment, whether they are comfortable in it or not. Some examples of topics to cover:

- Is there a difference between education and school? What is the role of school for you?
- How to deal with a room with different learning rates?

- What is learning?
- Do we learn to learn?
- Do you prefer someone telling you what to do or do you prefer freedom to do what you want?

2 In the second class, the teacher should form groups of five to six members. Each team will draw cards with subjects that will be seen during a course unit. In them are the definitions that explain what algorithms and flowcharts, variables, data types are, among others. Once the cards are distributed, students are taken to the courtyard or other environments to discuss the term and definition drawn. Important:





They cannot use the computer to research. The idea is that from this conversation, they create a game or activity that explains what the concept means, to be done with the rest of the class. In the case of an algorithm, for example, it is necessary to explain to the other students in a fun and creative way that it is a set of instructions that must be followed strictly to achieve a desired result.

3 In the next phase, the practices are performed by the teams during three classes. It is worth noting that these activities should be related to their daily lives, without making use of digital resources or technical concepts. Some teams may not be able to manage their time or class organization well, but it is important not to interfere with any of these times so that they have the experience of responsibility as a whole. Groups can draw

other concepts, even if they have already been worked on by other teams, to think about new activities.

4 The teacher should take a moment to reflect with the class on the dynamics that have been created. For this, students can create a logbook that will be completed according to the topics addressed by the groups. In this part of the activity, you can see what they understand, where they need help, and who their colleagues are most willing to help.

5 In the next class, students receive feedback regarding the dynamics performed and some points can be highlighted, such as time management in the execution of dynamics, organization, room mastery planning and collaborative behavior. They also receive comments on logbooks, where they reflect on their understanding of the subjects.

6 After all the previous steps, it is time to associate what was surveyed in the dynamics with the abstract contents of the subjects. For this, during two classes, the teacher can make use of more elaborate games and tools, which are generally used to teach programming. Game Suggestions:

- Minecraft
- Lightbot
- Blockly Games

Ludic tool suggestions:

- Scratch
- App Inventor

7 In the last phase of the practice, in two classes, the teacher applies evaluations and individual theoretical exercises on the subjects seen in the dynamics. It is also possible to adopt the practice of projects to evaluate the studied contents, such as planning the development of a simple game using Scratch.



EVALUATION

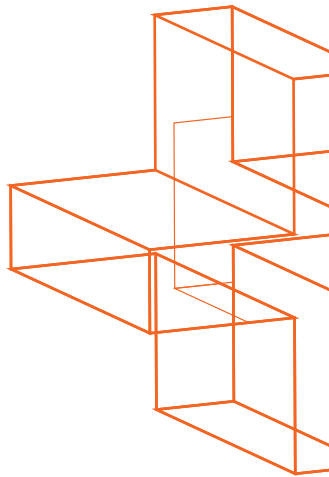
Part of the evaluation is based on observing the construction of dynamics, taking into account team organization, creativity, engagement, and aspects of self-learning and autonomy. Consideration was also given to the dynamics presentation and logbook analysis. Another part is made by notes of the exercises performed in the classroom and theoretical questionnaire applied individually. The works used to evaluate the cognitive aspect are proposed in class and performed in specific tools such as Visual Studio, using the C# programming language. The theoretical questionnaire was done with an online tool called Survey Monkey.

RESULTS

Student engagement, creativity and autonomy are noticeable. Giving them first contact with abstract subjects in an analogous and ludic way guarantees them prior knowledge, without giving way to major blockages. In connected dynamics, students are often afraid of writing the wrong code or executing an incorrect algorithm, and this activity ensures an error-friendly environment. Some competencies, such as student motivation, fluidity in deepening the subjects, enthusiasm in the construction of dynamics and autonomous study, indicated that the objectives were achieved. This result is reflected in the following units: how they appropriate new content and how confident they are with the use of more elaborate code and software.

LEARN MORE

- CS Unplugged, a collection of free computer science activities with games and puzzles.

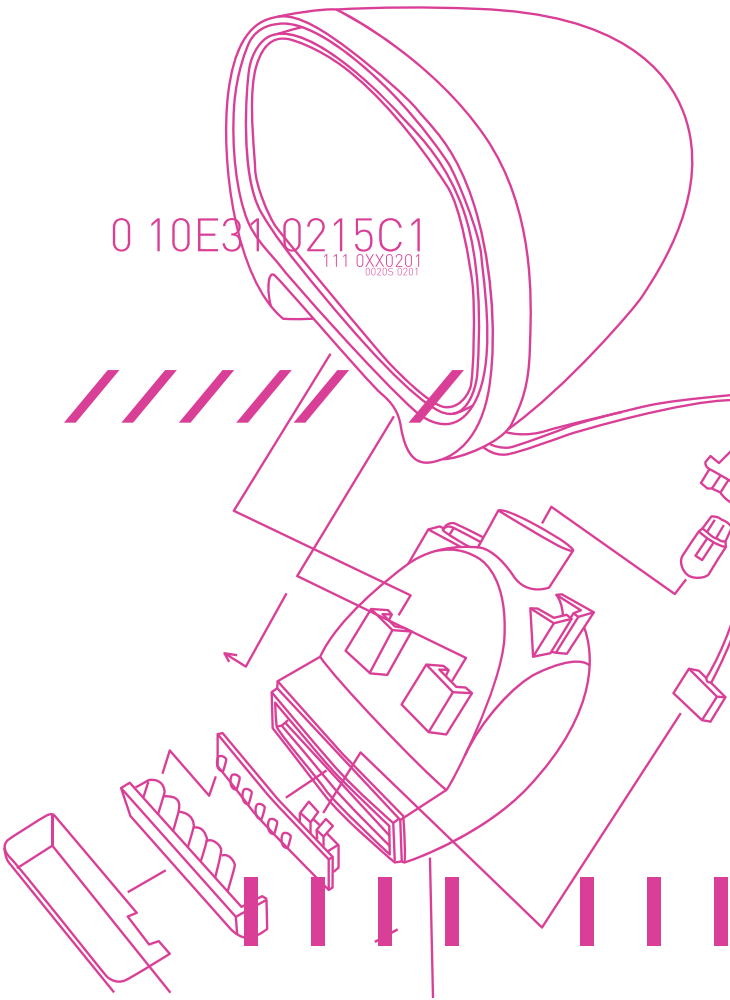


CHAPTER 3

THROUGH WORDS

THROUGH WORDS

Music, literary fiction and poems have the power to make us look at ourselves and each other, relive a past we did not live, reflect on the present, imagine a better future. In this chapter, the proposed activities use these three artistic expressions to work on content and address self-awareness, empathy, dialogue, cooperation and respect. One appeals to the roots of black music and creates a dance at school. The historical issues are there, as is the urgent and fundamental debate about racism. In the midst of the lyrics suggested by the teachers to be used in the activities, it is possible to take a trip that begins in the twelfth century, with the dark ages, and goes through cordel, Popular Brazilian Music, black music, all the way to popular books that influence today's kids.



DRUMMOND IN PIECES

KEYWORDS

#CARLOS_DRUMMOND
#POETRY
#SARAU (ARTISTIC EVENT)

AUTHOR
RENATA BARCELLOS

WHAT IS IT?

In this activity, students get in touch with poems and thoughts of the poet Carlos Drummond de Andrade and participate in a kind of sarau. This aesthetic and sensorial experimentation will support studies on the author's work. The stages of Drummond's production are presented to the class as well as their characteristics.

SUBJECT AREA



LANGUAGES AND
THEIR TECHNOLOGIES

CURRICULUM
COMPONENT



PORTUGUESE
LANGUAGE

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



SELF-AWARENESS



EMPATHY AND
COOPERATION'



CULTURAL
REPERTORY

WHY DO IT?

Encouraging the practice of reading is essential at any school stage and there are different and innovative ways to do this. In this activity, the kids are invited to connect their personal experiences with excerpts from Drummond's poems, making the subjectivity of each one go through the texts read and vice versa. They get in touch with the work of one of the greatest poets in Brazilian literature, which arouses their curiosity about Drummond, as well as preparing for important evaluations such as Exame Nacional do Ensino Médio- ENEM [National High School Exam].



RESOURCES

- Excerpts from Carlos Drummond de Andrade's texts printed and cut into small pieces



CLASS TIME

- This activity was developed in six classes, 50 minutes each.

HOW TO DO IT?

Attention: The teacher selects excerpts of poetry or chronicles representative of the four phases of Carlos Drummond de Andrade's work. At least one passage is required for each student. This practice has also been done with the class divided into threes, asking students to read entire poems. If done this way, more time should be reserved for the readings.

Each small drummond text must be declared with emotion.

1 The activity is performed in the school library, with the class organized in a large circle and the clippings with the texts scattered in the center, with the written side facing down. Each student must remove a paper cutout and a round of readings is done. They are

invited to declare the drawn portion with excitement and make an open comment. The idea is to create a *sarau* mood during two classes. Students are encouraged to talk about the work and about themselves, what they feel about reading, about how the author's words make an affect.

2 After everyone listens to “colcha de retalhos” from the poet’s work, Drummond’s biography is presented, relating his historical context to the characteristics of each phase of his work. Then the analysis of the text fragments is resumed, now in a more qualified way. Each student is asked to reflect on the

passage in his or her hands and try to identify characteristics related to the stages of Drummond’s literary production. They are oriented to “dissect” the fragment by identifying and highlighting expressive





features such as language and punctuation figures. At the end of this part of the practice, which lasts two classes, each one presents their text, informing which phase they belong to and justifying this framework with evidence.

3 In the next two classes, the class is organized into four or five groups and each of them receives a college entrance exam or Enem question about the author. Students are invited to discuss the question, answer it and present their answers and reflections to the rest of the class. Finally, a mock test is organized with approximately 20 questions about the poet. The kids answer the questions individually and receive a grade.



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É O MAIS ALTO DO MUNDO.
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EVALUATION

The participation and interaction of the kids throughout the activity is analyzed. In addition, the way these students treat the author’s work also counts. A grade is given to the simulation.

RESULTS

The practice made it possible for the literary study to be carried out in a pleasurable manner and connected with the life and experience of each student. Excerpts from the author’s existentialist phase had a greater impact on the class, encouraging the kids to bring their own stories to read. Dynamics also developed their skills in text interpretation. Finally, having chosen to do the reading and reflections in the library aroused the curiosity of the class, who began to search for Drummond’s books in the space.

LEARN MORE



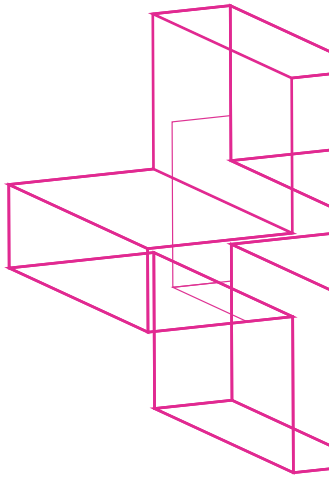
Teaching High School Literature and PCNs
[\[http://bit.ly/2JPwkTV\]](http://bit.ly/2JPwkTV)



Training literary readers: curricular parameters and teaching practices
[\[http://bit.ly/2C8qEQV\]](http://bit.ly/2C8qEQV)



Movement for the Common National Core Curriculum
[\[http://bit.ly/2qmQCgC\]](http://bit.ly/2qmQCgC)



READ, LIKED AND SHARED

KEYWORDS

#READING
#LITERATURE
#ENJOYMENT

AUTHOR
ROSÂNGELA MENDONÇA

WHAT IS IT?

In this activity, students point out books they have read for enjoyment to their classmates using a virtual platform. From the nominations, the class votes to choose which work will be read by the group. Thus, the book is then debated by everyone in the classroom, and students are invited to interpret it, contextualize it according to the literary movements studied and make an analogy with current facts.

SUBJECT AREA



LANGUAGES AND
THEIR TECHNOLOGIES

CURRICULUM
COMPONENT



PORTUGUESE
LANGUAGE

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



EMPATHY AND
COOPERATION



CULTURAL
REPERTORY

WHY DO IT?

Reading and textual interpretation are challenges for schools today: forcing students to read literary works can make the practice uninteresting, dissociated from the pleasure of choice, making it more often difficult to interpret and contextualize. From this observation, the project “Read, liked and shared” is born, which brings a new look to school knowledge, contributing to the elaboration of textual productions.



RESOURCES

- Computer or other device with internet access; multimedia projector; and the paradidactic book.



CLASS TIME

- This activity was developed in four classes, 50 minutes each.

HOW TO DO IT?

Attention: The teacher begins the activity of the year with a conversation with students about reading and textual interpretation. The goal is to understand their difficulties about the books indicated in the curriculum and analyze what kind of reading generates enjoyment for the kids and for what reasons, leading them to express their likes and desires.

A mediator student presents work to colleagues with help from monitors.

1 Two students are elected at the beginning of each month to implement and monitor project actions. With the class and teacher, choose which platform will be used to compile the book nominations for all students and the survey that will indicate the book to

be worked on. This activity can be done by social networks like Facebook, Google Forms, WhatsApp or other technology that is available to everyone.

2 About 15 days after the monitors have been defined and the class is aware of the activity, the two chosen students open the indications on the platform for 24 hours. In the case of the classes at Cícero Dias State Technical High School/NAVE Recife, WhatsApp and a closed Facebook group were used. During those 24 hours, the other kids send their book nominations.

3 A few days after the nomination list is closed, the monitors compile the list, share it with everyone, and open another 24 hours of voting on the same platform. Each person can only vote once for the book they want to read. After the voting, the same monitors



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CÍCERO DIAS

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tell the class which one is the winning book and who will present it to everyone, that is, who will be the mediator of the work. This person is chosen because he or she was the first to make the nomination in the initial poll. If more than one person has nominated the book, they can all mediate. The whole class should read the work and the teacher will define how much time they will have for it.

4 On the day of the presentation of the book to the class, the student mediator presents the work to their classmates with the help of the monitors. They will briefly summarize the story in ten minutes, and the monitors will participate in this presentation by helping to contextualize the book according to the literary movements studied, and relate it to current issues. A debate opens with the class from the exhibitions. A rapporteur,

also chosen from the class, is responsible for making a logbook of what happens on that day, recording the debate among the students, how the contextualization was made, how the participation of each student was, in writing. From this record it will be decided that students will earn a “bonus star”, a prize that is reverted

to extra points at the end of the quarter, for participation and understanding of what is being debated. The star, delivered by the teacher, must be stored by the kids themselves.



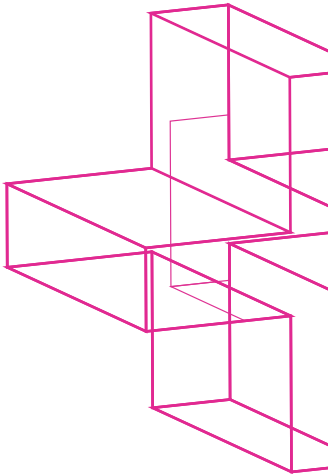
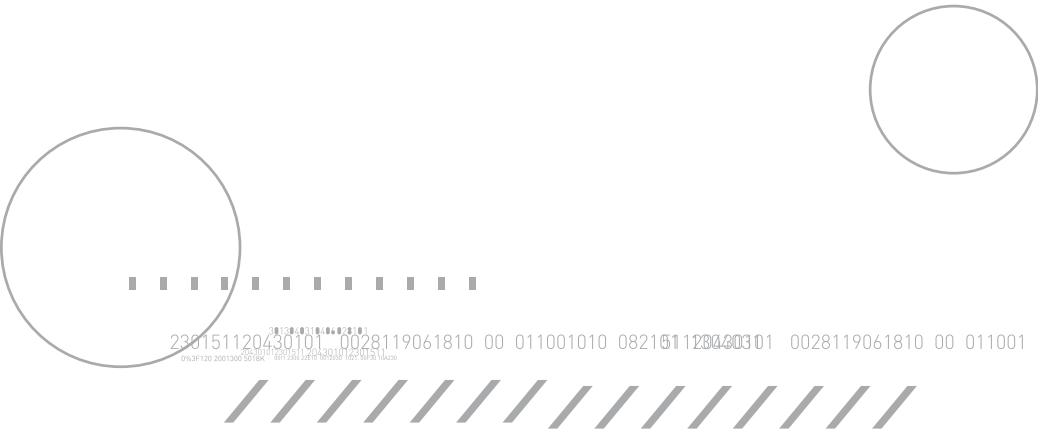


EVALUATION

The evaluation in this practice occurs continuously from reading, textual interpretation and effective participation in the discussions promoted. The analysis of literary knowledge was performed through fixation exercises and the elaboration of dissertative-argumentative texts, applied as a post-practice activity that were worth points.

RESULTS

There has been a considerable increase in the number of works read in the two months by the kids. With this practice, it is also perceived that it is important to empower the student-reader, from an indication of their own work, the conduct of discussions and the contextualization of books with literary movements. The grades of the internal evaluations went up and there was also an improvement in the vocabulary and arguments of the students' textual productions.



IT'S CORDEL

KEYWORDS

#LINGUISTIC_VARIATION
#TEXTUAL_PRODUCTION
#RATIONALITY

AUTHORS

ROSÂNGELA MENDONÇA
ROAN SARAIVA
FLÁVIA CAVALCANTI
PATRÍCIA OLIVEIRA

WHAT IS IT?

This activity invites students to write troubadouresque songs and fables, and then turn them into popular cordel poems, a popular literary genre very common in northeastern Brazil. As part of the practice, the kids also do stencil workshops, a painting technique for reproducing images. Thus, they illustrate their productions, which will give rise to a great exhibition at the end.

SUBJECT AREAS



LANGUAGES AND
THEIR TECHNOLOGIES

CURRICULAR
COMPONENTS



PORTUGUESE
LANGUAGE



ART

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



CULTURAL
REPERTORY



SCIENTIFIC AND
CREATIVE THINKING

WHY DO IT?

Most times, the kids show little knowledge about the cordel - its origin, its structure, its illustrations, and its importance to Brazilian popular literature. With this practice, there is a cultural recovery of this literary genre, whose origins date back to the 16th century, in Portugal, and later gained its own contours in Brazil, especially in the Northeast from the 19th century. XIX. It is an invitation for students to realize how rich our country is in separate linguistic variations that they understand that regional characteristics must be respected and praised. There is also the opportunity to fully work the knowledge of the Portuguese Language and Art.



RESOURCES

- For the stencil workshop: differently themed figures, black ink, sponges, A3 paper, x-acto knife, double sided tape.
- For classes and the final exhibition: projector and stereo.



CLASS TIME

- This activity was developed in 13 lessons, 50 minutes each.

HOW TO DO IT?

Attention: **students create fables or troubadouresque songs and then turn them into cordel poems.**

1 The Portuguese language teacher should start the activity telling the students about the origins of troubadouresque, fables and cordel, over two classes. References to support the teacher can be found by clicking on the following links:

- **Fable**¹
- **What is a fable**²
- **The magic of cordel literature in Brazil**³
- **The origins of cordel**⁴

2 In the next two classes, students take part in a challenge: group together a fable or lyrical troubadouresque songs. At the beginning of this step, the teacher should discuss their ideas with students and talk with the groups about the ways to develop their stories.

3 After the texts are ready, the kids should turn their stories into popular cordel poems over two classes, keeping the same previous plot.

4 The kids participate in two stencil workshop classes with their art teacher to understand how the illustrations of the story can be made.

The stencil was chosen as an alternative to woodcut, a technique of reproducing drawings often used to illustrate cordel poems and involve carving of a piece of wood for image reproduction. The stencil is used here as a process facilitator. At this point, they can start drawing their story illustrations for the poster and cordel booklet they are going to produce. It is interesting to show students how the two techniques are mentioned.

5 Over the next two classes, the educator proposes a debate on linguistic variation from the movie “Cine Holliúdy - O artista contra o caba do mal”, by Halder Gomes. The film is



1. Fable
[<http://bit.ly/32eg0Tk>]



2. What is a fable
[<http://bit.ly/2Ceg6zH>]



3. The magic of cordel literature in Brazil
[<http://bit.ly/36AchCC>]



4. The origins of cordel
[<http://bit.ly/2reCTcr>]



set in the countryside of Ceará, in the 1970s, and tells the story of the owner of a small cinema in the city who has the difficult task of keeping it working after the popularization of TV. Some say that their characters speak “Cearense” [Portuguese dialect of that region]. “Cine Holliúdy” can be a good starting point for working on linguistic variation, addressing the issue of regionalism with students.

6 Based on reading the texts from Marcos Bagno’s book “Preconceito linguístico” [Parábola Editorial], the teacher can propose another debate on linguistic variation, this time focusing on the issue of prejudice, lasting two classes.

7 Having gone through the production of the poem, the stencil workshop and also the exhibition of the film, reading the text and debates, the students

are invited to put their posters and cordel booklets together, now with the Portuguese Language and Art teachers, to combine the texts they wrote with the stencil illustrations.

8 In the last stage of the activity, students set up an exhibition of their work, which will be visited by the entire school community, including their families. In addition to the exhibited booklets and posters themselves, they can also set up a scenario with a projection of cordels of reference, accompanied by regional music. The duration is one full day of activity.

Some cordel video references below:

- **The birth of Jesus, a cordel about Christmas**⁵;
- **The rooster**⁶.



5. The birth of Jesus, a cordel about Christmas
[<http://bit.ly/2PL5U9R>]



6. The rooster
[<http://bit.ly/2oQTDWo>]

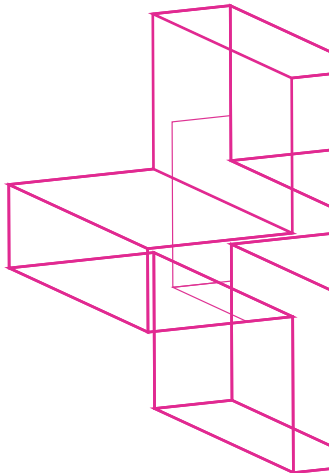
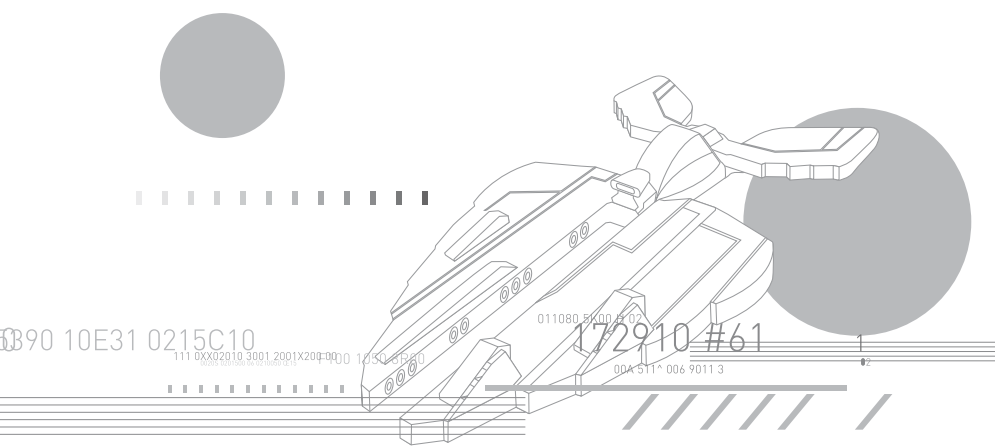


EVALUATION

Students are evaluated at each stage of the activity based on their motivation and creativity, as well as participation in debates on linguistic variation and linguistic prejudice. The teacher can also specifically evaluate the production of the cordel, checking the structure from the rhymes, metrics and mastery in the development of poetic syllables, as well as making posters and booklets with illustrations.

RESULTS

The developed project happened in an integrated way, allowing knowledge exchange and collaborative construction. Students were mainly motivated to present their work to the entire school community. The experience was rich in learning, satisfaction and creative possibilities.



TROUBADOURS

KEYWORDS

#TROUBADOURESQUE_LITERATURE
#POETRY
#MÚSICA

AUTHOR
PATRÍCIA OLIVEIRA

WHAT IS IT?

This activity brings troubadouresque poetry, dating from the twelfth century to the most current context and they work orality and music. The teacher presents recent songs that resemble these ancient poetry, both in structure and in theme. At the end, as a highlight of the project, there is a music festival, called Trovadorâneos.

SUBJECT AREA



LANGUAGES AND
THEIR TECHNOLOGIES

CURRICULUM
COMPONENT



PORTUGUESE
LANGUAGE

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



KNOWLEDGE



CULTURAL
REPERTORY

WHY DO IT?

Historical themes, far from our day, can be considered uninteresting to the kids. Trying to draw a parallel between the content covered in the subject and something that is close to their reality brings the subject to life. With this activity, it is possible to reflect, from music, on the views of men of the twelfth and twenty-first centuries. Poetry work is also key to presenting and debating this genre with the kids.



RESOURCES

- Computer with internet access, paper, pen, musical instrument, microphone, speaker and cellphone.



CLASS TIME

- This activity was developed in eight classes, 50 minutes each.

HOW TO DO IT?

Note: **What songs today address the same themes as the troubadouresque songs? This is what students are looking for.**

1 The activity begins with two lectures to contextualize the historical events that influenced man in his production in the poetic field of Portuguese literature, focusing on their meanings, their structure [rhyme, stanza, poetic rhythm, syntactic inversion] and their most important authors.

2 In the next two meetings, the teacher explains the characteristics of troubadouresque songs, which may be of love, friendship, ridicule or cursing. Students also learn the difference between poetic syllables and grammatical syllables, how to make rhymes, which are paired verses and the structures of

the stanzas formed by major and minor syllables. Together with the class, the educator makes an analysis of the poems, identifying the aspects of their structure and their social function relevant to the period. Finally, everyone listens to D. Dinis's song of friendship "Flores do verde pino", to perceive the presence of the feminine lyrical self and all the musicality produced through the verses, rhymes and their metric.

3 Students do an internet search of current songs that may reflect the specifics of troubadourism. Divided into





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groups of five, over two classes, they should create a selection of the latest songs that address the same themes as troubadouresque songs [it can be friendship, love, ridicule or cursing]. The song “Robocop gay” by Mamonas Assassinas, for example, was associated with cursing songs, as it brings a direct satire without a double meaning. “Pátria que me pariu”, by Gabriel O Pensador, on the other hand, was classified as a ridicule song. “Sò eu sei”, by Jorge and Mateus, was pointed out by the students as a possible love song, in which men refer to women as idealized and distant figures.

4 The last stage of this activity is dedicated to the music festival. Each group has time to present a current song to the other students that indicates to have relationship with the troubadouresque songs. They need to analyze their theme and structure, explain why they chose the

song in question, and then sing it along with the class, with choreography and characterization. In the activity held at Cícero Dias Technical High School/NAVE Recife, the students used instruments, microphones, cell phones to film and to follow the lyrics, as well as the stereo. Each group has ten minutes to present.



O CÉU DE RECIFE
É O MAIS ALTO DO MUNDO.
CÍCERO DIAS



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EVALUATION

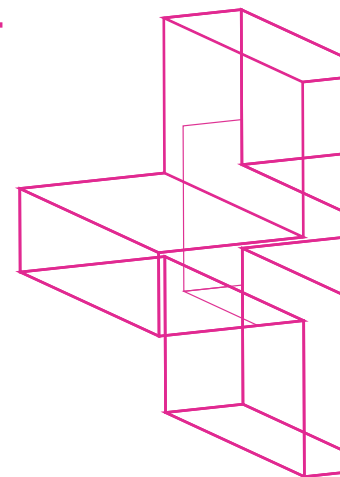
The evaluation was made continuously, based on the quality of the students' research, the group's complicity at the time of presentation, the creativity and the coherence of the analysis. This work was used as part of the second semester's final grade.

RESULTS

With this activity, students learned to select and prioritize important content to use in the exhibition presentation of the music of the songs that resembled structure and theme, understood how the production of poems and songs with the literary content of Portugal takes place and developed work critically, fun, creatively and pleurably.

LEARN MORE

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BRAZILIAN FUNK IS CULTURE

KEYWORDS

#AESTHETICS
#ARTISTIC_ANALYSIS
#MUSIC

AUTHOR
AGNES D'ALEGRIA

WHAT IS IT?

In this activity, students are invited to relate Philosophy and Brazilian funk from Rio de Janeiro. Themes related to funk culture have a strong impact on the formation of youth, such as violence, sexuality, gender issues and prejudice. Students reflect on the relationship between aesthetics, art and cultural industry. Then they prepare lectures on Brazilian funk for the whole school, with the knowledge built throughout the process. A dance is held at the end of the lecture cycle.

SUBJECT AREA



APPLIED
HUMANITIES AND
SOCIAL SCIENCES

CURRICULUM
COMPONENT



PHILOSOPHY

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



EMPATHY AND
COOPERATION



CULTURAL
REPERTORY

WHY DO IT?

Brazilian funk is a potent form of artistic expression for the study of Philosophy, as it challenges the aesthetic notions of common sense. To make room for this rhythm in a school in Rio de Janeiro is to let students bring their experiences, interests and relationships as context and the culture in which they are inserted. The practice also creates a process in which the kids are invited to organize lecture-format classes on the theme for the entire school community. The best way to learn is to study to teach.



RESOURCES

- Computers or smartphones with internet access, multimedia projector and stereo.



CLASS TIME

- This activity was developed in 16 lessons, 50 minutes each.

HOW TO DO IT?

Attention: The activity begins with a conversation about the songs the class listens to. At José Leite Lopes State High School /NAVE Rio, Brazilian funk was cited, and the kids pointed out differences between the rhythm played on the radios and that released by DJs from the communities. The latter would have content closer to their reality. Therefore, it was decided to invest in more alternative Brazilian funk music. The teacher asked everyone to bring the songs and lyrics.

**Brazilian funk can be artistically analyzed,
like any other cultural manifestation.**

1 Three groups were created to deepen the following reflections: one would address issues related to the aesthetics of Brazilian funk, the other would reflect on issues of gender and sexuality in lyrics, and the last would address the social and urban aspects in which Brazilian funk manifests itself most strongly. Studies were done collaboratively in the classroom and each team produced a text. The exposition of each study was made from the presentation of the selected songs. After listening, in conjunction with reading the lyrics, text research and references were requested to support the reflections.

2 . To think about Brazilian funk aesthetics, students researched literary styles with expressive

characteristics common to Brazilian funk, especially Poesia Concreta. At the teacher's suggestion, they visited a site about the poet Augusto de Campos. Some concrete poems were chosen to be compared with Brazilian funk lyrics. For this, different Brazilian funk music were selected that use rhythmic marking through repetition of words and syllables, such as the song "Bumbum Granada", by MCs Jack and Jerry. This song is an example of how some



words are used in Brazilian funk more for the sound and rhythm value they have in the composition than for the message being conveyed. Another discussion that can be added is about the identification of metaphors and their effects on the generation of “double meaning” in other Brazilian funk of the genre. Finally, these aesthetic reflections were articulated with texts by authors who discuss the Cultural Industry. Excerpts from the books “The Society of the Spectacle” by thinker Guy Debord and “A sociedade do Espetáculo” by the Theodor Adorno were read. Mediation was conducted by prompting students to answer some questions: Why does this style of music receive criticism? Why is it not considered an artistic manifestation by many? What can we say about the lyrics? What are these criticisms based on? Can they be considered fair?

3 To address gender and sexuality issues, three Brazilian funk songs were selected to discuss the role of women in society: one by MC Marcelly, titled “Não se brinca com mulher”, and two other songs by MC Carol, “100% Feminista” and “Meu namorado é mó otário”. After listening to the selected songs, the kids should use their smartphones to research search engines to identify ads that treat women as objects or encourage the separation of roles between men and women. One particular ad for beer was selected by the kids as the most representative to substantiate the reflections on the role given to women in society. The contents of the ads were compared to those of the chosen Brazilian funk songs and a debate was proposed. The guiding thread of the teacher’s mediation was to provoke students to reflect mainly on the objectification of women.

4 To discuss social issues and the relationship of funk with urban territories, the first episode of the documentary series “The Truth About Funk”, produced by Brazilian funk artist Maestra Misteriosa, was aired. The other episodes were made available to anyone interested. Other songs were played in the room, such as MC Guime’s “Plaque de 100” and “Firma milionária”, written by Menor do Chapa. Both compositions are exemplary of a category called by students as “ostentatious Brazilian funk” and allowed a discussion about the ideal of consumption and wealth as a means of socially imposing oneself. Brazilian funk songs denominated as “prohibited” by the kids, such as “Favela é lugar de paz” by MC Rodson, “Papo de melhoria” by MC Cuca, and “Conselho de Patrão” by MC Yuri were also listened to. This set of songs allowed specific aspects of the reality of the favelas

to come up, mainly related to violence. The social, economic and cultural significance of Brazilian funk dances for communities was also worked on.

5 At the end of the process, each group prepared a class with the theme on which they were responsible. The students organized these classes in the form of a lecture, that is, they gave an oral exposition interspersed with the presentation of several Brazilian funk songs. The songs were incorporated into the lectures as a basis and illustration for the reflections presented by them. The presentations took place in the auditorium for the whole school community, in order to show that Brazilian funk can be artistically analyzed, as any other cultural manifestation. This culminating moment ended with a Brazilian funk dance.



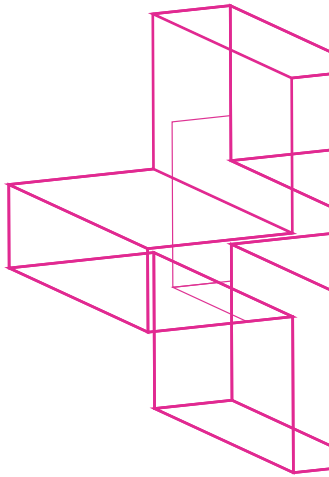
EVALUATION

The evaluation is made on the written records, observing the qualification of the reflections, mainly on the concept of aesthetics and the theoretical knowledge related to the Cultural Industry. In classes organized for the entire school community, the development of critical thinking and the ability to articulate reflections with the songs presented are observe.



RESULTS

Using a musical manifestation that is part of the student’s culture has enabled engagement and motivation. The practice also made them think about the social prejudice towards some territories of the city, such as the slums, making connections with reflections on aesthetics. Since many students live in these communities, this was also a time to reflect on their own aesthetic experience. The kids involved also did several experiments supported by a student who was learning how to produce Brazilian funk mixes and was already having their first parties. Interestingly, they decided that “prohibited” Brazilian funk songs should not be played in the dance class held in the auditorium, preferring to have the positive impact Brazilian funk has on communities.



NIGHT OF THE MASKS

KEYWORDS

#IDENTITY
#HUMAN_CONDITION
#PHILOSOPHICAL_ANTHROPOLOGY

AUTHOR
JOSÉ GILBERTO

WHAT IS IT?

The activity described proposes a great reflection on the formation of our identity from the song “Noite dos mascarados” by Chico Buarque and the question “Who are humans, anyway?”. Students are invited not only to debate but also to produce masks as part of their research into human nature and condition.

CURRICULAR COMPONENTS



ART



PHILOSOPHY



PORTUGUESE LANGUAGE

SUBJECT AREAS



LANGUAGES AND THEIR TECHNOLOGIES



APPLIED HUMANITIES AND SOCIAL SCIENCES



HIGH SCHOOL



ADULT LEARNING

SKILLS



COMMUNICATION



EMPATHY AND COOPERATION



CULTURAL REPERTORY

WHY DO IT?

Our identity is not something absolute or definitive, but an unfinished process. It is important for this kids to think about this, to develop their own reflections on human stereotypes and archetypes, so that they break defining models. This practice also brings the possibility of working the same reflection from different languages, with writing and art.



RESOURCES

- Computer or other device with internet access, projector and stereo (for discussions and reflections on music, poetry and paintings);
- Cardboard, paint, glue, balloons and other materials needed to make masks, depending on the technique the teacher or students choose.



CLASS TIME

- This activity was developed in 12 classes, 50 minutes each.

HOW TO DO IT?

Attention: **what is the meaning of the phrases made? Is it true that everyone from bahia is lazy? That all blondes are dumb?**

The activity begins with the song “Noite dos mascarados” by Chico Buarque. The teacher puts the song for students to listen to and then opens a space for reflection on the labels we use to define others and ourselves, the premeditated ideas we make of people, and the concepts we have about ourselves. The educator also brings a debate about the “mask” that we often use not only to pretend to be what we are not, but also as protection. Students are invited to reflect on the different roles of the “masks” we have created and how our personality is

constantly being built. This is the bridge to the notion of identity, something that many think is already done, but is always being built. This first debate lasts one class.

2 In the next class, with the image of a ballerina’s feet and the song “Ciranda da Ballerina” by Chico Buarque, the teacher started a debate about stigmatization. The proposed reflection is about how often people already have formatted ideas created about each other.

3 The third class debate revolves around the idea of nature and culture. There are some “catchphrases” that people often use in their daily lives, such as “Every blonde

is dumb”, “All women were born to become mothers”, “Men don’t cry”, “People from Bahia are lazy”, among others. Phrases can be projected on slides by the teacher during the discussion. The text accompanying the reflection is “Natureza e cultura”, by Maria Lúcia de Arruda Aranha and Maria Helena Pires Martins, from the book “Filosofando: introdução





à Filosofia” [Editora Moderna]. Poems like Carlos Drummond de Andrade’s “O homem” and Luis Fernando Veríssimo’s “O único animal” can also be used in this debate.

4 When discussing the idea of nature, one realizes that it is not simple to define human nature. Therefore, it is not possible to define humans, only to understand their actions in the world, with themselves and with others, their abilities and potentialities. Thus, in the next class, students are divided into groups of five and each team must choose a human

facet to debate. Among these facets are materiality, rationality, psyche, expression, sociability and politicism, freedom, ethics, aesthetics, infinity, perfectibility, and of not being finished. There are good texts to use in this debate, such as Leonardo Boff’s book “A águia e a galinha” [Editora Vozes], which presents a metaphor of the human condition through the story of an eagle that, having been captured by a peasant, was raised with chickens. The teacher may also resort to texts such as “O homem, quem é ele, afinal”, by Sônia Maria Ribeiro de Souza, from the book “Um outro olhar: filosofia” [FTD]. This part of the activity lasts anywhere from two to four classes.

5 After all the discussions and reflections, the time has come for the mask workshop that can be done in conjunction with the Art subject. Students

in the same previously divided groups can choose the technique they will use. The idea is that the masks represent, by means of a symbol, what was previously debated, in writing and orally. Some students in this activity have already chosen to reflect on the concept of “beautiful”, others have also made an association between humans and nature.

6 With the masks ready, a round table is held during a class, with the participation of all kids in the class, to see what they understood and the dimensions they chose to work on. The space is also open for everyone to ask each other questions.

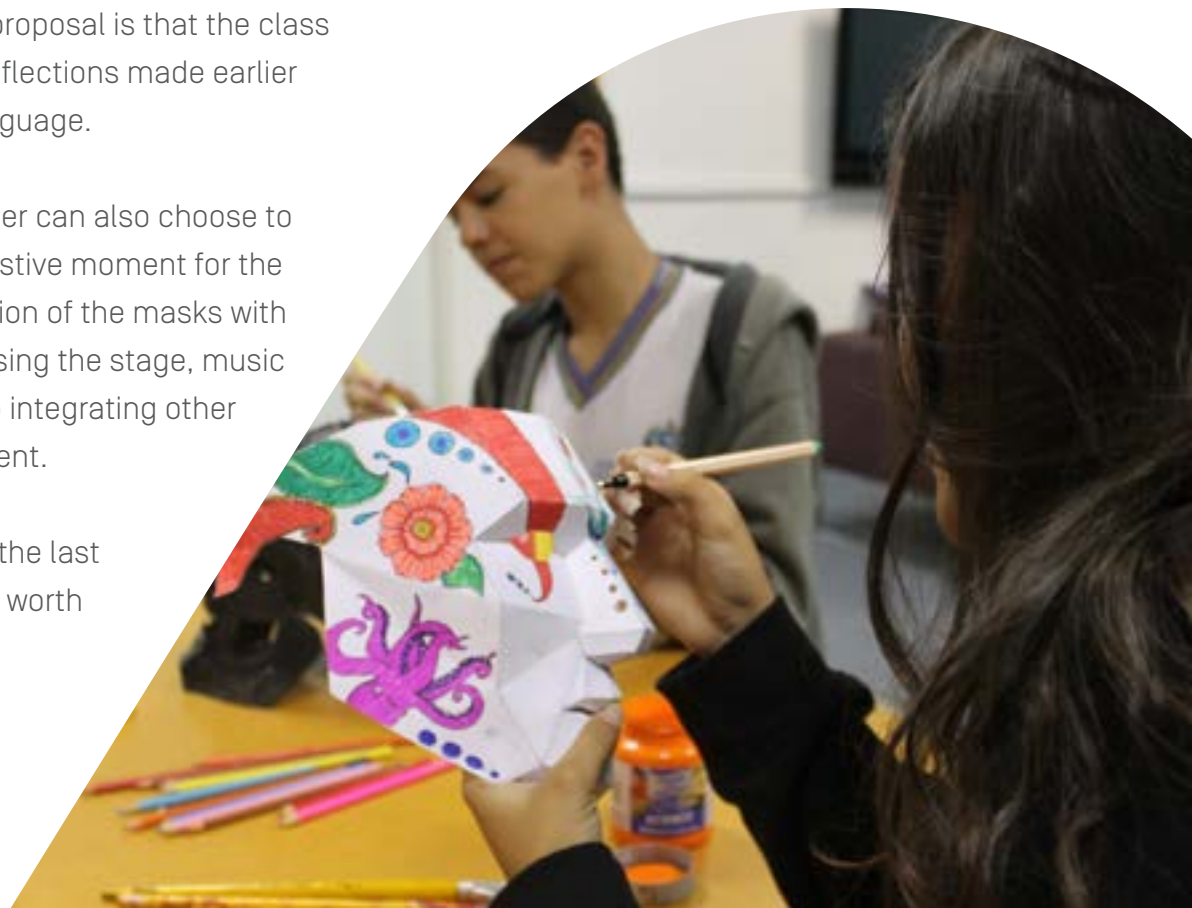
7 Now is the time for the artistic performance workshop. In this part of the activity, which lasts one

class, it is interesting to have the theater or Portuguese language teacher of the school. In the practice held at the Cícero Dias Technical High School/NAVE Recife, former high school students who are now performing arts students were invited to participate. The proposal is that the class represents the reflections made earlier through body language.

8 The teacher can also choose to make a festive moment for the presentation of the masks with performances, using the stage, music and lighting, also integrating other classes in the event.

9 Finally, in the last class, it is worth meeting

individually with the students to talk about the experience as a whole, let them point out their anguish from what they discussed, the new knowledge, perceive possible difficulties they still have.



EVALUATION

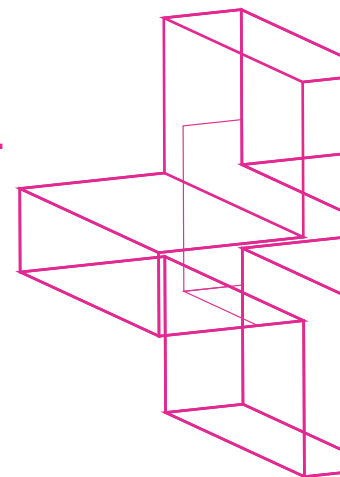
There are three basic moments of evaluation in this activity. The first is in the process of how understanding yourself and the other unfold in the challenges of understanding each human dimension. Observation of doubts and discussions is fundamental. The second moment of evaluation is the result of the research, the challenge of translating reflections on performances and masks. Finally, integration is also evaluated, both within the group and between groups, especially during socialization.

RESULTS

In addition to developing a researching, reflective and critical spirit, this activity promoted students' encounter with art and the various languages that are necessary for understanding the world. Reflection on the formation of identity as a process has repercussions on our understanding of the other. In this way, a more active relationship with oneself and with the other develops - there are issues of autonomy and otherness. The change in students' attitudes about verifying other truths, not just those we already know, was noticeable.

LEARN MORE

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RAP BATTLE FOR DIVERSITY

KEYWORDS

#EQUITY
#RACISM
#BLACK_CULTURE

AUTHOR
SANDRO MENEZES

WHAT IS IT?

A good way to promote reflection on black youth may be through artistic expression. In this activity, students participate in a series of creative processes and sensory experimentation with a black dance, Afro cinema and pop culture workshops, poster creation and music composition.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



MULTIMEDIA

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



EMPATHY AND
COOPERATION



CULTURAL
REPERTORY

WHY DO IT?

This practice was thought from the observation of episodes of prejudice and racism in school. The proposal starts from the development of the creative potential of young black people from the low-income suburbs, promoting changes and transforming these students into artistic references and leaders in the educational institution. It is an educational and mobilizing strategy that seeks to strengthen integration and appreciation, so that everyone reflects on issues related to the periphery and black culture. For all these reasons, this activity has the potential to inspire the teaching of Afro-Brazilian culture and to have several developments in other educational contexts.



RESOURCES

- Multimedia projector, computer, speaker and computer with internet access



CLASS TIME

- This activity was developed in 14 lessons, 50 minutes each

HOW TO DO IT?

Attention: **students get a space to express themselves artistically.**

1 The activity begins with a debate that seeks to identify the relationship of the school community with the racial issue. Conversations with students and educators are organized around questions such as: how many and which students identify as black? What knowledge do you have about the culture of the low-income suburbs? Who has experienced any situation of prejudice for living in a certain territory of the city? The dialogue established at the José Leite Lopes State High School/NAVE Rio brought some new aspects, which were

unknown to the teacher responsible for the activity. For example, many students were already listening to rap, others were already attending rap and impromptu battles in the city, and several had a talent for expressing themselves musically.

2 Based on the reflections and perceptions of this first conversation, a space was created for students to express themselves artistically. Then, four workshops were proposed: black dance, afro cinema and pop culture, graphic poster creation and music research and composition.

3 The black dance workshop takes place on a “dance floor”, which can be set up in a spacious

environment. The teacher becomes a kind of DJ and, from YouTube videos, tells the story of black music chronologically. The indication is that it starts with black songs sung on US plantations, blues, jazz and rap. In the activity performed at the school, the educator was inspired by the street parties that originated hip hop: wielding the microphone, made jokes, amped up the dance floor and told fun facts, as MCs [Masters of Ceremony] and DJs [Disc-Jockeys] do. The interventions brought historical data and made the students dance and express themselves freely. If the video was expressive, such as Grand Master Flash’s “The Message,” which shows the Bronx in the 1970’s, for example, the request was for students to reflect on the differences and similarities



with where they live. In this climate, the kids were establishing relationships between facts, questioning their certainties about the value of places, ideas, cultures, forms of expression and their ability to intervene and change the world. The history of black American music in 10 songs::

- “How I got Over” - Mahalia Jackson
- “Crossroad” - Robert Johnson
- “So What” - Miles Davis
- “Didn’t It Rain” - Sister Rosetta Sharp
- “Maybellene” - Chuck Berry
- “Respect” - Aretha Franklin
- “Whats Going On” - Marvin Gaye
- “I Feel Love” - Donna Summer
- “I Want You Back” - Michael Jackson
- “Fight The Power” - Public Enemy

4 The workshop on afro cinema and pop culture also requires a large space, which must be organized in

the form of a cinema. The teacher begins by showing the pilot of the series “The get down”, which shows, from the imagination, the precise moment of the creation of hip hop. Then students watch a series of film clips about the impacts of African American culture on today’s pop culture. The idea is for students to realize that much of what we consume today, in terms of symbols and references, comes from the post-diaspora ghetto culture. This includes, for example, sports jackets and sneakers and musical genres such as rock. Finally, from videos showing classic work of black music and then a sampled reference [excerpts from songs incorporated in others], students are urged to make comparisons. The goal is to understand that rap and Brazilian funk beats are mixtures of excerpts from the 1970s black music classics. That is, they are pieces of black history.

Examples that can be used to compare black music to sampled beats:

- Isaac Hayes, com “Hyperbolicssyllabicse sqedalymistic”, sampleado em Public Enemy, com “Black Steel In The Hour Of Chaos”
- Timmy Thomas, com “Why Can’t We Live Together”, sampleado em Drake, com “Hotline Bling”



5 For the graphic design workshop, students should think of posters that project a future without prejudice. They are presented with a series of images that tell the story of this graphic piece, with examples of work done for social transformation campaigns. It is worth showing students the work of Emory Douglas, Black Panther's minister of culture, who was an illustrator and designer and created various symbols associated with anti-racism. Another nomination is the creations of Shepard Farley, responsible for the viral poster that helped Barack Obama get elected. There are also the works of Banksy, as well as other artists/activists, that can be part of this workshop. After learning about these references, students are encouraged to search the Internet for social issues in Brazil, as well as data from NGOs and human rights

associations. The guide is to look for campaign-related hashtags to address these social issues. Finally, the kids should organize themselves into groups and create posters for a hashtag they have chosen from among those that appeared in the survey. Divided into groups of five students, they themselves must make a poster. A team that participated in this practice, for example, chose the #LibertemRafaelBraga campaign. Their research has shown that racism leads to a large number of black youth arrests and killings. The poster made by the group, from images found on the internet and a graphic photo application, brought a package of Pinho Sol (the same type that was used by police as evidence for the arrest of Rafael Braga) and the arm of a white police officer, representing structural racism.

6 The last workshop is the research and musical creation. In it, the kids are divided into teams and each group must research a historical era and/or style of black music, from the beginnings of black music, through jazz, groove and hip hop. Students elect the great artists representing these styles and their most successful songs. After research, they should create verses about their daily lives and digitally assemble basic electronic beats. In the activity described here, a rap circle was performed involving the entire school, and the event was called Roda do Zé, the NAVE rap battle.

EVALUATION

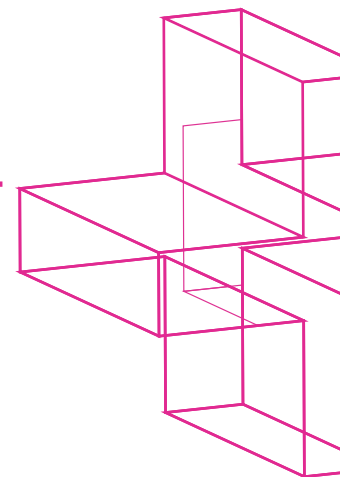
The teacher can evaluate student participation and engagement, as well as the technical results of graphic and musical work.

RESULTS

Creating a rap circle was so significant that it became a permanent cultural manifestation of the school. Students were recognized for their artistic expression, strength and beauty, becoming a reference for the school community. In an event where the school opened its doors to the public, the students held a Roda do Zé that hosted young rappers known from the surrounding region. It was led by Betinho, MC and creator of Roda da Vila, the most important of the Northern Zone of Rio. The students who suffered discrimination ended the school year engaged in studies and had better grades. The young creators of Roda do Zé now actively participate in the cultural circles of various parts of Rio, having won several battles and awards. In addition, Afronave, the school's black movement, was created, also founded as an offshoot of this series of workshops.

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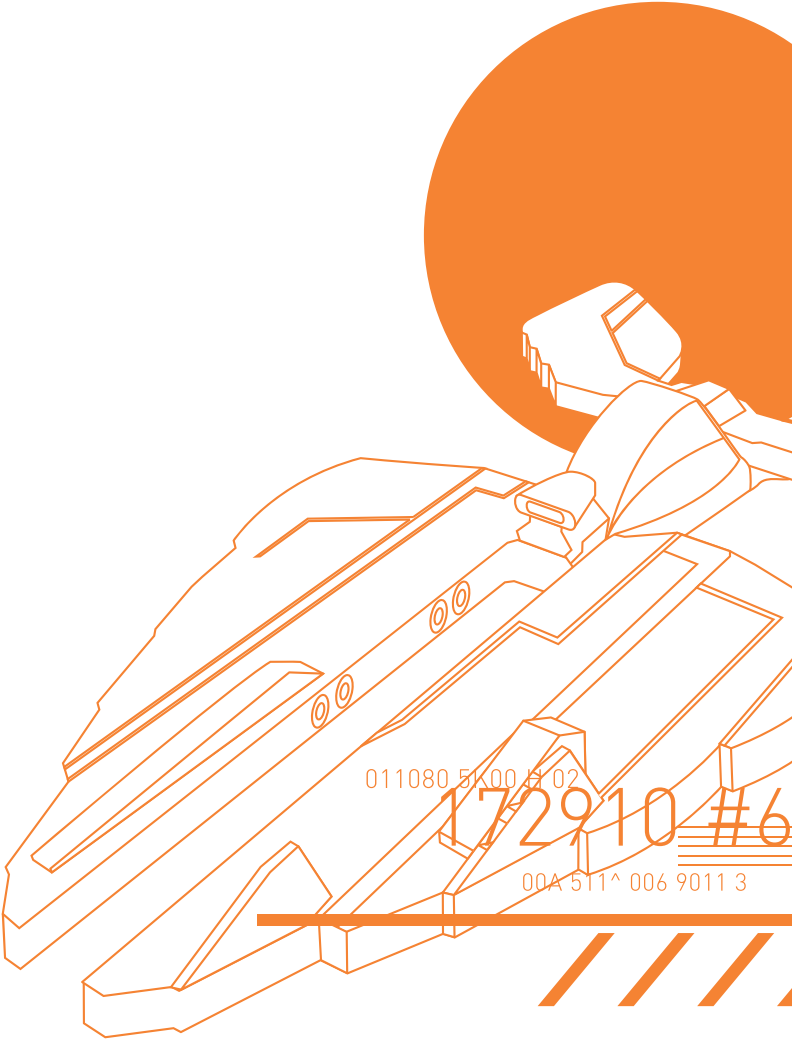


CHAPTER 4

TELL A STORY

TELL A STORY

A story can be told with words. And also with comics, still or moving images. It can be shared with the audience from a video, text, or photo exhibit. There are many ways to compose a narrative, and each one mobilizes different skills in those who produce it: analysis, criticism, or perception of different languages. In this part of the book, practices prompt students to narrate. Why not suggest turning the contents of physics into comics? When we ask you to tell a story, we open a world of possibilities. It is a time when the kids share: they talk about others, but at the same time they talk about themselves between the lines, the place they occupy, the way they see the world.



WHEN I WAS 10 YEARS OLD...

KEYWORDS

#LETTER
#TEXTUAL_EXPRESSION
#SELF-AWARENESS

AUTHOR
ELIZABETH CALDAS

WHAT IS IT?

Each student is invited to write a text for themselves, imagining themselves at the age of 10. The proposal is to produce a letter that brings reflections and recommendations that the kids think would have been helpful to themselves when they were this age.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



SCREENWRITING

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



ARGUMENTATION



SELF-AWARENESS



COMMUNICATION

WHY DO IT?

Textual expression in the school environment is usually restricted to the dissertation modalities or the writing format of the Exame Nacional do Ensino Médio- ENEM [National High School Exam]. Writing turns into a mechanical practice that is far from the interests of students. This activity challenges the kids to construct a narrative from a time-shifted point of view, which engages their creativity. Students also reflect on their place in the world within society.



RESOURCES

- Paper and pen or computer.



CLASS TIME

- This activity was developed in three classes, 50 minutes each.

HOW TO DO IT?

Attention: **the reflection is: what would be important to know at 10 years old?**

1 The educator invites the students to produce a letter, imagining that they will receive it themselves, only at 10 years of age. This is a step of creating references for a good understanding of the proposal. The teacher will allude to public letters, books and films that are narrated from a displaced point of view or that address the theme of maturation, of the passage of time. They can tell stories about people who leave letters to be opened in the future or when they die. At the activity held at José Leite Lopes State High School/NAVE Rio, students were introduced to excerpts from the book “Cartas a um jovem poeta”. The work tells of a poet who writes to his idol and asks for advice to become a great

writer. The two exchange several letters that illustrate learning about the cycles of life well. In addition, an excerpt from the movie “Anna dos 6 aos 18” was also worked on. In it, the director records his daughter from 6 to 18 years. At each new age, the parent/director records the girl answering the same questions, which demonstrates how interests and understanding on certain issues change.

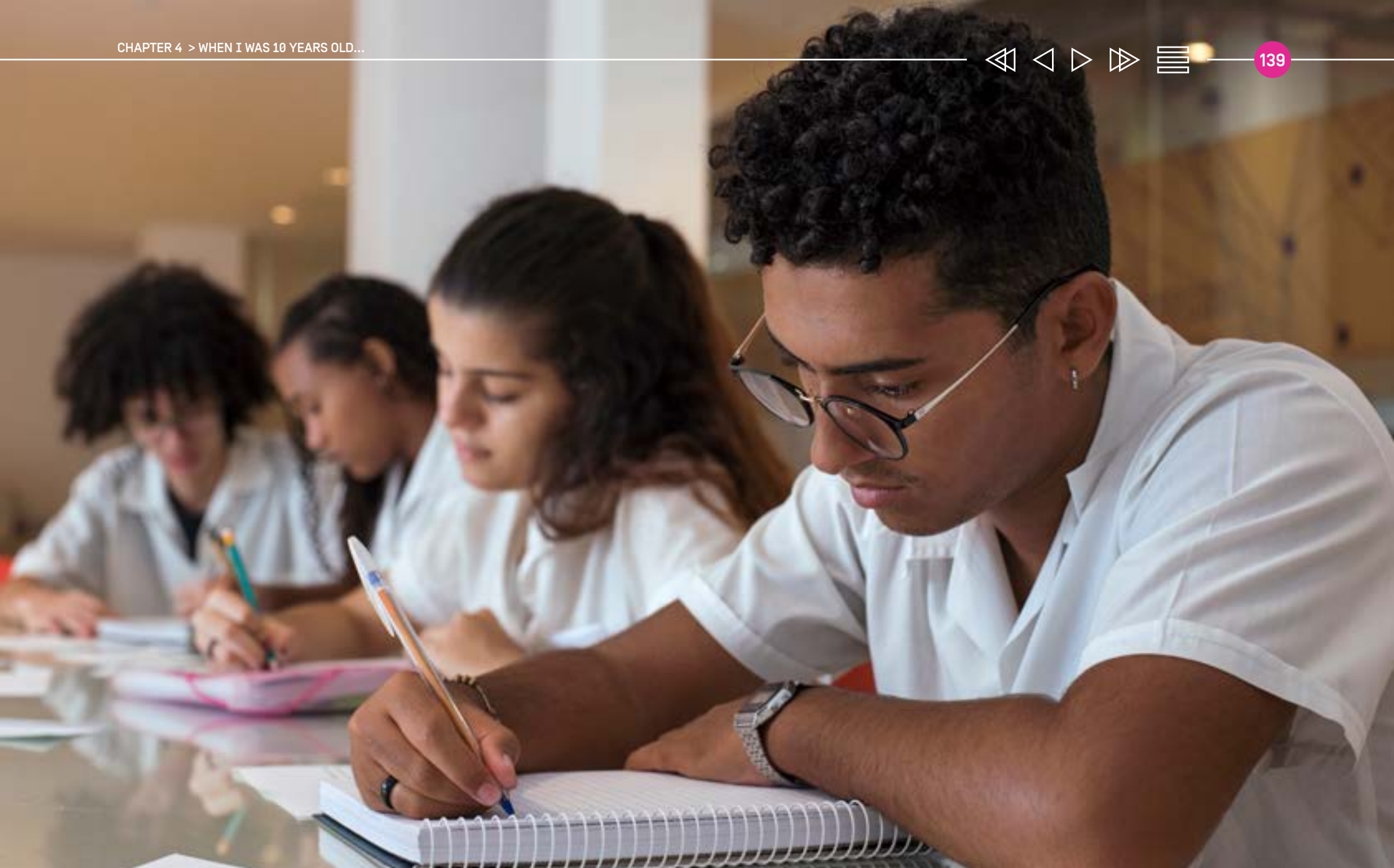
2 In the next class, students begin their writing process. The educator may ask questions to help them in formulating content, for example: What would be very important for me to know at 10? What recommendations would I make to myself? What should I prepare for? What would be important for me not to forget at this age? It is interesting to point

out to students that this must be a letter that welcomes the child they once were, that reflects on the feelings of the time. It is recommended that the cards have between 20 and 30 sentences. At the end of the class, the texts are collected and the teacher makes corrections.



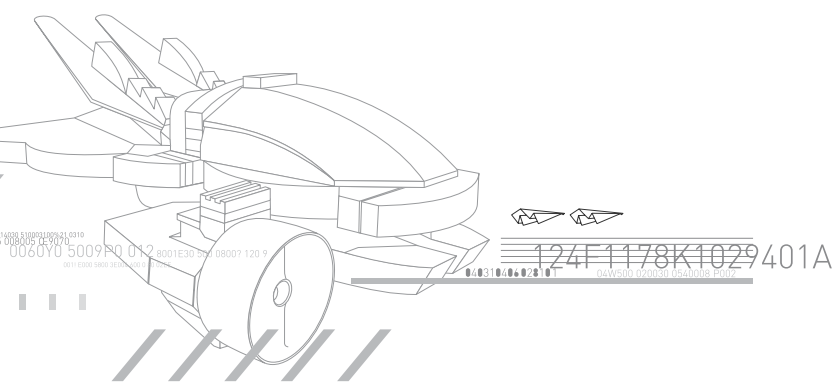


3 At a later meeting, the teacher returns the letters and asks the students to organize themselves into groups and highlight common themes among them. One way to streamline this content sharing is to ask them to exchange texts with each other. Thus, each one reads their colleague's letter and identifies the main themes. Everyone talks in groups and signals which subjects are most recurring. Finally, students are invited to share their feelings and individual learning with the experience, reflecting on the importance of this reading. What would it be like if I had actually read this letter at 10? Would something change in my life today?



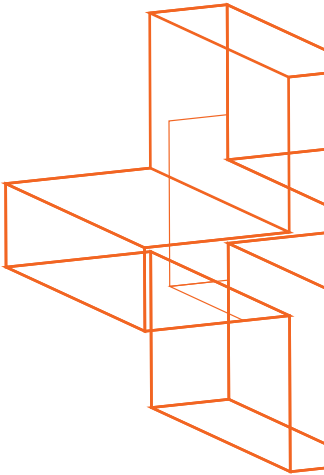
EVALUATION

In this practice, it is important to signal the skills of textual coherence, spelling and grammar, dissertation ability and understanding of the proposed theme. It is from them that the evaluation will be made.



RESULTS

Imagining yourself today, talking to the child you were at age 10 helps you understand who you are today. The kids involved in the activity mentioned in the letters, for example, the death of their grandparents, the separation of their parents, the intensity of their relationship with younger and older siblings. Being responsible for creating responses to these situations, even on paper, can be restorative. The fact of promoting the sharing and debate about the contents of the letters also makes the activity, at the beginning of individual written expression, become a collaborative process of textual production and rich in reflections about youth, growth process, relationships and emotions.



LEARN MORE

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THE CITY FROM A NEW PERSPECTIVE

KEYWORDS

#AESTHETICS
#PHOTOGRAPHY
#TERRITORY

AUTHOR
CECÍLIA OLIVEIRA

WHAT IS IT?

This practice invites students to take another look at where they live. The kids make photographic records, illustrations or paintings of the region where they live, as if they were foreigners. In this exercise, they are encouraged to articulate aesthetic contents learned in the Philosophy subject and provoked to break exclusively Apollonian beauty standards.

SUBJECT AREA



APPLIED HUMANITIES
AND SOCIAL SCIENCES

CURRICULUM
COMPONENT



PHILOSOPHY

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



EMPATHY AND
COOPERATION



CULTURAL
REPERTORY

WHY DO IT?

The traditional standards that define the beautiful are imprisoning and excluding. By looking differently at the urban space through which they circulate every day, the kids broaden their perceptions of beauty standards and create new meanings for where they live. This new way of viewing the neighborhood strengthens the sense of belonging and self-esteem in relation to where they live. Experience still makes them establish relationships between local and global territories.



RESOURCES

- Smartphones with a camera, papers, pens, brushes, inks, crayons, Philosophy textbooks.



CLASS TIME

- This activity was developed in 12 classes, 50 minutes each.

HOW TO DO IT?

Attention: **this experience may transform the student's relationship to the region in which they live.**

1 The activity begins with a meeting in which teacher and students discuss the concept of beauty. Everyone should talk about a place they

consider beautiful in their city. In a large class, the justifications should be brief so as not to get tiresome. As a student presents, classmates should make records of what is being said. At the end of this round of presentations, everyone should silently read their notes and answer in writing, the question: What do we consider to be beautiful? Then another round of expositions is made asking them to present their answers to the question.

2 At the second meeting, a new debate is proposed. The central objective of the discussion is to differentiate what would be the notion of a priori beauty and what changes when the notion of beauty is built on meaning.

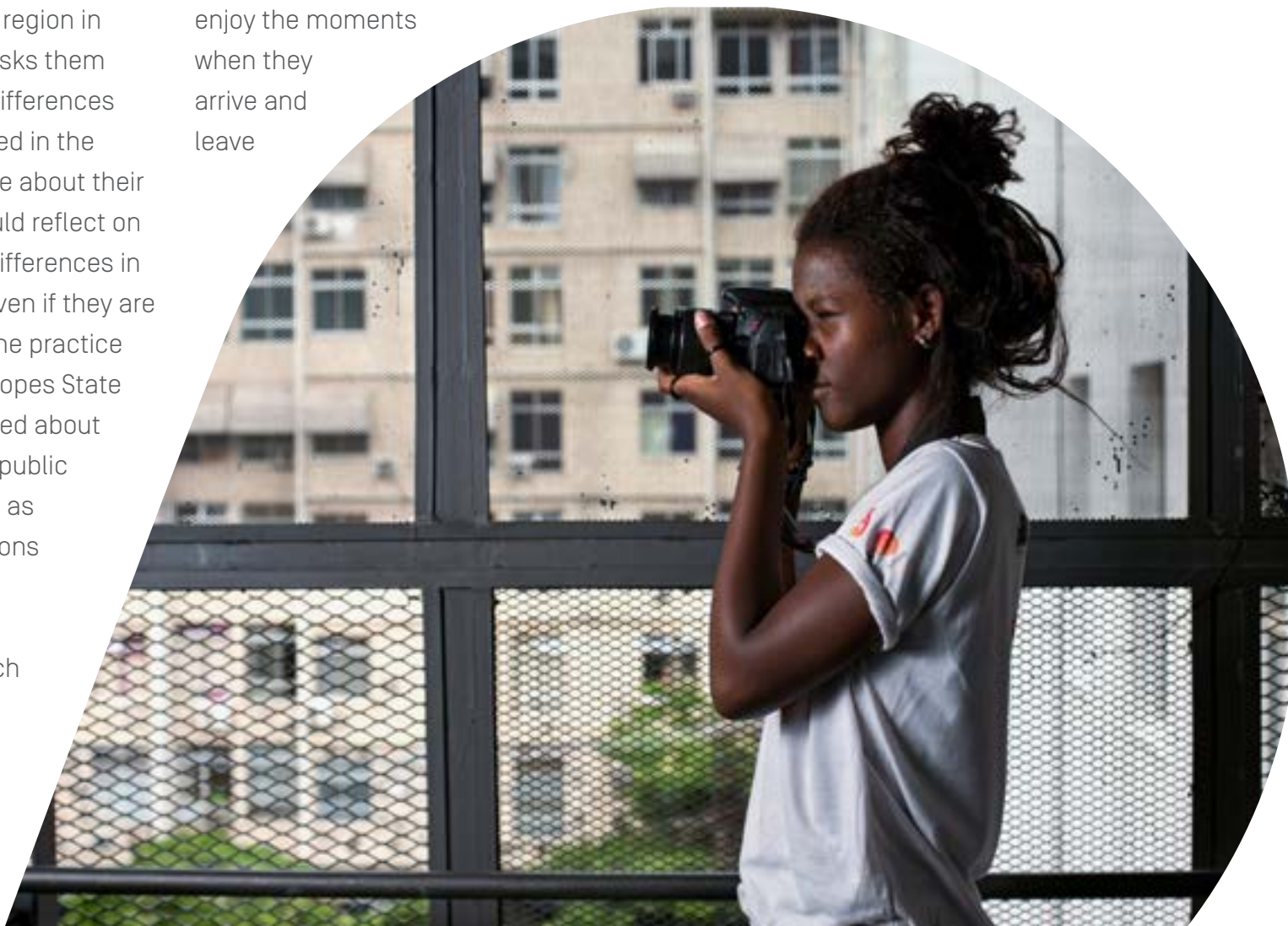
3 In the third class, the teacher presents images of various types of art: Renaissance paintings, performances, installations and graffiti. From this material, we propose a debate on traditional art and urban art. At the end of the class, students try to answer the following question: How does art affect spaces?

4 At the next meeting, the poetry “Do Tejo se vai para o mundo” comes in, by Alberto Caieiro (fictitious personality of Fernando Pessoa). The text deals with the unique and free character of the river that flows through the author's village, in contrast to the Tagus river, an exit for the great Iberian navigations and a very famous place in Portugal. Students skim and then there is a debate about



their reflections. During the conversation, they transpose the author's thoughts about the Tagus region to the region in which they live. The teacher asks them to try to find similarities and differences between the feelings presented in the text and the feelings they have about their neighborhoods. The kids should reflect on where they live and observe differences in their peers' neighborhoods, even if they are in the same urban space. In the practice carried out at the José Leite Lopes State High School/NAVE Rio, we talked about the city of Rio, which is full of public spaces generally represented as tourist traps. Thus, the questions arose: what is Rio de Janeiro of each student? How do we appropriate the places in which we live? Where are the other beauties - beauties of the small things, the everyday

things? This stage concludes with an invitation for students to enjoy the moments when they arrive and leave



home, something they do every day on the way to school, to observe the place with new eyes. Everyone should seek to perceive other aesthetic patterns, based on the experience and affect that a building, or a work of art (inside or outside museums), causes.

5 In the next class, students read Gilles Deleuze's "Diferença e repetição". After reading, the question is asked: how can you see what you have never seen? How can you become aware of where you live? At the end of this meet, the teacher asks the students to take an observational and technical study tour in the region where they live. They should identify what they think is beautiful in this place and produce photos, illustrations or paintings. They are asked to make at least three photos or artwork. Students can portray landscapes, public spaces, objects, buildings,

monuments, works of art, among other references. It is recommended that they focus on aesthetic makeup, trying to make beautiful records of what they value in their area. Photographs, drawings or paintings can convey impressions that highlight the particular aspects of the territory in which they are inserted and more universal references about the city as a whole.

6 The last part of the activity is devoted to the presentation of the images produced by the students. They should display them justifying their choices and providing information about the investigation. It is recommended that the kids make written records. They are not required to write about their photos, paintings or drawings, but they need to bring reflections in an organized manner at the time of presentation to the class,

articulating the theoretical knowledge of previous meets. Finally, students should write about whether and how their relationship with their place of where they live has changed. Everyone reads their reflections and comments.



EVALUATION

A note is attributed to the work of image production by the kids. The student’s creative process and their ability to exhibit reflections on what he photographed, drew or painted are taken into account.

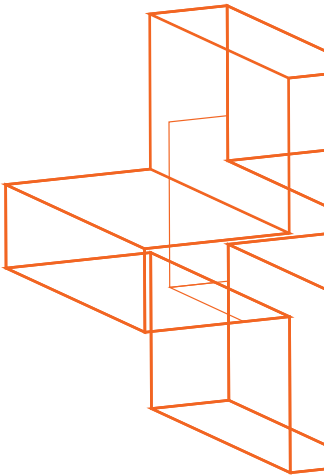


RESULTS

The practice made students become more interested in their city. They were encouraged to talk about their origins, the places they once lived, where they live, the differences between these spaces and others they travel through. It is an experience that transforms their relationship with the regions in which they live, developing the sense of belonging to these places. As the kids articulate empirical observation and philosophical reflections, they begin to position themselves differently, to review their references of beauty and value.

LEARN MORE

- PESSOA, Fernando. [Nota explicativa e notas de João Gaspar Simões e Luiz de Montalvor.] **Poemas de Alberto Caeiro**. Lisboa: Ática, 1946 [10ª ed. 1993].
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THE STORIES THAT PHOTOGRAPHY TELLS

KEYWORDS

#DAILY_LIFE
#NARRATIVES
#VIDEO

AUTHOR
WINSTON SACRAMENTO

WHAT IS IT?

In this activity, students photograph everyday situations inside and outside the school. The random combination of these images inspires, in a second moment, the creation of original stories that will be transformed by the kids themselves into short videos.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



SCREENWRITING

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



DIGITAL
CULTURE



CULTURAL
REPERTORY

WHY DO IT?

Audiovisual narratives are instances of mediation in virtually every dimension of contemporary existence. Thus, it is not enough for us to just consume them, it is important that the school embraces experiences that mobilize learning and expression through this language. This practice goes in this direction, making room for students to create arguments and scripts of fiction.



RESOURCES

- A4 paper, printed and/or digital image search material, camera, internet computer, image editing software, multimedia projector. Participation of a pedagogy and/or teaching course student as an intern is desirable.



CLASS TIME

- This activity was developed in eight classes, 50 minutes each.

HOW TO DO IT?

Attention: **imagination is key to making the script.**

1 The activity begins with the presentation to students of a series of images. With each photograph displayed, the teacher asks questions and provides information for the kids to reflect on the plans and angles at which the photos were taken.

2 The class is organized in groups of three to five members. Each team should create their own images by exploring all types of angles and planes possible. They should portray people, objects and situations present in or out of school. Groups can also search images on the internet to compose their albums. The important thing is that this collection shows

different everyday situations. Students take five distinct types of photos exemplifying each possibility of angulation or planning. Since there are usually between three and four types of angles, and between four and five types of planes for reference, each group eventually produces a photo album with 15 to 20 distinct images.

3 After each team completes their photo album, students attend a class in which the structuring elements in organizing script arguments and audiovisual narratives are presented. At this meeting, they learn that every narrative needs to answer the following questions:

- What? Fact occurred

- Who? Characters
- When? Moment of the fact
- Where? Location of the fact
- How? How it happened
- Why? What motivated the fact





4 Then students create a visual story using the album photos. They must order the images to elaborate a creative and original narrative. Since they were not recorded with this intention, this is a time that will require groups to use all their imagination. The kids will have to compose characters, delineate their emotions and articulate ideas to create a logical thread. After the photos are in the desired sequence, groups should write sentences that briefly explain the main action in each of the images.

5 The next step is to turn the story into a two-minute video script. For this, students learn how to produce a script according to technical standards and theoretical foundations for the construction of arguments of audiovisual works.

6 After building the scripts, students are gathered in a circle for a creation sharing session. Each script is read aloud and everyone can make suggestions, thus improving the quality of each proposal.

7 The last step of the activity is to turn the scripts into videos. In these productions, students should use the photos that gave rise to the story. In addition to the images, the kids can insert audios, songs, dialogues, subtitles and other effects, always according to what was designed in the script. Movie Maker software is used for editing.

8 Videos are shown in a special classroom session. In this meet, the teacher also promotes a debate so that the class seeks to identify the learning of the course and evaluate the final result of the productions.



EVALUATION

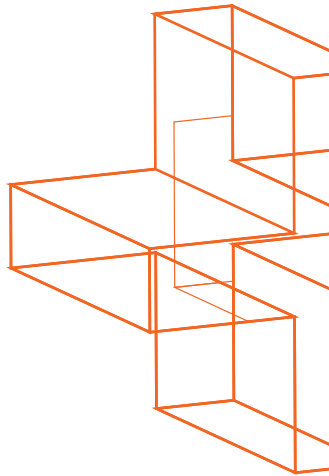
The students' audiovisual production is evaluated by observing the creativity of the arguments, the proper use of the narrative's structuring elements and the planning and angulation techniques expressed in the images.

RESULTS

The experience of composing photo narratives has made students more sensitive and able to manipulate audiovisual resources. They have learned to recognize that still and moving images are capable of mobilizing diverse meanings that, if used accurately, can structure a story. All of these language manipulation skills made it possible for students to become more critical of audiovisual productions in general.

LEARN MORE

- CASTELLS, Manuel. **A Sociedade em Rede**. S. Paulo: Paz e Terra, 2000.
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- SEPAC (Serviço à Pastoral de Comunicação). Vídeo: **da emoção à razão**. São Paulo: Paulinas, 2007.
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THE FACE OF THE SCHOOL

KEYWORDS

#PHOTOGRAPHY
#COMMUNITY
#EMPATHY

AUTHOR
ELIZABETH CALDAS

WHAT IS IT?

In this activity, students photograph the people who are part of the school environment. It is an exercise of knowledge of those who make up the community, so that the kids understand how it is constituted. In the construction of this narrative, workers are recognized from areas such as cleaning, kitchen, concierge... From this work, the questions arise: who are they? What are their working relationships? Under what conditions do they exercise their craft? At the end of the practice, there is a large exhibition with the images produced.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



SCREENWRITING

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



EMPATHY AND
COOPERATION



WORK AND LIFE
PROJECT



CULTURAL
REPERTORY

WHY DO IT?

The school environment is a reference for most kids, as this is where they spend most of their days. Identifying with the school, understanding its operation and knowing those who are part of it are crucial for the formation of a teenager. Proposing a narrative that mobilizes the student's perception of the other, without the other being a colleague of the same age necessarily, generates empathy. This practice brings reflections on the various positions and working relationships, in addition to recognizing the value of each inserted in the collective.



RESOURCES

- Camera and/or camera phone;
- Online photo editor.



CLASS TIME

- This activity was developed in 24 classes, 50 minutes each.

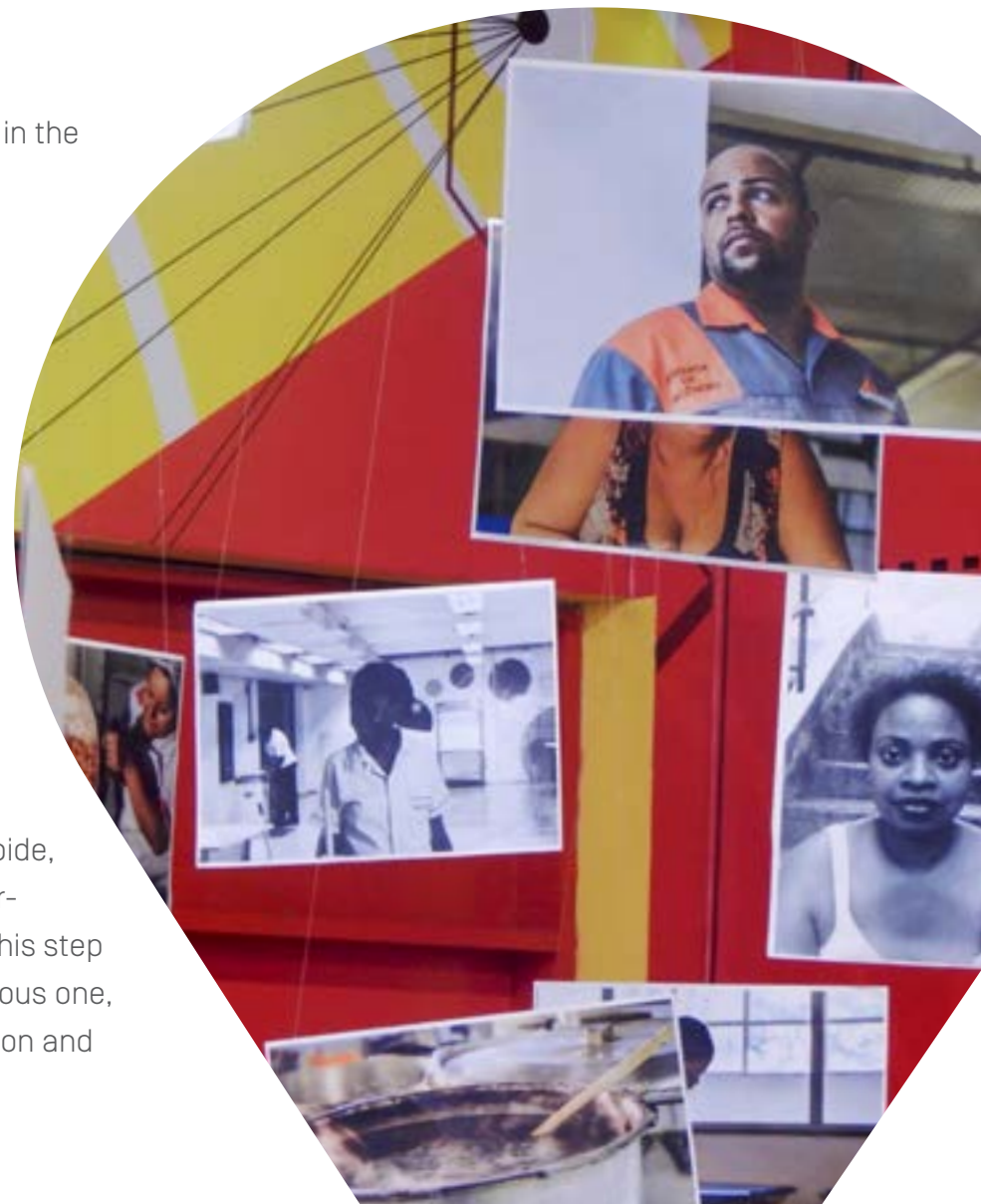
HOW TO DO IT?

Attention: **the works of cinematographer eduardo coutinho cineasta and photographer sebastião salgado are good references.**

1 The teacher presents to the students, in the first two classes, a proposal of narrative construction, based on photographs, about the people who are part of the school. The class should reflect on who the individuals inserted in this community are and who create this space. It is very important that this stage be a moment for discussion on topics related to labor relations and research, for a good understanding of the proposal. It is worth proposing an integration geography, sociology and philosophy teachers for a debate on the subject of the individual, their place in the world, their identity,

work relations and their position in the community and society.

2 Without interrupting the discussion proposed in the previous step, the teacher begins a reflection on photographing and interviewing. It is important that they present students with great references from those who legitimize the other in his work, such as cinematographer Eduardo Coutinho and photographers Sebastião Salgado, Graciela Iturbide, Platon, Vivian Maier, Henri Cartier-Bresson and Chichico Alkmim. This step is probably longer than the previous one, because of the delicate perception and



care that is required with what is being photographed. Those who photograph should be concerned with posture, approach, respect, sincerity and generosity in this exchange.



3 The project scope, division of labor and responsibilities are then defined. You have to choose a smaller group within the whole school community to be photographed, and you need to know and recognize these people within the whole. In the activity held at José Leite Lopes State High School/NAVE Rio, the students chose to portray the cleaning and kitchen staff and the brigade members, based on the concept of “invisible work”. In other years and times, new categories may emerge, such as teachers, students, parents, administration, and management.

4 Students are divided into groups for approaching, initial conversation and taking

photographs with as many staff members as possible, which can be portrayed by doing their jobs or not. What will define the characteristics of each photo will be the availability and desire of each photographed person during their work schedule. At the end of this step, a first batch of images will be analyzed in the classroom.

5 The photos are collectively evaluated by the students. At this meet, they talk about the approach, tell a short story about each one involved, their willingness, insecurities and what it was like to photograph them. A new photo shoot may be required depending on the outcome of the first. In the practice developed at José Leite Lopes State High School/NAVE Rio, a second round was done, thinking about the research of each person photographed for the narrative that would be created.

6 The best photos are chosen and finalized in the image editor. After learning a little more about each of the people involved, students write about the project as a whole and their reflections on those who were portrayed.

7 The photos are printed, along with explanatory text, thus setting up a large exhibition. At the José Leite Lopes State High School/NAVE Rio, the show was called “NAVE Portraits - Invisible Work” and was launched within the school’s main event of the year, “Open Doors at NAVE”.



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EVALUATION

At all stages of the activity, students are evaluated in the various roles they perform, whether in research, pre-production, logistics, production, completion and post-production. The notes are built from the completion of the specific activities of each stage, the way they work in groups and follow the process in its entirety.

RESULTS

Before “NAVE Portraits” was done, contact between students and college staff was minimal. The chosen subject served as a bridge for a relationship between them to be accepted and established. The purpose of the project, which was achieved, was to show professionals who are part of the student’s daily life and are often not adequately valued or their jobs are considered as “inferior”.

LEARN MORE



Eduardo Coutinho
[<https://bit.ly/36Zkqzw>]



Chichico Alkmim
[<http://bit.ly/2r5iWVd>]



Vivian Maier
[<http://bit.ly/2PLvJ9H>]



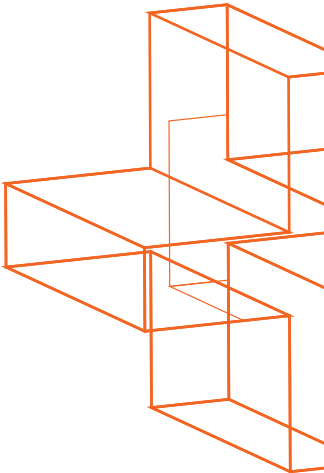
Platon
[<http://bit.ly/2CaKMBN>]



Graciela Iturbide
[<http://bit.ly/2rcMvEy>]



Sebastião Salgado
[<http://bit.ly/2PK27cQ>]



COSMOGONIES

KEYWORDS

#MYTHOLOGY
#COSMOS
#VIDEO

AUTHOR
PATRÍCIA LIMA

WHAT IS IT?

In this activity, students produce group videos about the myths of origin of the cosmos (universe) of ancient societies. Teams can create these pieces in stop motion, shadow play or staging. The culmination of the practice takes place in a movie club, with debates about the productions.

SUBJECT AREA



APPLIED HUMANITIES
AND SOCIAL SCIENCES

CURRICULAR
COMPONENTS



PHILOSOPHY



HISTORY

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



KNOWLEDGE



CULTURAL
REPERTORY

WHY DO IT?

For the student to develop empathy for the culture of another people, even from another historical period, one must immerse oneself in it. Encouraging the kids to look at the world through the eyes of others through other interpretations is a way of making them commit to a fairer society and a better world. This activity also develops the autonomy and leadership of students in the course of work production.



RESOURCES

- Computer or other device with internet access;
- Paper, pencil, glue, scissors, modeling clay, and other stationery for the production of videos;
- Projector;
- Video-specific software such as Movie Maker.



CLASS TIME

- This activity was developed in ten classes, 50 minutes each.

HOW TO DO IT?

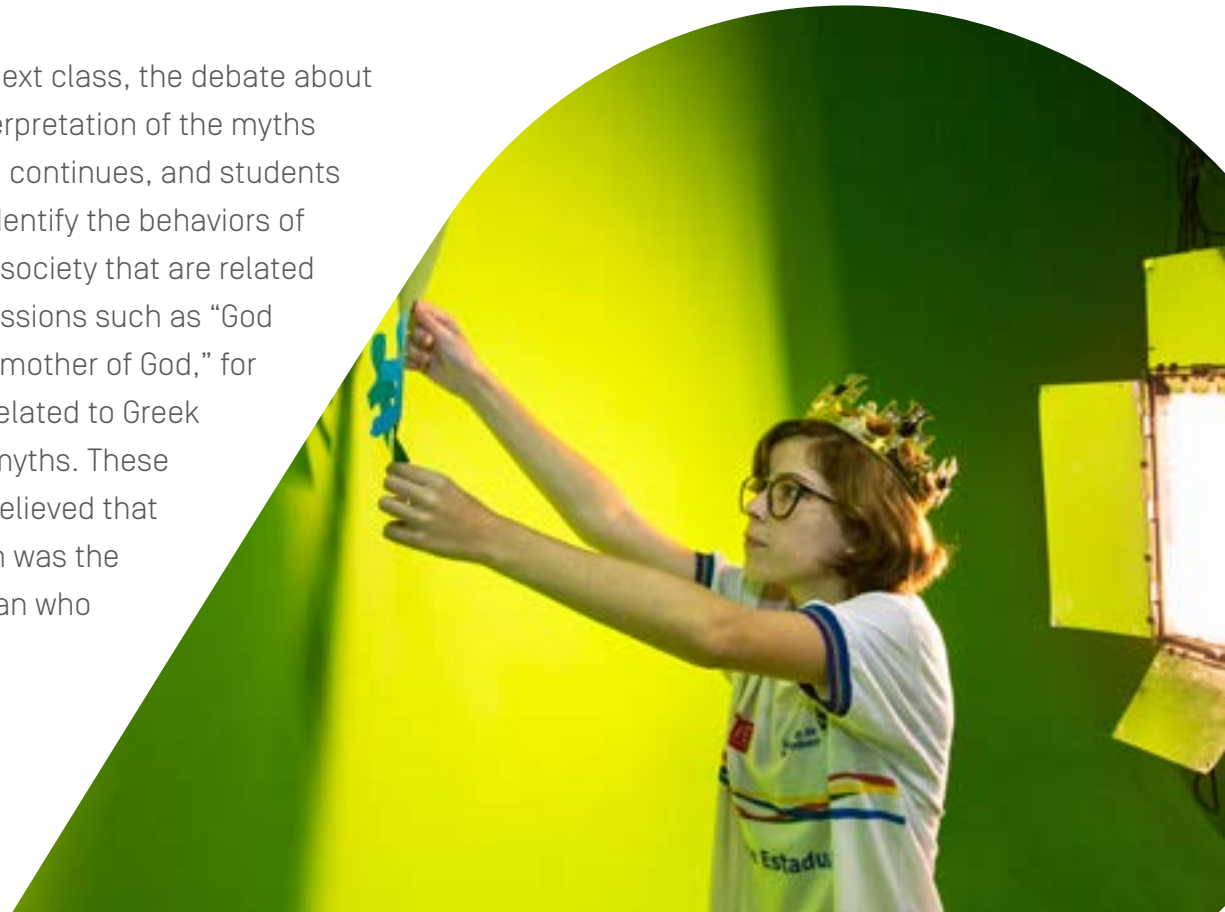
Attention: **what is the best way to tell a story? Keep this in mind.**

1 The teacher starts the activity defining the themes that can be worked on in the videos by the teams. It will be up to each group to study and make a production about the cosmogony [the myth of origin of the universe] of ancient peoples: Sumerians, Egyptians, Phoenicians, Chinese, Hindus, Persians, Greeks, Celts and Teutonics. The Greeks, for example, believed that everything originated in chaos, and from it arose heaven, earth, darkness and light. For the Egyptians, from the thick dark water came life, the cosmos. All primitive societies have a myth of origin, and among them there are several points in common, for humanity needs to understand where we came from

and where we are going. The debate over the different views about the origin of the universe should permeate the entire first day of this activity.

2 In the next class, the debate about the interpretation of the myths studied continues, and students should try to identify the behaviors of contemporary society that are related to them. Expressions such as “God of heaven” or “mother of God,” for example, are related to Greek and Egyptian myths. These peoples also believed that a virgin woman was the mother of a man who became God.

3 Separated into teams of five members, students define which myth each group will work on, which





can be done by a draw or by their choice. From then on, they research how to set up a shadow theater and how to produce a stop motion video.

Thus, they define whether they will make the video using one of these techniques or by acting. After choosing how, they must create the script and divide the tasks between the participants: who plays each role, who shoots and who is responsible for editing. Videos should be short, lasting two to three minutes.

4 The next class time should be used for the production of sets, costumes, cutouts and whatever else is needed for the shoot.

5 Time to rehearse and adjust the last details for the recording. Then students must film and edit the images.

6 At the end, the teacher creates a movie club for the presentation of all videos. In these sessions, each team explains their interpretation of their cosmogony to the class, and they all analyze the work together.





EVALUATION

Two forms of evaluation can be used. The first is the observation of each student’s participation and motivation. The second is the analysis of the presented material, taking into consideration the comprehension of the studied content and its application in the final product, the language adaptation and the comprehension of the importance of the mythical vision for the recognition of the self.

RESULTS

Students understood the concept of myth and were sensitized about the different views of ancient societies. It was also clear that their knowledge and reflections took place in a contextualized way in relation to what we think today, which is fundamental to the meaning of the activity. Performing a practice like this on video is also a good way to get them thinking about how they tell their stories and how they can make themselves better understood by the listener.

LEARN MORE



Phoenician cosmogony
[<http://bit.ly/2Ngyqi0>]



Egyptian cosmogony
[<http://bit.ly/2CdVyXU>]



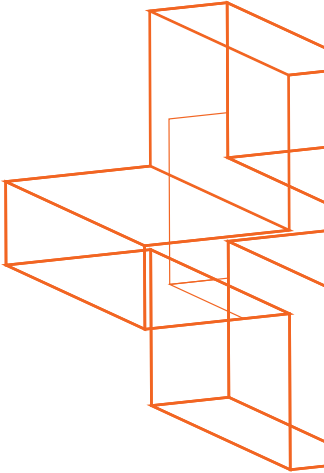
Greek cosmogony
[<http://bit.ly/2PNp0Mq>]



Chinese cosmogony
[<http://bit.ly/2JRYYnE>]



Hindu cosmogony
[<http://bit.ly/2JLCaFW>]



PHYSICS IN COMICS

KEYWORDS


#CREATIVITY
#STORYTELLING
#NARRATIVE

AUTHOR
HUGO MAGNATA

WHAT IS IT?


In this activity, students turn physics concepts into comic books. They can choose which topics to address and whether to do their work individually or in groups. They can even choose content that they have not studied, developing their own research to understand them and thus create their scripts and characters.

SUBJECT AREA




NATURAL SCIENCES
AND THEIR
TECHONOLOGIES

CURRICULUM
COMPONENT




PHYSICS

TARGET AUDIENCE




HIGH SCHOOL




ADULT
LEARNING


SKILLS



ARGUMENTATION



COMMUNICATION



CULTURAL
REPERTORY

WHY DO IT?

Some physics content may be difficult for students to understand, especially if they are not contextualized or brought into their reality. Through storytelling, this or any other subject can be learned in a lighter and more fun way.



RESOURCES

- Stationery such as paper, colored pencils, sharpened no. 2, 4, 6, and 8 pencils, and a physics textbook.



CLASS TIME

- This activity was developed in eight classes, 50 minutes each.

HOW TO DO IT?

Attention: **shadows and colors in relation to the protagonist's feelings.**

1 The teacher starts the activity by asking students to split into groups and think of story protagonists that revolve around the content studied in physics. In the practice developed at Cícero Dias Technical High School/NAVE Recife, for example, a team came up with the idea of a character whose life is always constant and who suddenly falls in love with a woman. With this protagonist, they developed a story about Newton's first Law, which states that a resting body tends to remain at rest, and a moving body tends to remain in motion.

2 Then it is time to produce the plot. Students should show how the comic will be developed and how the content of physics will be approached.

3 Then, a color and shadow analysis is done on comics in general. The chosen tones are directly related to the feelings the main character expresses, just as the shadows show the mood of the story. In Batman comics, for example, shadows are linked to mystery. Thus,





students should also think about the colors and shadows they will use in their productions.

4 With the results of the previous steps, the teacher should return to the class, reflecting with the students whether the Physics content is being addressed correctly, how this issue can be improved, if the story makes sense to the general public, among others. The debate can take place with the whole class, so that the other kids can also give their opinions on their colleagues' ideas.

5 The time has come to produce the comic. Students should review everything discussed and put the proposed ideas into the work.

6 Creations are presented to the class, which can be done using a projector. It is interesting that everyone shares what they think about the productions: if the story is interesting, if the character is attractive and, finally, if they understood the concept of physics addressed.



EVALUATION

The evaluation is about the final product, taking into account originality, creativity and its relationship with the studied contents. Student participation throughout the process is also important for the application of the final grade.

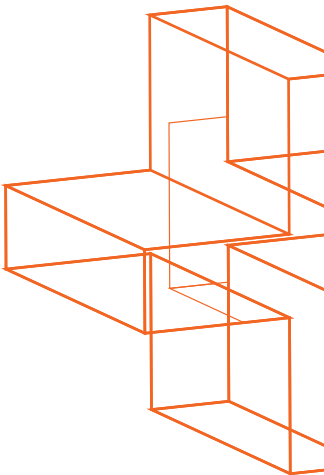
RESULTS

The activity was interesting for students early on, when almost everyone showed a strong desire to get their hands dirty and produce. The content served not only for the groups, but for the whole class, from the explanations that everyone heard throughout the process and the presentations. Learning started to make more sense to the kids, who, at the end of the activity, showed to have understood the concepts worked on.



LEARN MORE

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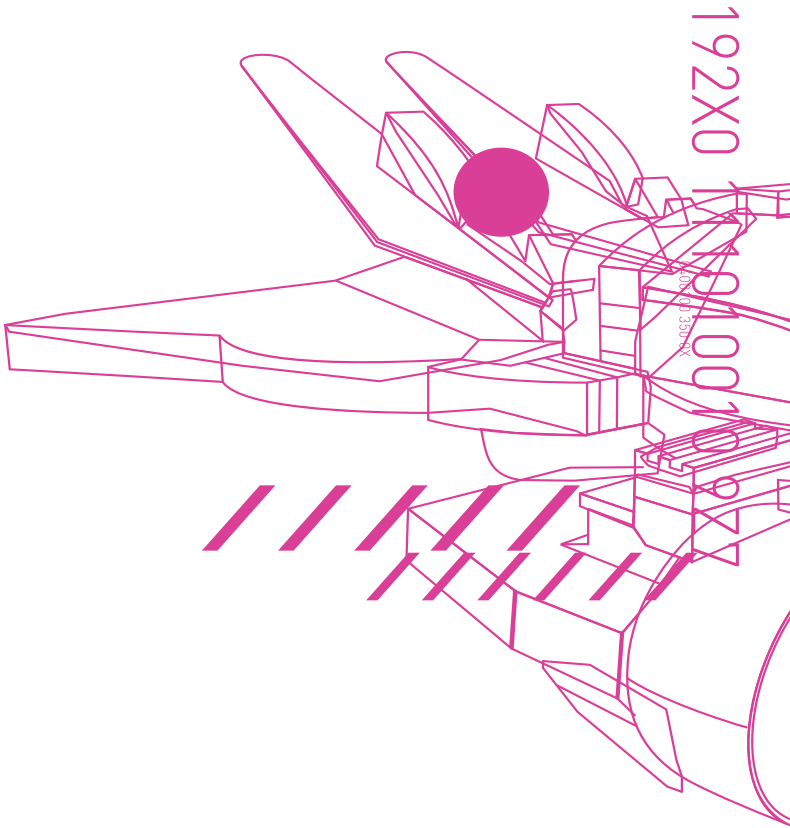


CHAPTER 5

CLASS IN PLAY

CLASS IN PLAY

The classroom can be, above all, a fun place. And games really help to make that happen. In this chapter, teachers show how this tool can be used for students to relate course content to their everyday life or even to evaluate it differently from the conventional one. In one of the practices, it is not the teachers, but the kids themselves who create the games, based on literature contents. They seek inspiration from games that already exist and need to have ideas not only for structure and rules, but also for developing boards and other components, using only the material that is available.



HISTORY BOARD

KEYWORDS

#GAMES
#NARRATIVES
#HISTORICAL_EVENTS

AUTHORS

CARLOS TELES
DANIEL MARTINS

WHAT IS IT?

In this activity, students research, identify and experiment with board and card games that relate to the contents of the subject of History. Thus, it arouses the curiosity of the kids regarding the themes presented.

SUBJECT AREA



APPLIED
HUMANITIES AND
SOCIAL SCIENCES

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

CURRICULUM
COMPONENT



HISTORY

TECHNICAL COURSE



MULTIMEDIA

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



ARGUMENTATION



KNOWLEDGE



EMPATHY AND
COOPERATION

WHY DO IT?

Articulating theory and practice is fundamental, and with games this is possible. The strategy creates motivation and engagement in students without separating learning from play. They have the opportunity to study the narratives of games and at the same time apply the contents studied in history classes.



RESOURCES

- Games marketed [at least one of each]. In the experience described below, research was done on games that bring back historical narratives of Antiquity and the Middle Ages, such as: “Carcassonne”; “Catan”; “7 Wonders”; “Settlers of Catan”



CLASS TIME

- This activity was developed in seven classes, 50 minutes each

HOW TO DO IT?

Attention: The games played in the activity performed at José Leite Lopes State High School/NAVE Rio deal with issues of Ancient History, but any educator can adapt the practice by researching those that address curricular content of interest. The experience was also integrated into the Technical Education Games Culture subject.



A questionnaire can be applied to show subject contents in games.

1 At the beginning of the quarter, students attend Ancient History classes. Then everyone is introduced to the team-defined games and divided into teams. Teams must try all games. The history teacher may reserve some or only part of them for students to play.

2 During the activities, students are instructed to establish relationships between what they are learning and the themes of the games. Teachers may ask you to make notes of your reflections. Relationships are easily established, but it is advisable to offer the class a questionnaire

to elicit further reflection. Here are a few examples of what you can ask:

- “7 Wonders”: Within the military, civil, commercial, scientific structures and guilds used in the game, research and show concrete examples in the Babylonian, Egyptian and Greek civilizations.
- “Citadels”: List the characters who inhabit the medieval village in the state social chain that was previously presented in class.

3 Students’ reflections during play and their gaming experience are presented in a seminar. Each group should prepare an oral presentation with their analysis. The teacher may also request



a written text. At a later time in the school year, students, organized again into groups, can select content studied in the History subject and create their own games. This activity has already been put into practice José Leite Lopes State High School/NAVE Rio and is called History Board II.

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EVALUATION

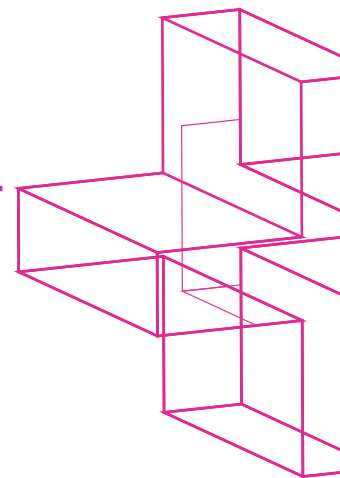
Teachers can evaluate student presentation during the seminar, but they can also grade activities throughout the semester. In the History subject, the development of all stages within the agreed timeframe, the quality of each student's participation and reflections and oral presentation are considered. Half of the points go to the development of the work stages and the other half to the seminar.

RESULTS

With each game play, participants developed a historical awareness and began to more easily establish relationships between the subject content and facts of their daily life. During class, they began to cite board games, card games or games that had it as their background the theme. The experience also had an impact on the Game Culture subject as it mobilized students to create non-class tournaments and meetings, providing a more spontaneous learning of gameplay techniques.

LEARN MORE

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GAMMIFICATION

KEYWORDS

#GRAMMAR
#ENGLISH
#GAMES

AUTHOR
KLENIE SYNARA

WHAT IS IT?

This activity has a quiz with multiple choice questions about grammar formulated from contents studied in the subject. They are answered in groups according to the time stipulated by the educator. In the game, students must raise signs indicating the letters corresponding to the answers.

SUBJECT AREA



LANGUAGES AND THEIR
TECHNOLOGIES

CURRICULUM
COMPONENT



FOREIGN LANGUAGE

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



ARGUMENTATION



COMMUNICATION



EMPATHY AND
COOPERATION

WHY DO IT?

Grammification helps to create more interesting and dynamic classes, which makes students want to participate and learn from it. The game even saves on paper that is usually used with individual exercises.



RESOURCES

- Projector
- Stopwatch
- Platelets made of cardboards of different colors (red with the letter A; green with the letter B; yellow with the letter C; blue with the letter D; orange with the letter E);
- White board;
- Whiteboard brush.



CLASS TIME

- This activity was developed in one 50-minute class.

HOW TO DO IT?

Attention: The teacher must elaborate 20 questions related to the course content, each with five answer alternatives. They must be placed in a PowerPoint presentation to be designed in class. One of the topics addressed in the 3rd year of the Cícero Dias Technical High School/NAVE Recife, for example, was the connective, or linkers, words or expressions that connect ideas in a text.

When a group makes a mistake, the teacher may take advantage of this to clear up any doubts about the subject.

1 Students form teams of five participants, who receive the letter signs of the alternatives. The teacher explains the rules of the game, which are as follows:

- Each question must be answered within 30 seconds. The team should talk and raise the sign with the answer they think is correct.
- The answer should not be shared with other groups.
- The sign can only be lifted with the teacher's notice, and everyone should do so at the same time.
- Points are counted on the whiteboard for each question that teams get right.



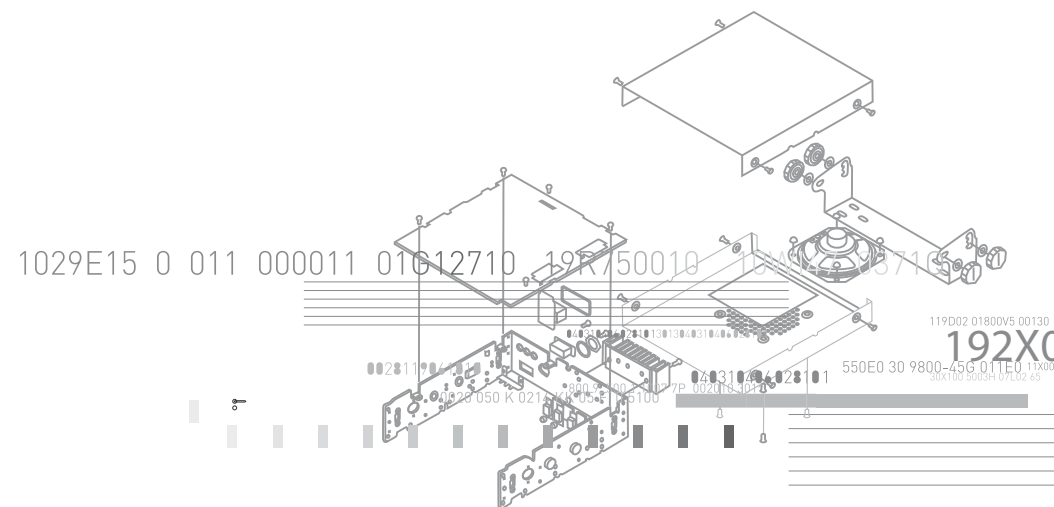
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2 The questions are exposed one at a time. The correction is made right after they play their turn, giving points to the teams that is correct and clearing up any doubts of the groups that made mistakes, according to the rules of the content studied. The team with the most absolute points wins, and there cannot be a tie.



EVALUATION

Activity evaluation can be done in two ways: groups can earn points for each question answered and, in addition to evaluating the kid in the quantitative process, one can also make a procedural evaluation for activity participation, team collaboration, alignment, leadership, monitoring, knowledge, among others.

RESULTS

As a result of the practice, there was greater interest in the students' classes, greater content fixation, higher grades and more fun classes. The idea of healthy competition between teams, group work, knowledge exchange and the constant evaluation of how grammatical content would make a huge difference at the end of the year.

LEARN MORE



Grammar - Linkers - Connectors
[<http://bit.ly/33k4zuA>]



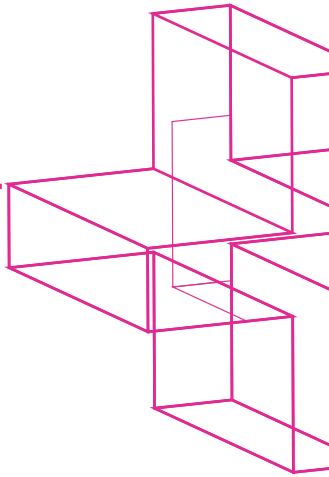
Connectives - Connectors
[<http://bit.ly/2NBu0pu>]



Conjunctions
[<http://bit.ly/2oQnEFN>]



English conjunctions
[<http://bit.ly/36Bgcz8>]



TEACHING LITERATURE WITH GAMES

KEYWORDS

#GAME
#CREATIVITY
#RECYCLING

AUTHOR
MÔNICA D'ALMENERY

WHAT IS IT?

The practice invites students to create teaching games on literature. The productions are inspired by traditional, popular and digital analog games and are inexpensive and can be made from recycled materials.

SUBJECT AREA



LANGUAGES AND THEIR TECHNOLOGIES

CURRICULUM COMPONENT



PORTUGUESE LANGUAGE

TARGET AUDIENCE



HIGH SCHOOL

SKILLS



COMMUNICATION



SCIENTIFIC AND CREATIVE THINKING



CULTURAL REPERTORY

WHY DO IT?

In the traditional teaching of literature, contents are generally presented in a decontextualized way and viewed by students only as texts of far-fetched language. But you can think of different ways to teach kids to have another classroom experience. One is through creating games. Learning literary styles through the elaboration of low complexity and low cost analog games makes the student take an active role in the construction of this knowledge.



RESOURCES

- Cardboard
- Paperboard
- Tape
- Stick figures and dice
- Glue
- Cardboard boxes
- Computer with internet access



CLASS TIME

- This activity was developed in 12 classes, 50 minutes each.

HOW TO DO IT?

Attention: Students must choose content from a subject studied throughout the quarter or year, which can be a specific literary style, texts and poetry or the bibliography of a particular author. This will be the theme for the development of a pedagogical game.

Proposing creative use of available materials is part of the activity.

1 The class is organized into groups of approximately five members. They choose how they will be divided, and the number of components may vary slightly, more or less. During a class, the teacher presents the activity proposal to the students and organizes the work process.

2 Then, for three classes, groups should do research on traditional games on the market. The teacher may take some references to help support this work. In general, very popular and accessible games are highlighted, such as ludo, RPG, Monopoly, memory games, word searches, among others. The research is done on the internet, and students and teachers can also bring in games from home.

3 Each team chooses a game from the set they have researched to serve as a reference in creating their original game. At this stage, the kids have to associate the rules with content from the Literary subject. They have yet

to create a pedagogical proposal. That is, one of the objectives of the game should be to teach Literature content. The creation process lasts approximately four classes.





4 The teacher should closely monitor the work of each group, mainly evaluating the application of the subject content, observing the correctness of the information, suggesting texts and reference materials for research and assisting in the search for materials for making games. These materials are usually cheap or recycled. The kids can also make use of what the school already has and can offer. Limited resources often times stimulates the students, who have to be creative with how the materials are used.

5 The process ends with a presentation by the groups of each game created. They make a presentation of the proposal, with presentation of references, rules and literary themes covered. Afterwards, rounds

of game experimentation are organized. Other students and school staff may be called upon to participate as players. It is even possible to organize championships between the classes.



O CÉU DE RECIFE
É O MAIS ALTO DO MUNDO.
CÍCERO DIAS

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EVALUATION

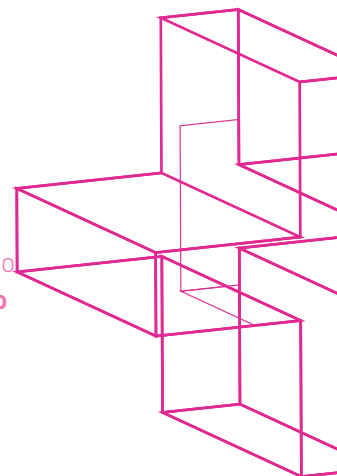
In general, a score is given to the group for creating the game, evaluating the creativity, adaptation quality (especially the pedagogical nature) and the correctness of the application of the Literature content.

RESULTS

Games, as well as injunctive [rule-making] texts, gave students the ability to learn to create a sequence in their knowledge-building process. Concentration and organization greatly improved, as the pedagogical contents moved from their subjective state to the concrete, facilitating their comprehension and assimilation. Classes became fun, grades increased and evasion decreased. This type of project even favors students who have disorders such as ADHD and dyslexia. Following rules to reach task completion is a challenge for students with these difficulties.

LEARN MORE

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GEOGRAPHY VOLLEYBALL

KEYWORDS

#GAMES
#TEAM
#ORAL_EVALUATION

AUTHOR
MARTA FRANCESCUTTI

WHAT IS IT?

In this activity, the classroom is organized as a volleyball court. The class is divided into two teams, which must be positioned on opposite sides. The questions the teacher asks work like the game ball, which goes across the court when student's get correct answers. The game is, in fact, a creative oral evaluation of the content studied over the quarter.

SUBJECT AREA



APPLIED HUMANITIES
AND SOCIAL SCIENCES

CURRICULUM
COMPONENT



GEOGRAPHY

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



ARGUMENTATION



KNOWLEDGE



EMPATHY AND
COOPERATION

WHY DO IT?

The practice offers an alternative to written test evaluation. When the teacher turns the test into a game, the process engages and becomes pleasurable. In the proposed game, it is observed, for example, the attention span of the kids, their understanding of the questions, the respect for the rules and their colleagues, and the oral expression of each one.



RESOURCES

- Classroom in which it is possible to organize a group on each side;
- Whiteboard or other media to record student points and names;
- Marker for the whiteboard.



CLASS TIME

- This activity was developed in one 50-minute class.



HOW TO DO IT?

Attention: The teacher should organize a list of objective questions about the content of the course to be asked during the game. In a class of 40 students, it is recommended that 40 questions be planned. They are classified between easy and difficult. Other questions may be asked during the game, but it is important to have a premade set.

The class may propose adjustments to the rules of the game.

1 The class is divided into two teams with the same number of members. A line is drawn on the room's whiteboard, dividing it in half. In one part, notes will be made about the plays of a team; on the other, the

records of the opposite group. The teacher presents the rules (read below) and opens a space for everyone to clarify doubts. It is worth giving the class the opportunity to propose adjustments to the rules by justifying them. As the game is rated by grade, it is important to make the evaluation criteria clear.

Rules:

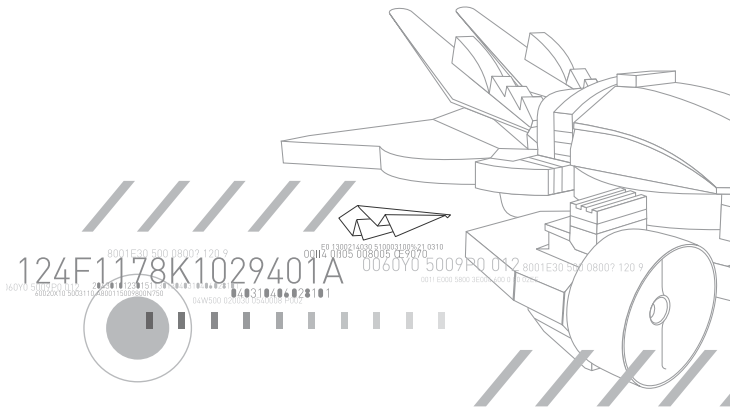
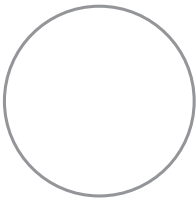
- The teacher is responsible for alternately asking each team a question.
- When a question is asked to one of the teams, all the members who know the answer raise their hands, and the teacher decides who will answer. If the chosen person answers the question correctly, the teacher scores a point for the entire

team and notes the name of the student who answered on the board. This participant has already made their move and will no longer be able to respond.

- If the student gets it wrong, the teacher passes the question to the other team. In this case, they also choose from those who raised their hand who will respond. If the chosen new student gets the answer right, the team gets a point and the name of the kid is also noted on the board so that they will no longer be able to answer the next questions. If one of the teams has one less member, in this group, one student may answer twice.
- To ensure that the game is dynamic and that everyone is focused, the teacher only poses the question once, and the answers have to be

given very quickly. If a team is slow to respond, the question is passed to the other team, but the question is not repeated by the teacher.

- Understanding the issue is an evaluation criterion. Thus, students cannot ask the teaching questions seeking to acquire more data to interpret it.
- If both teams make a mistake, neither group scores and the teacher gives the correct answer.
- Students cannot communicate with their peers to suggest answers.



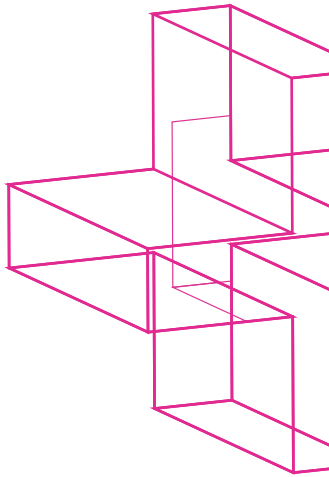
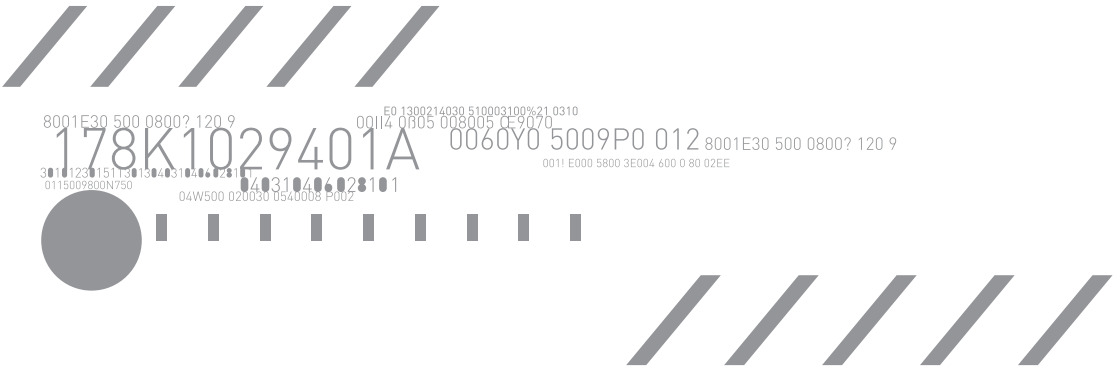


EVALUATION

There are several options for evaluating the activity and the students. One of these is to give the winning group a rematch point, and thus reaching two points - and this score counts towards the final average. Another suggestion, given by the class, is that each correct answer is worth a fraction of the combined whole point.

RESULTS

Students were more engaged with this evaluative practice, even to study beforehand. Everyone wanted to get the questions right and so they prepared well for the day of the game. Question and answer games are also opportunities for them to learn from the answers of a colleague or teacher. Throughout the school year, it was clearly perceived that students were becoming more attentive and focused and also improved their oral expression, as the answers became more objective and clear.



CHEAT TEST

KEYWORDS

#COLLABORATIVE_EVALUATION
#GAMES
#RULES

AUTHORS

ERIKA PÊSSOA
LUIZ FRANCISCO
DANIELLE NATHALIA

WHAT IS IT?

The Cheat Test is a form of collaborative evaluation in which students, in groups, take the same test and can correct each other's answers according to a set of pre-established rules.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



PROGRAMMING

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



KNOWLEDGE



EMPATHY AND
COOPERATION



SCIENTIFIC AND
CREATIVE THINKING

WHY DO IT?

Evaluations can be a stressful time for some students. Often this interferes with the results, because even knowing the content, stress makes them have difficulty with the answers. In a collaborative evaluation, peer support is available, which causes most of the tension to dissipate.



RESOURCES

- One table and one chair per student;
- Colored felt pens;
- Paper to print the evaluation (one per group).



CLASS TIME

- This activity was developed in two classes, 50 minutes each.

HOW TO DO IT?

Attention: **everyone answers the questions and everyone corrects the answers.**

1 The teacher must develop an objective evaluation, with multiple choice questions, each with five alternatives and only one correct one. The number of questions takes into account the number of students in each group. If the teams have ten people, that's ten questions. In addition, each question must have two columns for marking answers: one will be used by the student who answers, the other by the student who makes the correction, as in this example. Finally, each question has a specific color and must be answered by the students with the same color pen. The first sheet of the test presents the evaluation rules, as in

this example. Before the exam begins, the teacher reads the instructions with the students, who can have their questions answered at this time.

2 Students are divided into groups. Each team must occupy a row of desks, that is, the members of the same team must sit behind each other. Each group chooses a leader who will sit in the front desk in a row, receive a black felt-tip pen and answer the first question. The person in the second desk in the row will receive the color pen that corresponds to the second question and

must answer it. The same is true for those who sits in the third desk: this student receives the color pen that represents the third question and must answer it, and so on.





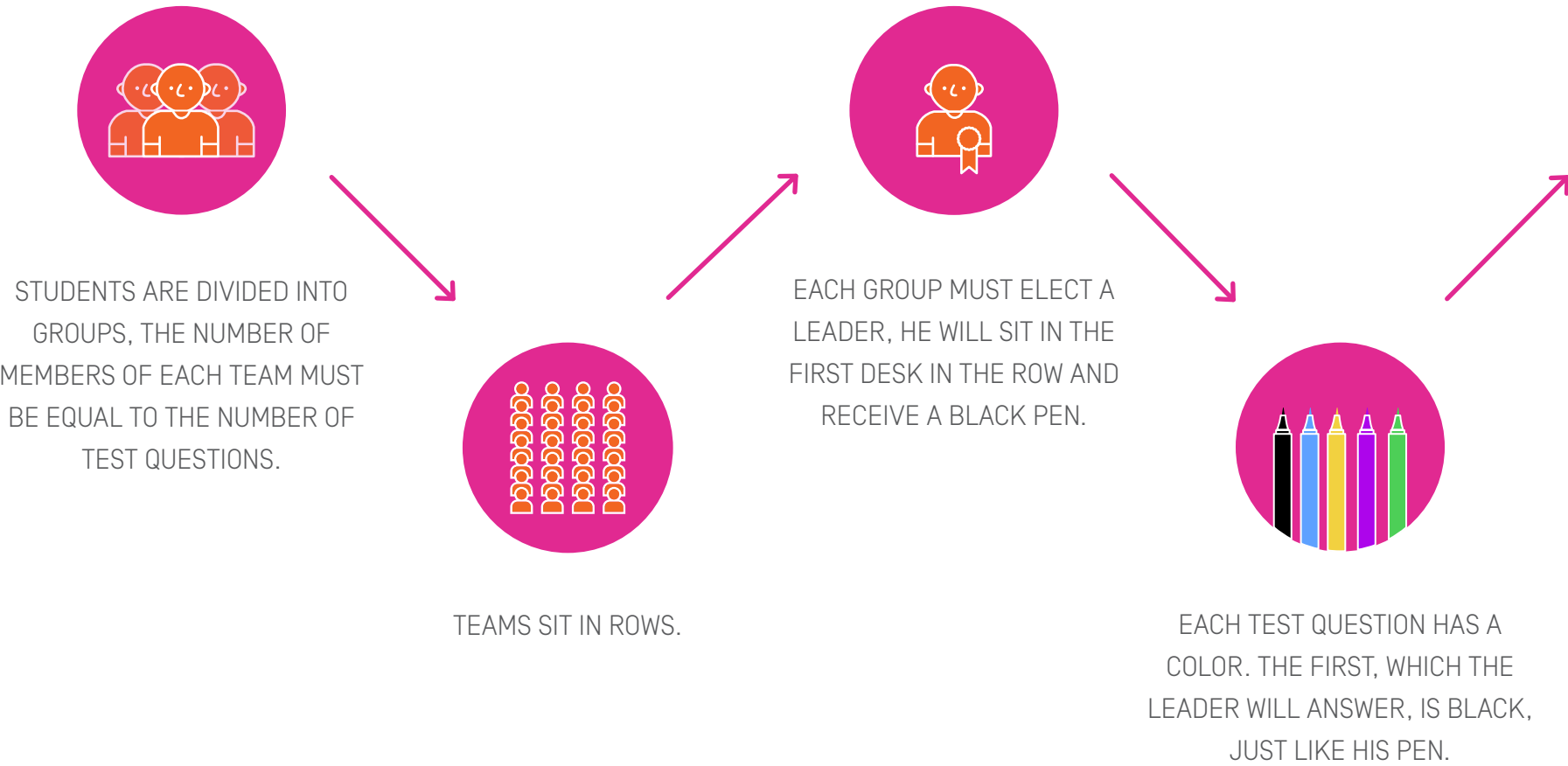
3 Each group makes only one evaluation. Some rules must be observed for correction made by students. Which are:

- Each person must fill in their name at the indicated location. The person at the first table should write, besides their name and date, the class and the line number (which must be previously instructed by the educator).
- Each student will answer the question corresponding to the color of their pen by marking their answer in the first column of the alternatives. This kid has the right to correct the question of the person who preceded them by marking their correction in the second column of the answers. For example, the person who answered question 2 has the right to correct question 1 and so on.

- When the last person in line finishes responding, the evaluation will return to whoever is at the first table, who is the group leader. This, in turn, will be entitled to correct all evaluation questions. Their corrections will be made in the second column, always in black.

4 Then the teacher will make the correction by observing the marking of the two columns: if both contain answers, only the second will be considered. If there are two distinct corrections in the second column, only the black one, which is the leader's, will be considered. According to the score defined for each question, the sum is made to define the score of the whole group.

STEP-BY-STEP OF THE PRACTICE

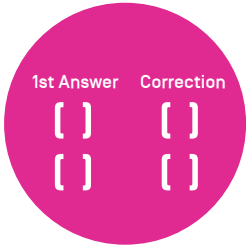




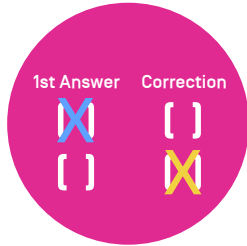
THE COLOR OF EACH STUDENT'S PEN CORRESPONDS TO THE QUESTION THEY WILL ANSWER.



THE LEADER ANSWERS THE FIRST QUESTION OF THE TEST AND PASSES IT TO THE COLLEAGUE WHO IS SITTING BEHIND THEM.



THE TEST IS MULTIPLE CHOICE. BESIDE EACH ALTERNATIVE ARE TWO SPACES: ONE TO WRITE THE RESPONSE AND ONE FOR WRITING THE CORRECTION.



THIS STUDENT ANSWERS THE SECOND QUESTION AND CAN CORRECT THE PREVIOUS QUESTION BY USING THE CORRECTION SPACE NEXT TO IT.



THE PROCESS IS REPEATED UNTIL THE LAST STUDENT, WHO MUST ANSWER THE LAST QUESTION OF THE TEST AND CORRECT THE PENULTIMATE ONE.



EVALUATION GOES BACK TO THE GROUP LEADER. THEY CAN CORRECT ALL THE QUESTIONS.

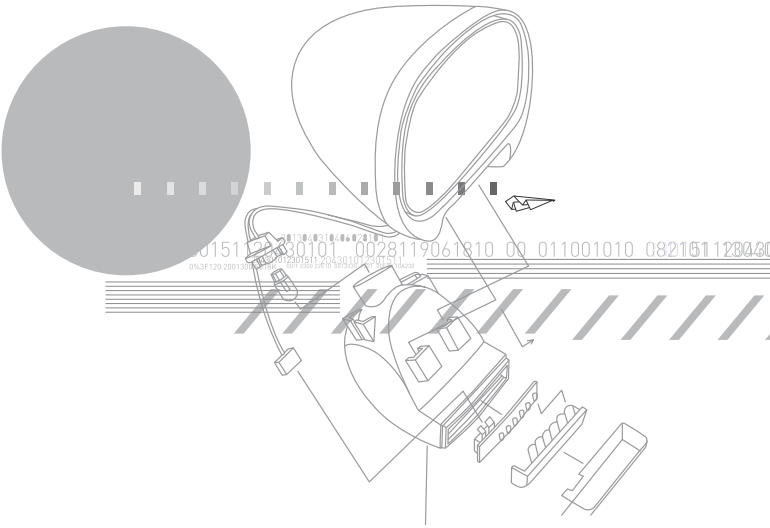


EVALUATION

To observe if the practice achieved its objectives, the following criteria were considered: evaluation scores; oral feedback from students.

RESULTS

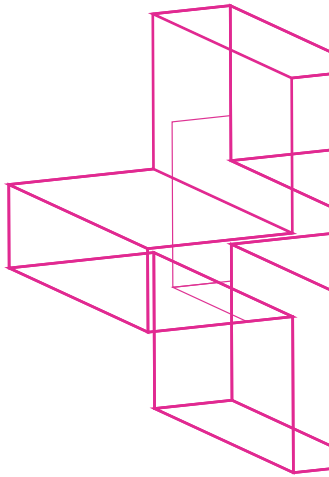
Many students said, still in class after the evaluation, that they liked the format. Others requested that the model be repeated in the next unit. The evaluation was applied without their knowing in advance that they would take the test collaboratively, to minimize the possibility that only one or two would study, and the responsibility would lie solely with the person chosen as the leader. A test of this nature, however, can be made and analyzed from the answers in the first column compared to the number of corrections made by the leader.



LEARN MORE



Who is afraid of tests?
[<http://bit.ly/33je10V>]



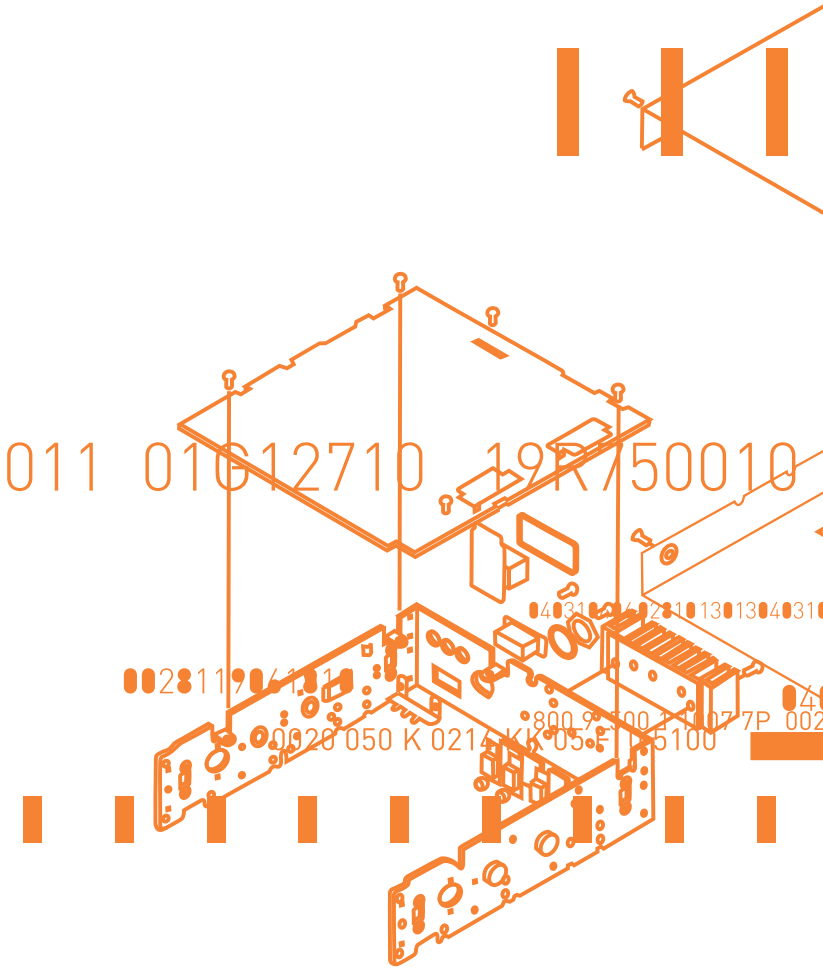
CHAPTER 6

LEADING IS THE WORD



LEADING IS THE WORD

Why not make room for students to create their own tests, set up with the teacher to plan an entire semester of classes, or think of activities that can be done with their peers? The positive results of these experiments are countless, attest the teachers who sign the practices of this chapter. Empathy, cooperation and autonomy are just some of the skills developed. In one of the following activities, the practices developed by the kids for Portuguese language classes were so successful that they were adopted by the teachers themselves with their classes. Students who leave are more engaged because they know they are listened to and respected. And they see, in practice, that the teacher is not the only keeper of knowledge.



PLANNING TOGETHER IS NECESSARY

KEYWORDS

#PLANNING
#COLLABORATION
#CURRICULUM

AUTHOR
SARAH NERY

WHAT IS IT?

This activity aims to involve students in the organization of a training cycle, making room for them to collaborate with the planning of strategies and pedagogical activities of a two-month class, including content that is of interest. It transforms the classroom into a collaborative learning environment.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



SCREENWRITING

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



ARGUMENTATION



WORK AND LIFE
PROJECT



RESPONSIBILITY AND
AUTONOMY

WHY DO IT?

Planejar é preciso, mas nem sempre o planejamento feito pelo educador funciona em sala de aula, seja porque os estudantes não estão dispostos, o conteúdo não interessou ou a estratégia pensada não se realizou de forma satisfatória. Esses e outros fatores podem variar muito dependendo da turma ou do momento do ciclo formativo. Uma forma de minimizar essas questões é abrir o planejamento para a intervenção dos estudantes. Eles se apropriam do processo educativo e percebem que são parte fundamental da construção dos caminhos de sua própria aprendizagem.



RECURSOS

- Quadro, papel, canetas, computador e projetor.



TEMPOS DE AULA

- Esta atividade foi desenvolvida em duas aulas, de 50 minutos cada.

HOW TO DO IT?

Atenção: ninguém melhor do que os estudantes para dizer o que pode ou não funcionar.

1 O professor deve fazer um planejamento prévio do ciclo formativo, avaliando que conteúdos considera prioritários e o que precisa ser abordado de acordo com o currículo obrigatório naquela turma. O docente também deve organizar as estratégias, ou seja, como os conteúdos podem ser abordados e distribuídos aula a aula. Na atividade realizada no Colégio Estadual José Leite Lopes/NAVE Rio, foi utilizada uma planilha para organizar esse planejamento. Para cada aula, foram definidos os seguintes dados: data, conteúdo, estratégias/recursos, skills e habilidades.

2 Dependendo da proposta da disciplina, é possível levar um planejamento em branco e trabalhar com as sugestões dos estudantes, para depois complementar e organizar. Mas é preciso lembrar que, nesse caso, a atividade pode demorar se a turma não tem o hábito de participar desse tipo de processo. É preciso ainda esclarecer e significar junto aos estudantes WHAT IS IT uma proposta de construção colaborativa. Na experiência aqui descrita, a turma se sentiu mais segura quando foi convidada a colaborar com uma proposta apresentada pela professora.

3 No primeiro dia de aula de um período (bimestre ou semestre), o professor apresenta sua proposta de construção colaborativa do planejamento



para os estudantes, destacando como é importante todos atuarem na construção do seu percurso de aprendizagem. Vale

lembrar à turma que o professor não é o único detentor do saber, que ninguém melhor do que os estudantes para dizer o que pode ou não funcionar.

- 4** Caso haja conteúdos obrigatórios a serem abordados, o professor deve contextualizar essa obrigatoriedade, mostrando como o planejamento feito por todos é importante para se pensar na melhor forma de tratar esses assuntos. Caso não haja conteúdos obrigatórios, o educador pode defender aqueles que considera relevantes ou, dependendo do caso, abrir para sugestões de conteúdos trazidas pelos estudantes.

5 Após a proposta inicial, os estudantes devem ser estimulados a opinar. Gostaram da proposta do professor? Têm outras propostas? Como abordar os conteúdos obrigatórios? Os conteúdos definidos devem ser distribuídos pelos dias das aulas, levando em consideração um encadeamento lógico entre eles.

6 Definidos os conteúdos e as datas, professor e turma passam a considerar as estratégias. Como determinado assunto será abordado? Aulas expositivas, práticas, externas? Podem ser considerados seminários, pesquisas e leituras?

7 Após a definição das estratégias, a conversa deve ser encaminhada para o quesito avaliação. Como vamos avaliar nossa aprendizagem? O que queremos avaliar? Qual será o



formato: prova ou trabalho? Em grupo ou individual? Se houver nota, quanto valerá cada avaliação? Quais critérios devem ser levados em consideração? O professor será o único responsável pela avaliação?

8 Com esse rascunho inicial feito, o professor deve formatar o planejamento final, retornando num próximo encontro para revisão e validação geral. Todos de acordo? Importante frisar o caráter de parceria e corresponsabilidade desse trabalho e do comprometimento de todos para o sucesso da empreitada. Ao longo e/ou ao final do processo, pode ser feita uma avaliação sobre o que funcionou ou não a partir dos acordos feitos, pensando juntos em formas de melhorar os futuros planejamentos colaborativos.

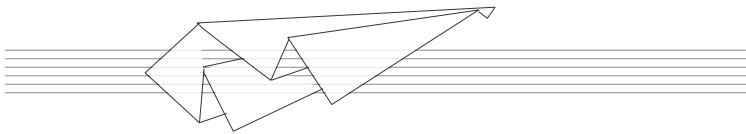


EVALUATION

The educator can evaluate who participated and who did not speak during the practice and try to identify the reasons. It would also be important to analyze if the class engaged more in this training process compared to the period in which they did not participate in the choices. Did the agreements work? Were people more active throughout the two semester, taking more classes and doing better in evaluation? In evaluating what worked and what did not work in planning, students and teachers can indicate ways to improve the process in the future.

RESULTS

Opening planning for student intervention might seem simple and desirable to do, but the first results were long silences. At first they were accompanied by a mixture of surprise and distrust. “It is up to you, teacher,” the students said on different occasions. The first significant result of the practice is when they break the silence and talk, propose, question the contents. When they get out of passivity and choose, prioritize and plan their own learning in dialogue with a group. Results were also visible in individual or group evaluations. When chosen by students, they arouse greater interest.



THE TEST OF MY DREAMS

KEYWORDS

#EVALUATION
#COLLABORATION
#APPROPRIATION

AUTHOR
MARTA FRANCESCUTTI

WHAT IS IT?

This practice is a collaborative evaluation strategy: the teacher invites students to formulate a test for their peers. Both the elaboration of the questions and their answers are the object of an evaluation that will be made by the students themselves and the educator.

SUBJECT AREA



APPLIED
HUMANITIES AND
SOCIAL SCIENCES

CURRICULUM
COMPONENT



GEOGRAPHY

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



SCIENTIFIC AND
CREATIVE THINKING



WORK AND LIFE
PROJECT



RESPONSIBILITY AND
AUTONOMY

WHY DO IT?

Reversing the roles by getting students to think about taking a test can help them reflect on the meaning of an evaluation process in the school environment. Creating a good question, rather than answering a question, requires mastery of the content. Similarly, to correct a question posed by your colleague, you need a thorough knowledge of the subject matter. For the teacher, it is an opportunity to have a more complete diagnosis of the appropriation of knowledge and skills by their students.



RESOURCES

- Papers, colored pens, tables and chairs arranged on work islands.



CLASS TIME

- This activity was developed in two classes, of 50 minutes each.

HOW TO DO IT?

Attention: Weeks before the practice, the teacher asks the whole class to study and prepare for a written test, which will be developed over two classes.

Making an evaluation can be more challenging than answering teacher-created issues.

1 On the first day of activity, the class is divided into groups of approximately five members. Each team formulates a written evaluation with five questions that can be opened for essay answers or closed for a multiple choice evaluation, true or false, cause and consequence, right and wrong. For this, students should consider all content studied over a quarter. The test will be applied to members of another group. Of the five questions, one must be easy to

solve, three must be medium in complexity, and one must be the most challenging, difficult to resolve. At the time of creating the exam, students cannot consult books or class notes. The groups have 15 minutes for the formulation. Students should note the names of those who created it on the tests.

2 When everything is ready, the evidence is collected and redistributed so that the evaluation prepared by one group is answered by another. The resolution of the test should be done within 25 minutes. At this stage, the kids cannot consult notebooks or books. They should note on the evidence the names of those who answered it.

3 After the race time is up, they are collected and redistributed again. The evaluations will be corrected by other students, ensuring that the groups do not correct the test they have planned





or solved. Thus, each group in a classroom creates a test, solves a test taken by another team, and corrects an evaluation by a third team. For correction, the kids can use up to 15 minutes. They should note the names of those who corrected it on the test.

4 The tests are collected for the teacher themselves to make their correction. For each document, three evaluations will be made: from the group members who formulated the test; of the assertiveness of the answers of the group that solved the test, reviewing the correction already made by the students and changing the scores given by the kids if necessary, and of the correct correction by the last group.

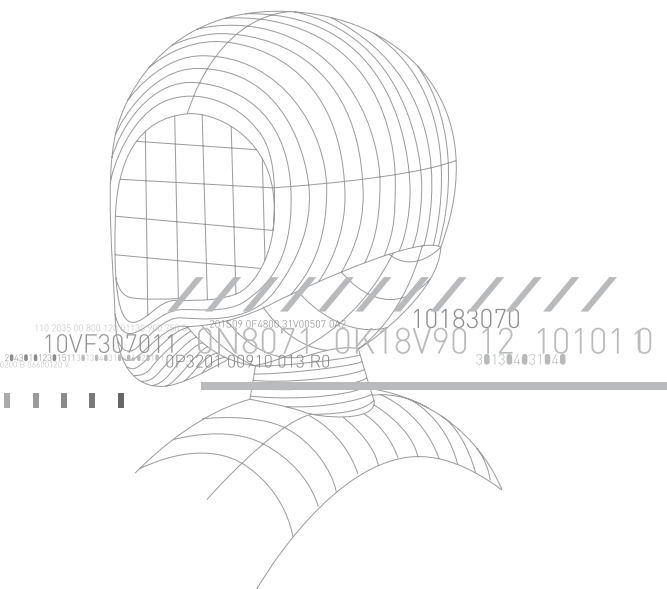
5 In the next class, the class is organized again into groups, preferably with the same composition as the previous meeting. A teacher corrected evaluation is given to each team at random. Each group makes a brief analysis of the document and organizes their reflections on the process and its outcome to present to colleagues. For this moment, the teacher can prepare some slides with analyzes of the class performance in the evaluation process. At this time, they can also review and align information on some content from what the tests indicated.



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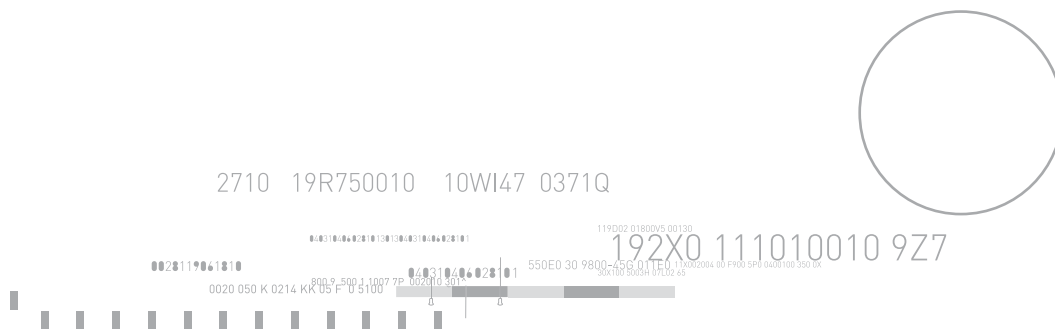
EVALUATION

To evaluate the formulation of the test questions, the observation can be made from its quality and degree of difficulty. For the resolution of the test, the evaluation is made on the correctness of the content, modifying the grades given by fellow correctors, if necessary. In correcting the test done by the students, one should observe the ability to identify the assertiveness of the responses of other kids.



RESULTS

This practice encouraged the students to make a previous study of the course contents. For them, it was more difficult and challenging to make an evaluation than to answer questions raised by the teacher. And it was precisely this challenge that engaged them in the activity. The kids took the place of the educator and understood the challenge of correcting a test. The first time they experience this route, some strangeness occurs, with questions about how to proceed. When the activity is done again, students can take more advantage of the possibilities it offers. The biggest questions arise in the correction process about how to evaluate.



IN MY SHOES

KEYWORDS

#GAMIFICATION
#EMPATHY
#CO-RESPONSIBILITY

AUTHOR
ERIKA PÊSSOA

WHAT IS IT?

This practice proposes to make students idealizers of classroom activities, assuming the role that is traditionally the role of educators. The proposal is to ask them to plan a gameplay practice on a subject or theme to which they have already been introduced.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



PROGRAMMING

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



EMPATHY AND
COOPERATION



WORK AND LIFE
PROJECT



RESPONSIBILITY AND
AUTONOMY

WHY DO IT?

There is still a lack of knowledge of the work done by educators, especially regarding the preparation of classes and activities. Encouraging students to develop playful activities develops a sense of responsibility and empathy. This practice is an excellent way to study and learn, to be a protagonist and to meet an urgent demand to break with the traditional classroom model.



RESOURCES

- The material required depends on the activity proposed by the students. The educator should encourage the least possible use of resources. In this practice, for example, PowerPoint, projector, computer, pilot and whiteboard were used.



CLASS TIME

- This activity was developed in about seven classes, of 50 minutes each.

HOW TO DO IT?

Please note: **evaluation by students participating in the activity is fundamental.**

1 The class is divided into teams of four to five students. They should choose a subject area to work with and talk to the educator responsible for the subject in question. In the described practice, the students chose to work on the theme Romanticism, in the Portuguese Language subject.

2 The teacher should reserve some classes for the teams to make their planning, as well as a break

between these meetings. Thus, students have time to talk to the teacher responsible for the subject that will be addressed in the activity and to receive feedback on what they are planning. The team agrees with the two educators how many class times are required for the activity and the date it will be done.

3 On the agreed days and times, the group gives the planned class with the presence of the specialist teacher. The class participating in the activity must answer an evaluation questionnaire. There are questions about what they have learned, whether they

would like to take more classes like this, or whether they would like to conduct an activity in the same way. The teacher who follows the activity also gives feedback on how it happened, the content covered, the participation of each person on the team, among others.

4 A class should be reserved for the analysis of the gamified activity by the group that planned it. Clicking in the following link, you can download a template for students to use to produce their reports: <http://bit.ly/2PRvtpl>.



Link for download
<http://bit.ly/2PRvtpl>



The script, presented briefly below, provides an example of the planning of the proposed gamified activity.

Tutors/Tutors:

- Carla R.
- Davi G.
- Ewellyn L.
- Gustavo H.
- Steffane R.

Subject:
Portuguese Language / Literature

Subject:
Literary Movements - Romanticism

Duration:
45 min

Overview:
Our goal is to propose that students see characteristics of literary movements, authors, works and characters and can form an easier connection.

Learning Activities:

1 Students are divided into groups of up to 6 people.

2 Instructions and rules are passed to the class.

3 There is an initial draw to decide which group will start the game.

4 Students should answer using varied tips who the authors, characters or literary movements the tips are about.

- Author: any author already studied in the Portuguese Language subject of the 2nd year of high school.
- Character: Any character from the books approached in the high school level.
- Movement: characteristics of the literary movements studied in the 2nd year of high school.
- Works: works worked in the high school level.

5 In PowerPoint slides, tips are designed for the entire room.



6 Groups have to guess the answer with the fewest tips.

7 With a correct answer, the group receives a score of missing numbers to reach 10. Ex.: The group got the answer right in tip 3, so they will get 7 points. The group can only guess every 2 tips.

8 To advance the level, the group will have to reach a certain number of points.

- **Level 1:** Required Booklet Reader 10 points
- **Level 2:** Author Assistant Required 30 points
- **Level 3:** Advice Columnist Needed

50 points

- **Level 4:** Fan Favorite 70 Points Required
- **Level 5:** History Scribe
- 90 points needed
- **Final:** Writer
- 100 points required

The winning group will be the one that reaches the “Writer” level first.

Clicking on the following link, you can download a complete template for students to use to produce their plans:
[**http://bit.ly/36xdoDb**](http://bit.ly/36xdoDb)¹



1. Link for download
[<http://bit.ly/36xdoDb>]



EVALUATION

The evaluation is done through the feedback given by the students after the activity and the reports produced after the proposal. The planning developed, the feedback from the educators who accompanied the execution of the proposals and the answers of the applied questionnaires are also taken into consideration.

RESULTS

The contents of English Language, Portuguese Language, Literature, Sociology, History, Physics and Chemistry were worked. The participants of the activities were motivated and said they wanted more meetings in this format. The teams also reported issues related to the difficulty of conducting the entire class in the planned activity, which made them better understand the role of the educator. An extremely relevant and unexpected result was the appropriation of activities by the educators who granted classes for it to be carried out.

LEARN MORE



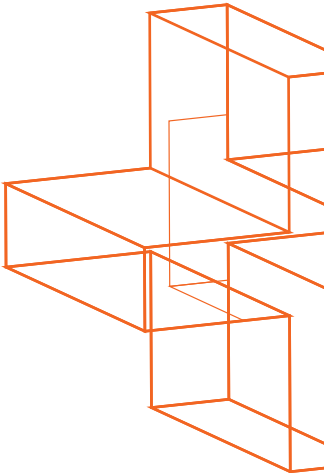
Gamification of Education
[<http://bit.ly/2qrSk08>]



Gamification: Solving real problems
with game elements
[<http://bit.ly/34wlo4r>]



10 Specific Ideas for Gamifying
the Classroom
[<http://bit.ly/2Ni9WEN>]



PLANNING TRACK

KEYWORDS

#PROJECTS
#CURRICULUM_INTEGRATION
#AUTONOMY

AUTHOR
HENRIQUE ALMEIDA

WHAT IS IT?

In this practice, the kids develop a project entirely designed by them from four categories: audiovisual, games, application and editorial. Students organize individual courses of study throughout the process, and can use the timings of various curriculum subjects. This is an activity that needs support from school management, as it is necessary to articulate the time of different teachers and subjects.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



MULTIMEDIA

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



EMPATHY AND
COOPERATION



WORK AND LIFE
PROJECT

WHY DO IT?

The personalization of teaching is based on the premise that people learn in different ways and at different rates and always articulate their interests, skills and prior knowledge. A path thought and lived by the students themselves is a great way for them to see themselves as protagonists of the learning process.



RESOURCES

- The material needed for this practice depends on the projects chosen by the students. In the practice carried out at José Leite Lopes State High School/NAVE Rio, classrooms with computers and design editing programs were used.



CLASS TIME

- This activity was developed in two classes, of 50 minutes each.

HOW TO DO IT?

Attention: **students should participate in monitoring rounds to present work progress.**

1 This project is part of the so-called Integrated Workshop, which brings together all the Technical Education, with the areas of Screenplay, Multimedia and Programming, at the José Leite Lopes State High School/NAVE Rio. The 3rd year classes are gathered in an auditorium, and students are offered to develop an original project within four possible categories: audiovisual, games, application and editorial. They choose the category of project they want to develop and can work in groups or individually. The strategy of engagement in this proposal is flexible time management: the student can devote the time of a particular subject of

technical education to the production and development of his or her original project.

2 The kids then have ten school days [or two weeks] to submit their ideas to the teachers/counselors. They must complete a form with the following items:

- Title of the project members
- Summary (short description) proposed
- Schedule of resources needed subjects covered

In the same class or until the following day, teachers may or may not accept student proposals. A project should not be accepted only in exceptional cases, when, for example, the educator evaluates that there will be no time or structure

for what was proposed. In this case, he and the students can think together about a makeover. Between project already presented and the ones that were



successful there is a 2D arena fighting game, a board game that takes place in the distant future and involves territorial disputes, and an urban art project that addresses social and gender causes.

3 After projects are approved, students should participate in follow-up rounds, i.e. they need to show mentors each week what has progressed in the project, what are the next goals, among others. Teachers evaluate progress, commitment to the schedule presented and quality of productions. If the student realizes that they will not be able to present what has been agreed in the follow-up rounds, they should inform the educator so that together they can reflect on how the difficulties encountered can be overcome.

4 In addition to the accompaniments, the development of the Planning Track is made by reference researches that take place during the classes. The student becomes responsible for time, components and production.

5 At the end of this process, the project is evaluated by an external committee, which can be formed by teachers or professionals of fashion, design, photography, programming, infographics or who have any connection with the developed projects. They go to the school exclusively for the evaluation. The presentation of the students lasts about six minutes and it is recommended that they do a rehearsal as a kind of pre-exam. The final grade is given by this external committee, made up of three people.





EVALUATION

The evaluations are made weekly by the teacher/advisor, according to the proposal and scope of the project presented by the students. The final grade is composed by the results obtained throughout the year and also by the grade from the external committee, to whom the papers are presented. Creativity, the qualification of experimentation in a given language, the management of time and processes along the production path are observed.

RESULTS

In general, the engagement of this activity is very high, including presence, participation and involvement, reaching over 80% of students. The kids discovered new talents, and some even received job offers from external committee components.



UNITED, WE WIN

KEYWORDS

#CURRICULUM_INTEGRATION
#PROJECT
#DIGITAL_ARTIFACTS

AUTHOR
CARLOS BURGOS

WHAT IS IT?

In this activity, students are prompted to solve a problem that they and their teacher have proposed for a semester or two from a project. The idea is that this project brings together knowledge from two or more subjects, which is taught by that teacher and others chosen by the kids themselves. The class is divided into three large groups, according to their preferences regarding the areas of knowledge: human, biological and exact sciences.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



MULTIMEDIA

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



SCIENTIFIC AND
CREATIVE THINKING



WORK AND LIFE
PROJECT



RESPONSIBILITY AND
AUTONOMY

WHY DO IT?

The content the kids learn in the classroom often seems to be distant from their daily life. This is partly because the school tends to separate subjects into 'boxes' which, isolated from each other, seem to have no use in the 'real world'. Integrating subjects, whenever possible, changes this scenario. The activity in question can also enhance the way kids work in teams, a skill that will be of great value throughout their lives. She further proposes that students develop a digital artifact, something that can be useful in their academic or professional career.



RESOURCES

- The resources depend on the project chosen by the students. In the practice developed at Cícero Dias Technical High School/NAVE Recife, a computer with internet access was used for each student or each pair, and digital production software (3D or 2D) that can be used to create digital artifacts with animation or still images.



CLASS TIME

- This activity was developed in three classes, 50 minutes each, and in sporadic moments throughout the semester.

HOW TO DO IT?

Attention: **a book, mockup or 3d printing can be developed by students.**

1 From their preferences, students are divided into three groups, each representing a large area: humanities, exact sciences and biological sciences. The number of people in each group may vary, but it depends on the complexity of each proposed project. A small team cannot propose, for example, a job that is beyond their means.

2 After the division, the teacher should ask students to think about what they would like to develop: a book, an image, a mockup, a 3D print, etc. The idea is that they always think of having two or more subjects combined in this project.

In the activities carried out at the Cícero Dias Technical High School/NAVE Recife, the students have already proposed, for example, to assemble a complete 3D human body to show their organs and their functioning.

3 A proposal should be written for the teacher to read and comment. In it, the groups must detail the project: how many people are part of the team, what is the goal, how will this team be divided according to tasks, how long will the idea be executed.

4 From this point, the classes always follow with a reserved time for the teacher to assist the groups on time, meeting the specific needs of each team.

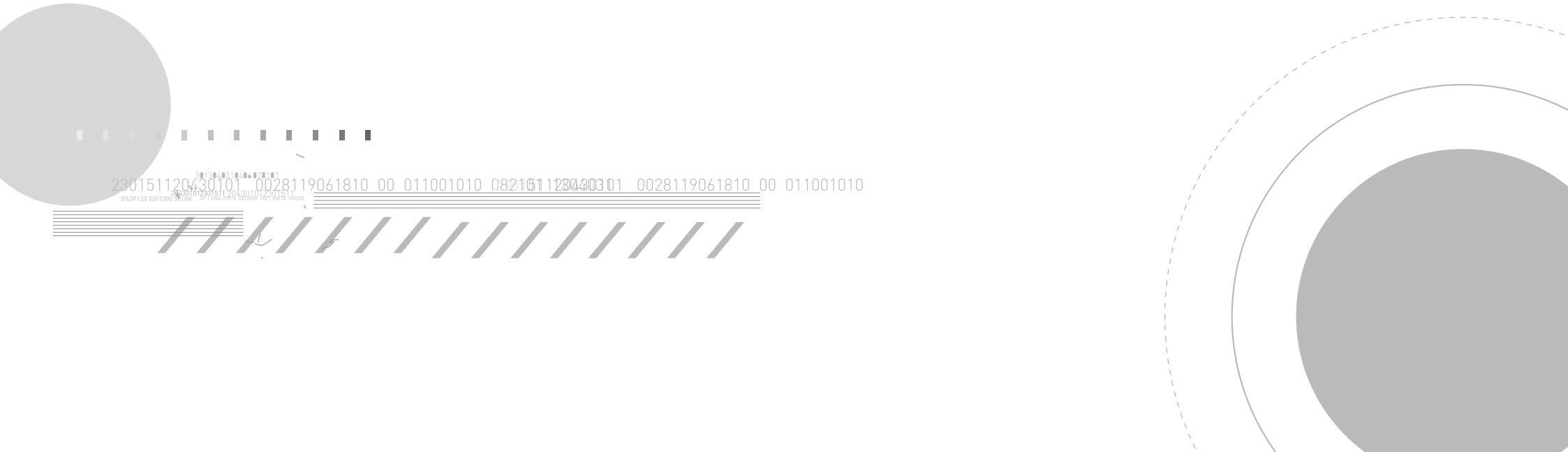


EVALUATION

Evaluations are made throughout the student project development. One suggestion is to watch the process progress daily and suggest a few days to watch the production, taking into account the progress of the work and how they are doing on time.

RESULTS

The engagement and interest of the students was visible throughout the project, mainly because they are working on something that they believe is related to their future areas of work. Some of them, within the teams, also assumed leadership positions and management of peer activities, which facilitated the teacher’s action during the punctual evaluations. As a final result of the projects, digital artifacts (images and animations) were presented that can be used, for example, in works at their respective faculties.



MIRROR CARD

KEYWORDS

#GROUP_WORK
#SEMINAR
#EVALUATION

AUTHOR
ANDRÉ WESLEY LINS OLIVEIRA

WHAT IS IT?

This is an activity in which students make team presentations on any subject content. From what they present, all kids should create multiple choice questions that should be answered by the other groups.

MODALITY



PROFESSIONAL AND
TECHNOLOGICAL
EDUCATION

TECHNICAL COURSE



PROGRAMMING

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



ARGUMENTATION



COMMUNICATION



EMPATHY AND
COOPERATION

WHY DO IT?

In group presentations, it is common for students to worry only about the subject they need to expose to the class, often not paying attention to their peers' work. This causes content that should be consolidated through this dynamic to be lost. With the activity Mirror Card, the teacher can stimulate teamwork, attract students' attention to the presentations and consolidate the content.



RESOURCES

- A4 sheets of paper;
- Colored pens.



CLASS TIME

- Ten lessons, of 50 minutes each.

HOW TO DO IT?

1 The class is divided into groups of four students. Then the teacher distributes the topics that should be work by the teams and later presented to the whole class.

2 Once the assignments are ready and the presentations are made, the educator needs to take time to discuss with the students how the process went and to evaluate the final outcome with them as well.

3 In the next step, the teacher divides one sheet of A4 paper into four parts. Each group participant will win a part. They should write a question on this card based on their own presentation, along with five answer alternatives, only one correct. Then the papers are delivered to

the teacher. As perguntas formuladas pelos estudantes resultam em uma avaliação.

4 The teacher evaluates each card based on the clarity of the question proposed by the student, if it is correct and if all alternatives are in accordance with the activity.

5 The cards return to the class, redistributed by the teacher, like a mirror, forming a kind of evaluation. Each team will receive four different cards, all made by the other groups. Then the educator collects evaluations for correction.

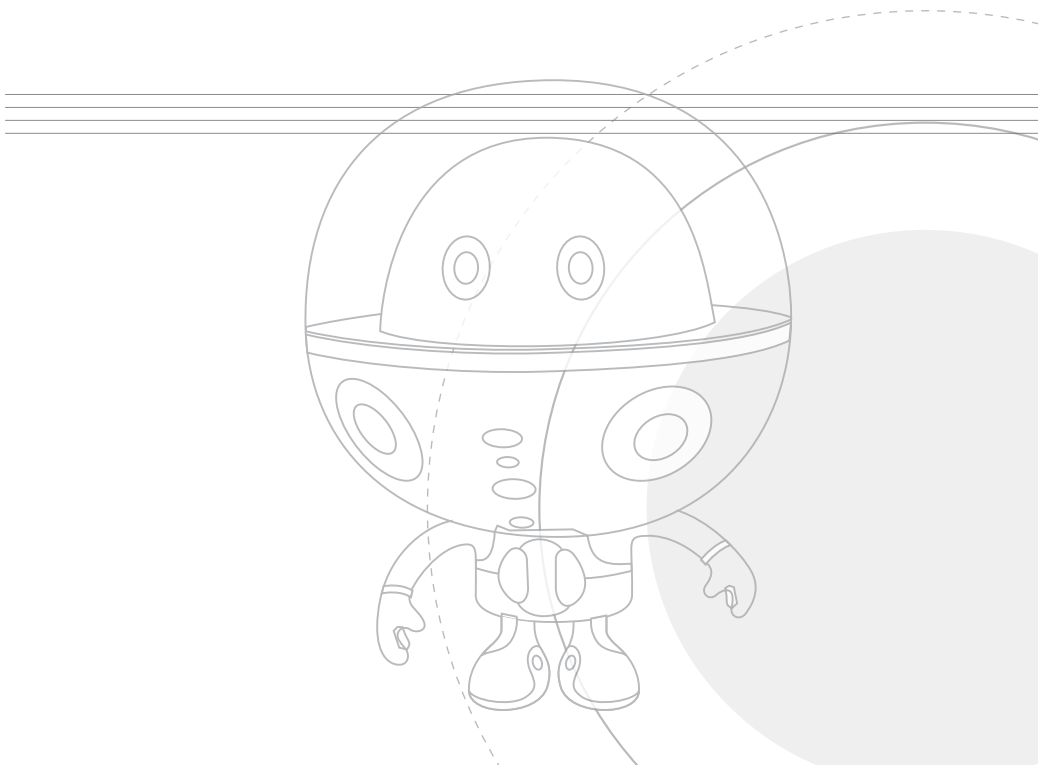


EVALUATION

There are three steps in this activity to evaluate: group presentation, card building, and mirroring (when the cards return to students and form the evaluation). The suggestion is that the first part be evaluated based on the content presented [2 points] and the ability to speak and resourcefulness [1 point]. The second is from the clarity of the question [1 point], the incorrect alternatives within the context [1 point] and the correct alternative [1 point]. The last part is worth 4 points, one for each question correctly answered.

RESULTS

The practice made the students pay more attention to peer presentations and to focus more on the card making process. In framing the questions, students are prompted to think about the answers and learn to differentiate correct and wrong information about the content.

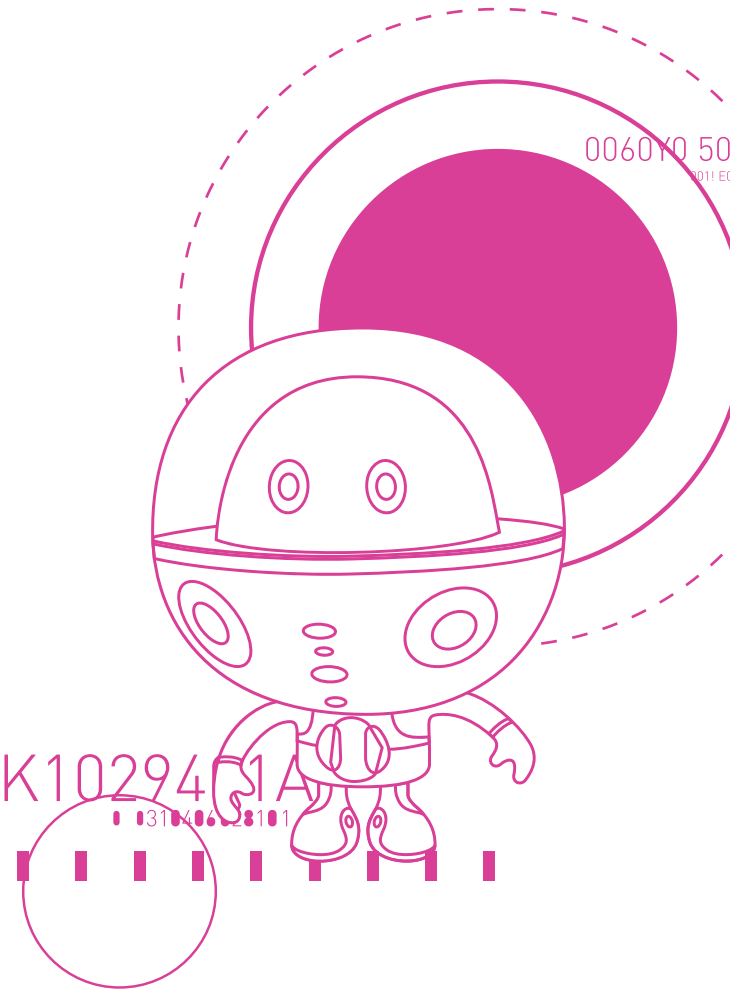


CHAPTER 7

FROM DAILY LIFE TO SCHOOL

FROM DAILY LIFE TO SCHOOL

The juice label has a lot to teach. With it, it is possible to understand laws of chemistry, metabolism, biochemistry.... There is no reason to leave it forgotten in the pantry or refrigerator, as it can be used by teachers and students for many different projects. Everything that is part of our daily life, by the way, should be in school. In this chapter, practices are gathered that do not know boundaries between the classroom and what is outside it. Labels and recipes are part of Chemistry and Biology activities; presentation techniques such as pitching, often used by entrepreneurs to present their projects in the business world, are in the practice of Professional and Technological Education subjects; the debate about refugees and immigrants is related to the content of English. School is definitely not a world apart.



IN ENGLISH, PLEASE!

KEYWORDS

#ORAL_EXPRESSION
#CURRICULUM_INTEGRATION
#PITCHING

AUTHORS
SÔNIA HORN
DANIEL MARTINS

WHAT IS IT?

In this activity, students present final works of other subjects in English. The presentation is oral and should be done as a pitch, which, in business language, means presenting something to someone in order to convince the other to invest in that idea. It is a short presentation, very well planned and fully focused on the audience for which it is made.

SUBJECT AREA



LANGUAGES AND
THEIR TECHNOLOGIES

CURRICULUM
COMPONENT



FOREIGN
LANGUAGE

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



ARGUMENTATION



KNOWLEDGE



COMMUNICATION

WHY DO IT?

We live in a globalized world where English is the language of tourism, economics and politics. Teaching it in schools and courses, however, has an emphasis on reading and writing. Talking and listening are in the background, often because of an insufficient workload. Students leave school with little ability to use English in real life conversations. It is crucial to create opportunities for them to exercise oral expression. With this activity, the kids gain confidence to speak to a large audience and, moreover, the practice promotes integration between different subjects.



RESOURCES

- Computer with internet access, projector and stereo.
- Educators must also be involved and willing to plan and evaluate in an integrated manner.



CLASS TIME

- This activity was developed in two classes, of 50 minutes each.

HOW TO DO IT?

Attention: The teacher must articulate with another school educator to plan an integrated evaluation process. The aim is to present a paper from one of the school subjects in English. In the practice carried out at José Leite Lopes State High School/NAVE Rio, the integration took place between English Language, Game Development Methodologies and Digital Games Project.

There are five minutes to present the amount, applicability and innovative nature of the products.

1 In the English class, the teacher talks about the importance of students communicating in the language and develops activities that involve oral expression. While the kids are preparing

the material to defend the projects, the educator clarifies doubts and makes corrections. The expression “sell the fish” sets the tone of the pitching presentation proposal. The idea is that students, in five minutes, show the amount, applicability and innovative aspects of the products created. The only guidance they receive about the format of the exhibition is to create a PowerPoint presentation or similar, demonstrating and reflecting on the creation process. They are also open to a quick demo of the game or app they created. Everything must be done in English.

2 A week before the presentation, the teacher should conduct a pitch rehearsal with the students. This essay is important to show them that

they should take this opportunity without worrying about pointing out errors. So they can feel more confident for the day of the integrated evaluation.



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3 For the day of the presentations, an evaluation board is organized by the two teachers who created the activity, other teachers of the school and another invited professional expert. After the exposure of each group, all educators make their considerations about the quality of the project as well as the presentation itself. They are all oriented towards commenting on positive aspects, making suggestions and indicating points for improvement.

4 The time required for each presentation is five minutes, but if there is a group with many members, it is important that educators give a little more time for everyone to have a chance to speak.



O CÉU DE RECIFE
É O MAIS ALTO DO MUNDO.
CICERO DIAS

EVALUATION

For the evaluation of game and application projects, the criteria are creativity, technical development and applicability. For the evaluation of the English subject, count on the ability of students to express themselves and interact with the public. It is worth noting that, for this subject, it is very important to let the kids communicate freely. Correcting the student immediately during the presentation may inhibit those who already have difficulty expressing themselves and may also leave them scattered. Therefore, at this time, the student is judged to do their best in the foreign language. When the class is heterogeneous with widely varying levels of knowledge, it is prudent to evaluate the performance of the group as a whole. And also value an approach that is compatible with the time available and the student’s ability to synthesize.

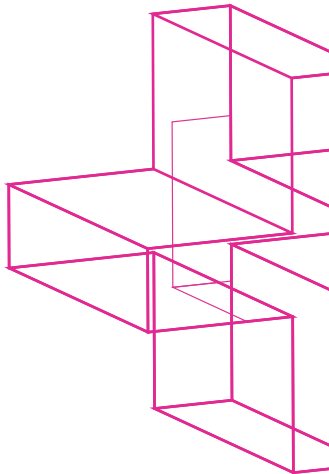
RESULTS

Students left their presentations feeling confident because they participated in an innovative activity and met the challenge of speaking English in public. In addition, the practice has developed the public speaking stance, collaboration, rapport and a balanced rotation of participation. Interestingly, most students embraced the project and, in the case of the English language, realized how often it is necessary to make mistakes to learn.

LEARN MORE



Student Presentations
[<http://bit.ly/32kh8ER>]



READ THE LABEL

KEYWORDS

#PACKAGING
#METABOLISM
#NUTRITION

AUTHOR
ANDREA PIRATININGA

WHAT IS IT?

In this practice, students analyze labels of processed foods and beverages consumed in their daily lives. The kids work in groups and evaluate the nutrition chart and ingredient list from various packages, noting and comparing available data.

SUBJECT AREA



NATURAL SCIENCES
AND THEIR
TECHONOLOGIES

CURRICULUM
COMPONENT



BIOLOGY

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



SELF-AWARENESS



COMMUNICATION



SCIENTIFIC
AND CREATIVE
THINKING

WHY DO IT?

The constant consumption of processed foods combined with little physical activity has significantly altered the health of the population. Often students are unaware of what they consume and this has bad consequences for their health. Learning to unravel a label's codes can have a direct impact on the kids' eating habits. In addition, this is an exercise that enables theoretical knowledge learned at school to be applied in practice.



RESOURCES

- Labels of various types of processed foods and beverages;
- Report recording paper;
- Ballpoint pen.



CLASS TIME

- This activity was developed in two classes, of 50 minutes each.

HOW TO DO IT?

Attention: The teacher asks the students to collect food and beverage packages that they usually use on a daily basis. For the activity to have a significant variety, each must carry at least three distinct labels. It is also important to request collection of these packages in before that school day.

Students indicate food that may cause diseases.

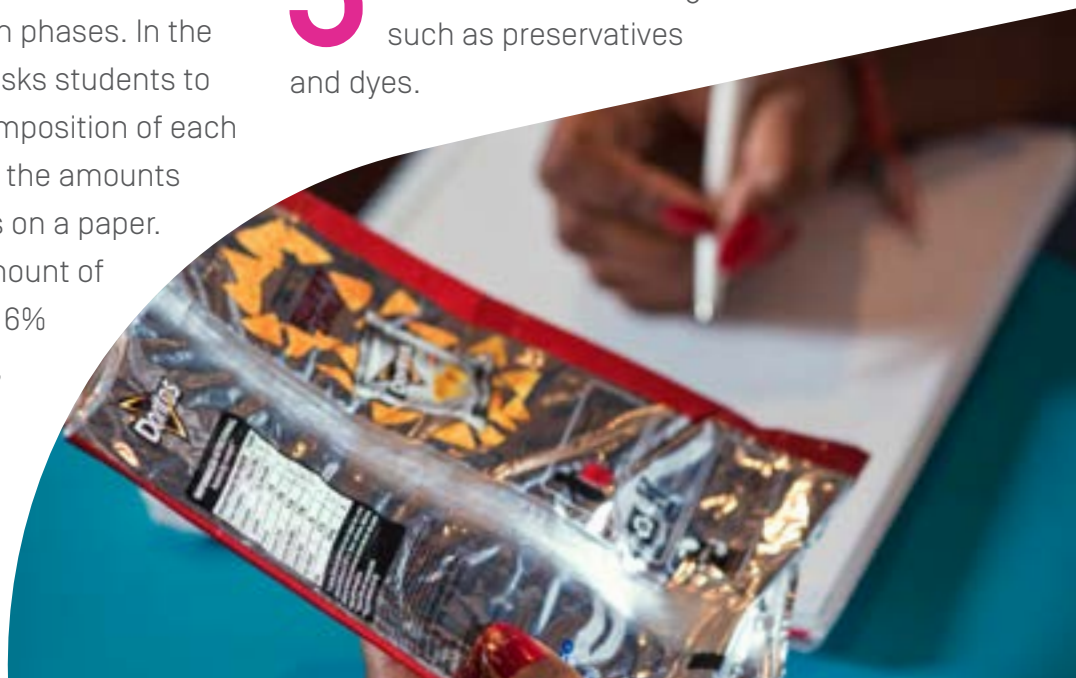
1 The activity begins with the separation of food and beverage packaging by categories (liquids, breads, pastas, candies and cookies, meats, oils and butters, breakfast cereals, grains). The teacher arranges the classroom desks into work islands according to these groups, which may vary from what is available.

2 After the labels are distributed to the desks, the educator asks the students to choose a food group in which they are most interested in going deeper and heading to the corresponding work island. From this division, the working groups are formed.

3 The label analysis activity is structured in seven phases. In the first, the teacher asks students to identify the nutritional composition of each food or drink by recording the amounts converted to percentages on a paper. For example, a certain amount of stuffed cookies contains: 6% carbohydrate, 3% protein, 9% lipids, etc.

4 After completing the general records, the educator asks the kids to indicate the nutritional ingredient with the highest percentage. For example, in chocolate, students will note that the main nutrient is carbohydrate.

5 Then students should write down unnatural chemical ingredients such as preservatives and dyes.



TRADITIONAL ROMAN YOGURT

Portion [g]	120*	100**
Energy value [kcal]	111	93
Carbohydrates [g]	15	13
Proteins [g]	7,4	6
Total fat [g]	2,4	2
Saturated fat [g]	1,4	1
Trans fat [g]	0	0
Dietary fiber [g]	0	0
Sodium [mg]	54	45



CARBOHYDRATES

These act as our source of energy, that is why they make up most of the calories in food.



ENERGY VALUE

This is what calories are called, which represent the energy that the body produces once food is consumed.



PROTEINS

These help build and conserve tissues, organs and cells.



FAT

Fats, or lipids, are of fundamental importance to our organism. In excess however, they can cause health problems.



SODIUM

Important for regulating water in the body, but when consumed in excess, can cause hypertension and liquid retention.



For example, instant noodles have flavor enhancers, a soda has flavorings, a cereal bar has anti-humectant.

6 After the initial analyzes, the kids should establish relationships and comparisons. They can compare, for example, two different brands of stuffed cookie or two juice brands and define which one has the least harmful ingredients, taking the Brazilian food pyramid as the parameter.

7 Then students highlight three food labels that are made up of an excess of some ingredient and relate that excess to some disease. A bag of potato chips has a high percentage of sodium, which causes hypertension; a bottle of soda has a high percentage of sugar, which is related to diabetes.

8 The teacher then asks students to identify the healthiest foods in the group of labels analyzed by the group.

9 Finally, the class organizes their records and analysis into a report that is delivered for teacher evaluation. One document is made per group. The class concludes with an oral presentation by each team, so that the kids highlight their results to their peers, demonstrating mainly which foods and beverages can cause disease and also those that are most beneficial to health.



EVALUATION

A grade is attributed to the report produced by the students, verifying organization, coherence, in addition to the quality of the analysis and ability to articulate with the contents covered in previous classes in the subject.

RESULTS

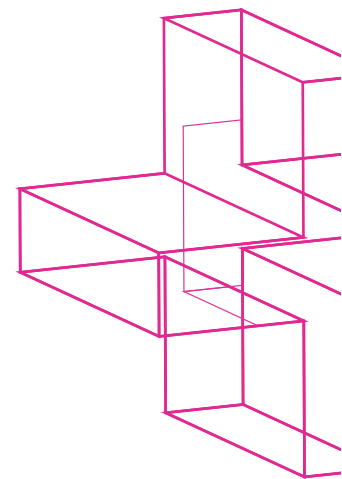
When the student experiences the experiments and analyzes provoked by this practice, they can compare their diet with the parameters of healthy eating. Often times, kids are surprised at how much sugar or fat contained in what they consider to be an “innocent” snack or cookie consumed daily. In the end, they can see what needs to be changed in their consumption and can better identify which foods are sources of quality nutrients.

LEARN MORE



ANVISA Portal –
Documento
“Rotulagem nutricional
obrigatória: manual
de orientação
às indústrias de
Alimentos - 2º Versão”
(<http://bit.ly/2NhoqVy>)

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IN SOMEONE ELSE'S SHOES

KEYWORDS

#BIOGRAPHY
#REFUGE
#PAST

AUTHOR
SÔNIA HORN

WHAT IS IT?

In this activity, students learn about biographies of migrants and reflect on the theme of refuge. The kids may experience the sensation of putting themselves into other people's shoes, establishing empathy, and reflecting on how to deal with their peers. From the reports, it is possible to deal with a content of the English Language subject, which is the conjugation of regular and irregular verbs in the simple past.

SUBJECT AREA



LANGUAGES AND
THEIR TECHNOLOGIES

CURRICULUM
COMPONENT



FOREIGN
LANGUAGE

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



EMPATHY AND
COOPERATION



SCIENTIFIC
AND CREATIVE
THINKING

WHY DO IT?

We have witnessed severe humanitarian crises in the world, such as the war in Syria, political instability in Venezuela and persecution in various countries in Africa. Brazil has been a country of refuge for many of these migrants. However, a simplistic, stereotyped or prejudiced view of these foreigners is still prevalent here. Combining this subject with English teaching is extremely relevant for students. In the English language, the activity explores the biography genre and verbs in the simple past. Faced with a society in crisis, we need to revive the ability of our students to understand another person's feelings and emotions, which may be called the Ethics of Caring.



RESOURCES

- Projector;
- Computer with internet access;
- Slides and videos.



CLASS TIME

- This activity is developed over two months.

HOW TO DO IT?

Attention: **in this activity students, students learn about the biography of young pakistani malala.**

1 The teacher presents the theme of the refuge and tells the students that this will be a subject addressed over the next two months. They begin the debate by asking the kids if any of them have family members who came from another country. The idea is to involve them affectively. It then explores the dramatic issue Syria has been going through in detail and continues to ask students questions to understand what they already know about the subject, bringing in new knowledge and aggregating data. The goal is to make them realize the relevance of the theme.

2 In the next class, through a debate, the educator seeks to make students aware of the differences in meaning between the words refugee and migrant. From this legal motto, it mobilizes reflections on prejudice, cultural stereotypes, multiculturalism and cultural diversity.

3 At the third meet, the students watch some short videos.

- The first one, “What does it mean to be a refugee?” [What does it mean to be a refugee?], is a TED talk that reflects on what it means to be a refugee around the world.
- The second, “Brazil welcomes refugees” shows what it is to be a

refugee in the country, what are your rights and what are the nationalities.

4 In this part of the activity, students are introduced to the textual biography genre from the story of the young Pakistani Malala Yousafzai, who became a refugee after being attacked for wanting to study. After reading the biography, the kids are led to reflect on human rights, respect for differences and cultures. The conversation may address the veils worn by Muslim women in some cultures and the differences between burka, niqab and hijab. Then a text available



on the internet entitled “Malala Yousafzai biography” is presented to the students through slides. Verbs in the past are underlined, as are adjectives.



5 In the next class, everyone is invited to reread Malala’s biography, but this time the teacher engages new reflections. The focus is on the content of the English language course. When reading, students should underline the verbs that are used to describe the narrative. During reading, it is necessary to draw attention to the chronological sequence, which occurs through an ordering in the use of verbs in the past. This is a feature of the textual biography genre, and the teacher helps students understand the sequence of verb usage, with a beginning, middle and end. In addition to past verbs, the kids also learn to identify adjectives when reading the text, further improving vocabulary.

6 In the sixth and seventh meets, other biographies are read in English, which were also passed to slides. The biographies are adapted and on the site from which they were taken, there are life stories of various refugees, such as the Addy Family from Syria and the Machosi Family from the Congo.

7 In the following four meets, the teacher gives an exposition on grammar, addressing the simple past in-depth, presenting the forms and use of this tense, always articulating the theory with the texts of the biographies presented. First, students learn about the past tense of regular verbs. In a second phase, about the irregular verbs in English.

8 As a culmination of the two semester, students, teachers and other members of the school

community attend a lecture by a guest refugee. In the experience reported here, the class was attended by a young man from Venezuela, who reported the reasons and his process of refuge to Brazil. All of the kids asked questions and were able to discuss topics learned in class with the guest.

9 Finally, the semester concludes with a review of the process for evaluating positive and negative points, which students liked the approach most and what they did not like so much. The kids are invited to write a biography about a refugee in English. The teacher also organizes a quiz game to observe vocabulary acquisition, especially adjectives.



EVALAUTION

The evaluation can be made from a note given to a short biography written by students and also a vocabulary game, with emphasis on adjectives. Observation of youth participation has been constant since the first debates.

RESULTS

The students showed a lot of interest in the subject. It was important to demystify so many stereotypes about foreigners, especially refugees who come to Brazil and

suffer from prejudice. Learning about the past from the biography genre ended up becoming inductive and contextualized. For a novice student, it is challenging to learn irregular verbs in English, even more so to identify and differentiate between regular and irregular verbs. Most importantly, students were also asked to put themselves in each other's shoes. There was support from Organização Pares-Cáritas of Rio de Janeiro, which greatly collaborated with information and suggestions on how to approach the theme of refuge. Many were surprised because they did not imagine, for example, that the right to education is denied in many cultures. Others sympathized with the issue and expressed interest in supporting and working directly with refugees in the future, for example as volunteers.

LEARN MORE



Malala Yousafzai's Speech at the UN
[<http://bit.ly/34yBgVm>]



Refugees and refugee solicitants assistance program
[<http://bit.ly/2r804Dg>]



Refugee Voices
[<http://bit.ly/2qn5Ja8>]



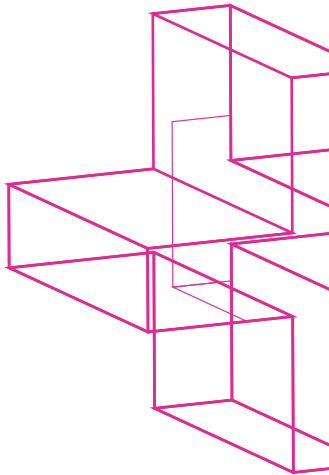
Brazil Welcomes Refugees
[<http://bit.ly/33iiBg5>]



Booklet for refuge applicants in Brazil
[<http://bit.ly/2WPaW6z>]



UNHCR - UN refugee agency
[<http://bit.ly/36ud1t4>]



MASTERCHEMISTRYCHEF

KEYWORDS

#KITCHEN
#MUG_CAKE
#RECIPE

AUTHOR
HUGO MAGNATA

WHAT IS IT?

This practice takes students to the kitchen to learn chemistry concepts. A simple mug cake recipe is used as a starting point for talking about Lavoisier’s law on the conservation of dough and Proust’s law on proportion.

SUBJECT AREA



NATURAL SCIENCES
AND THEIR
TECHONOLOGIES

CURRICULUM
COMPONENT



CHEMISTRY

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



ARGUMENTATION



COMMUNICATION



SCIENTIFIC
AND CREATIVE
THINKING

WHY DO IT?

Chemistry is part of our daily lives and can be found in places as ordinary as a kitchen. Often their concepts, laws and rules seem distant to the kids. Taking the subject out of the classroom is a great strategy for bringing it closer to students.



RESOURCES

- Teaspoon, tablespoon, oil, milk, sugar, chocolate powder or chocolate milk mix, wheat flour, baking powder, eggs;
- Scales;
- Microwave oven;
- Gas stove;
- Mugs;
- Large cake pan.



CLASS TIME

- This activity was developed in two classes, of 50 minutes each.

HOW TO DO IT?

Attention: Students are divided into groups of five members. Each team should bring the ingredients needed to make the mug cake and a medium sized cake pan in the next class. The teacher divides which products each one should bring.

Following the recipe is key.

1 At the beginning of the next meet, the educator talks about Lavoisier's Law, relating this content to the mug cake. Two starting substances, called reagents, when put in contact, react to form a product. The amount of mass of the reagent equals that of the product. In the recipe in question, the same happens: the dough of all ingredients is equal to the dough of the finished cake.

2 Then the groups start making their recipes by putting all the ingredients in the mug, based on the recipe placed on the board by the teacher. The dough is weighed on a scale before being placed in the microwave.

3 The mug is removed from the microwave and again the dough is weighed. Thus, once again Lavoisier's Law is brought into debate.

4 In the second part of the class, the teacher discusses Proust's Law, proposing that the groups



make an average cake recipe equivalent to five mug cakes. According to Proust's Law, if one reagent is folded, the others must also be for the reaction to happen. The idea is to do the same: if the amount of eggs increases, you need to increase the amounts of all other ingredients to have a cake with the same flavor.

5 The groups then place the ingredients in the medium container and take it to the stove. When they remove it, they try this larger recipe as well as the mug cakes to compare the flavors.

6 At the end of the activity, groups should report on what they have learned from the practice, how it relates to the course content, what other applications they could think of with these same concepts in our daily lives.

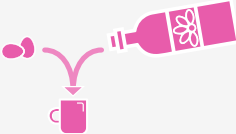


INGREDIENTS

- 1 egg
- 3 tablespoons of oil
- 4 tablespoons of milk
- 3 tablespoons of sugar
- 3 tablespoons of chocolate powder or chocolate milk mix
- 4 tablespoons of flour
- 1/2 tablespoon of yeast


STEP-BY-STEP

1



IN A CERAMIC MUG, ADD THE EGG AND OIL.

2



NEXT, ADD MILK, SUGAR AND CHOCOLATE POWDER

3



MIX UNTIL ALL INGREDIENTS ARE COMBINED.

4



LITTLE BY LITTLE ADD THE FLOUR WHILE MIXING.

5



LAST, ADD THE YEAST AND MIX.

6

✓ 3 Minutes



MICROWAVE FOR 3 MINUTES

IMPORTANT



WEIGHT ALL OF THE INGREDIENTS BEFORE MAKING THE RECIPE AND OF THE CAKE WHEN IT IS DONE: THE DOUGH FROM BOTH ARE THE SAME, THUS CONFIRMING LAVOISIER'S LAW.

EVALUATION

The evaluation takes place through the participation of students in the activity and also by the result of their reports, delivered at the end of the practice.

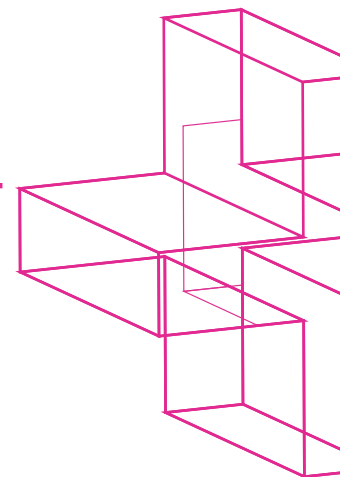
RESULTS

Theory and practice, when allied, help in understanding the content. This was one of the main points perceived with this activity. Some classes enjoyed the practice so much that they wanted to stay after class time to try out new recipes. The idea eventually extended to other subjects. With the math teacher, for example, pizzas were made, with activities that dealt with chemical reactions and, at the same time, combinatorial analysis, based on the possibilities of covering the recipe with the most varied ingredients.

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LEARN MORE

- Borges, M.N.; Chacon, E.P.; Coutinho, L.G.; Ribeiro, C.M.R. A química na cozinha: possibilidades do tema na formação inicial e continuada de professores, vol. 8, num. 1, jan-abr.2015.



PERFECT COMBINATIONS

KEYWORDS

#COMBINATORIAL_ANALYSIS
#CREATIVITY
#CÁLCULO

AUTHOR
MARIZA HERMES DO CARMOS

WHAT IS IT?

This activity shows how the concepts of combinatorial analysis - arrangement, combination and permutation - are present in our daily lives. Students attend workshops where they need, for example, to indicate what calculation is needed to find out how many possible combinations of clothing are in a vacation bag or the variations of sandwiches in a deli.

SUBJECT AREAS



MATHEMATICS AND ITS TECHNOLOGIES

CURRICULUM COMPONENT



MATH

TARGET AUDIENCE



HIGH SCHOOL



ADULT LEARNING

SKILLS



ARGUMENTATION



COMMUNICATION



SCIENTIFIC AND CREATIVE THINKING

WHY DO IT?

Mathematics is a subject that is considered difficult by many students, which makes many of them show no interest in its concepts. Understanding the content becomes easier and lighter when it appears contextualized, that is, when the kids can clearly see its applicability in everyday life. This activity is designed to make sense of combinatorial analysis learning meaningful.



RESOURCES

- Computer with internet access;
- Projector;
- Clothing racks, clothes, chairs, shoes, props;
- Paper, glue, crayons, magazines.



CLASS TIME

- This activity was developed in five classes, of 50 minutes each.

HOW TO DO IT?

Attention: **students learn how to win at checkers using combination analysis.**

1 The teacher starts the activity by dividing the class into three groups. Each must choose a concept of combinatorial analysis: arrangement, combination, permutation. The idea is that the educator, also in this class, talk about these concepts, explaining when they can be applied and what they are for.

2 Students are invited to attend workshops. From practical examples, they should point out if the concept worked by their group can be used in calculating the problems proposed in these activities. Some workshops bring real elements such as garments that will

be used to organize a suitcase. Throughout the process, the kids need to note the associations between experience and mathematical content.

Vacation suitcase

What clothes should I wear?
Organize a suitcase for a vacation from a real wardrobe, calculating how many combinations can be made with the choices.

Restaurant

Set up the menu. Create a deli with various types of sandwich and see how many ways recipes can be made to serve customers.



Roller coaster

Who's in? How many ways can a roller coaster be occupied without repetition so that everyone can ride on the toy?

Checkers

It's in the game. The use of combinatorial analysis as a strategy to win a checkers game.

3 The students are reunited to recover associations they have made, create other problem situations, deepen the contents and solve the proposed calculations.



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O CÉU DE RECIFE
É O MAIS ALTO DO MUNDO.
CÍCERO DIAS

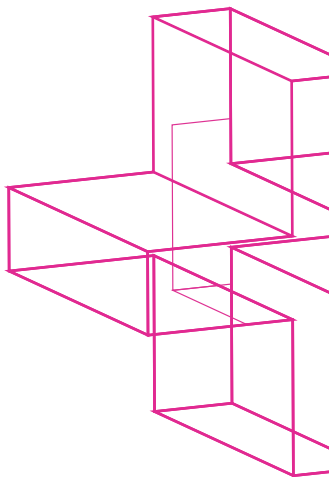
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EVALUATION

The teacher must observe the creativity and motivation of the students during the workshops, as well as their willingness to apply the contents learned in practice and the contextualization of concepts.

RESULTS

The kids performed better in terms of content and exercise resolutions. Positive student engagement and feedback have shown how important it is to relate math to everyday needs. Many have said that content has now made sense and that they will not forget what combinatorial analysis is and what it is for.



PITCH WRITING

KEYWORDS

#ORALITY
#WRITING
#ENEM

AUTHOR
PATRÍCIA OLIVEIRA

WHAT IS IT?

In this practice, the kids study and debate possible writing topics of ENEM [National High School Exam]. After working in groups, these same themes are presented to the class as a “pitch,” a kind of presentation often used by entrepreneurs that lasts a few minutes, long enough to spark interest for those watching to “close the deal”. After all the kids present the themes, the class is invited to produce essays from them.

SUBJECT AREA



LANGUAGES AND
THEIR TECHNOLOGIES

CURRICULUM
COMPONENT



PORTUGUESE
LANGUAGE

TARGET AUDIENCE



HIGH SCHOOL



ADULT
LEARNING

SKILLS



COMMUNICATION



KNOWLEDGE



SCIENTIFIC
AND CREATIVE
THINKING

WHY DO IT?

One of the biggest difficulties pointed out by students when writing a dissertative-argumentative text is to discuss the proposed content. Since they already know the structure needed for this type of writing, it is important that they are also prepared to argue and propose solutions to possible topics covered, which may cover the most diverse areas of knowledge. With this activity, besides being better prepared to write, the students also develop synthesis and oral expression skills, with the pitch presentation of the themes.



RESOURCES

- Computers or other internet-enabled devices and presentation formatting programs, such as Power Point;
- Projector.



CLASS TIME

- This activity was developed in eight classes, of 50 minutes each.

HOW TO DO IT?

Attention: **all students must actively participate in the presentations.**

1 The teacher starts the activity by dividing the class into groups of five and each team receives a theme from a draw. Some examples of writing subjects they can work on: growth of the elderly population in Brazil; new family arrangements; limits of aesthetics in favor of health; urban mobility; sustainable companies; drug trafficking in major cities. Before distributing the themes, the teacher can talk about each of them briefly, commenting on the most relevant points. At this same stage, students receive more details of how the presentation should be made and what a pitch presentation should be. Some pertinent questions for the organization of oral expositions:

- Presentations cannot escape the theme, they must be clear and last for a maximum of ten minutes. They should also have slides, which can be made in programs such as PowerPoint and that need to be compact and attractive: each slide should be displayed for one minute during the exhibition.
- All members should speak during the presentation.
- Explanations need to follow a logical train of thought so that the public understands whether that content can be used as an introduction to the essay, as a thesis in its development, or as a proposed solution in its conclusion.



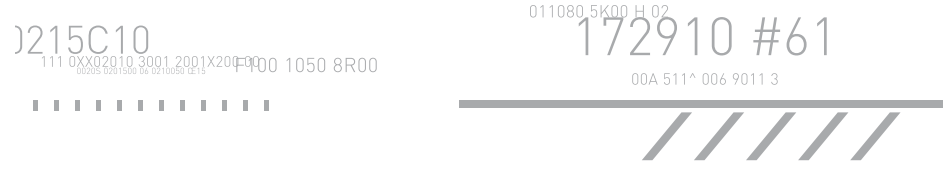
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2 The papers are presented three weeks later. The time of each group should be timed by the teacher. They will warn, using signs, when the presentation is nearing its end and when it ends. The educator should also complement the subject as necessary and give time at the end of each presentation for questions from those who attended.

3 Following the presentations, students write essays on one of the topics presented, chosen by the teacher. The educator distributes the proposals and motivating texts, as well as a scrap sheet and an official sheet. They should also remember, at this moment, the five skill of ENEM that will be required for the essay.

4 In the following classes, the teacher returns the corrected essays and proposes that the students rewrite them, based on what they pointed out as possible changes. After this rewrite, the educator draws a student's name to share the changes they have made to the class and to receive other suggestions from colleagues. It is worth noting that not everyone likes to have their essays analyzed by the class, so it is necessary to ask who is drawn if they want to participate this way.

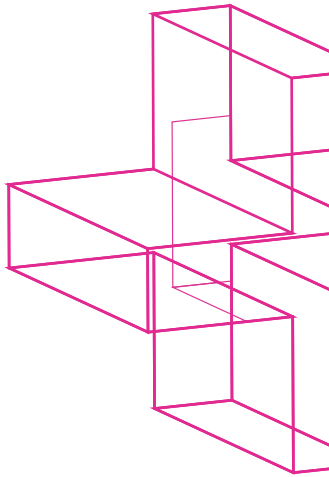
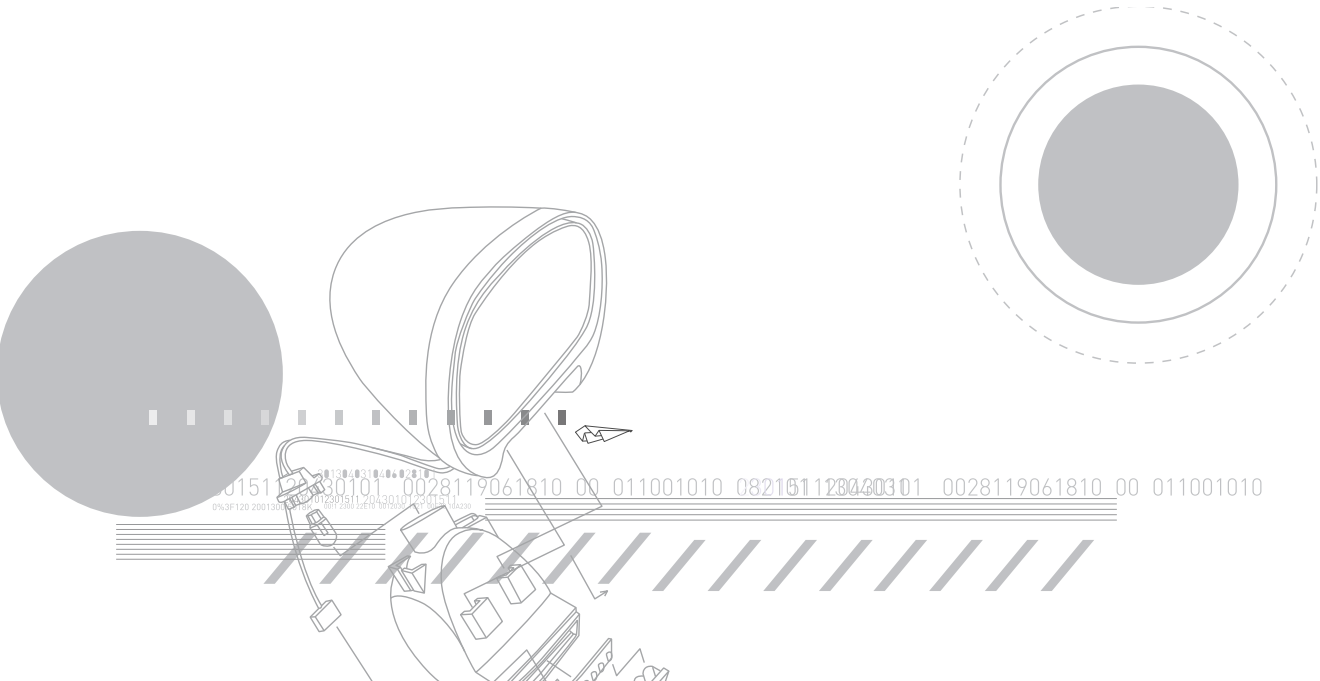


EVALUATION

The evaluation was continuous, extending from checking the quality of the research for the presentation of the theme, to the material produced in Power Point, the posture and orality at the time of the pitch, the written production and the rewriting of the essay. The teacher can give more weight to one aspect or another, so as to reach a final grade.

RESULTS

Students learned to select and rank important content. They consistently used cartoons, comic strips, statistics, newspapers, internet articles, and relied on historical facts in their presentations. Thus, they showed knowledge of the linguistic mechanisms necessary for the construction of arguments. The textual production of the class had a considerable improvement.

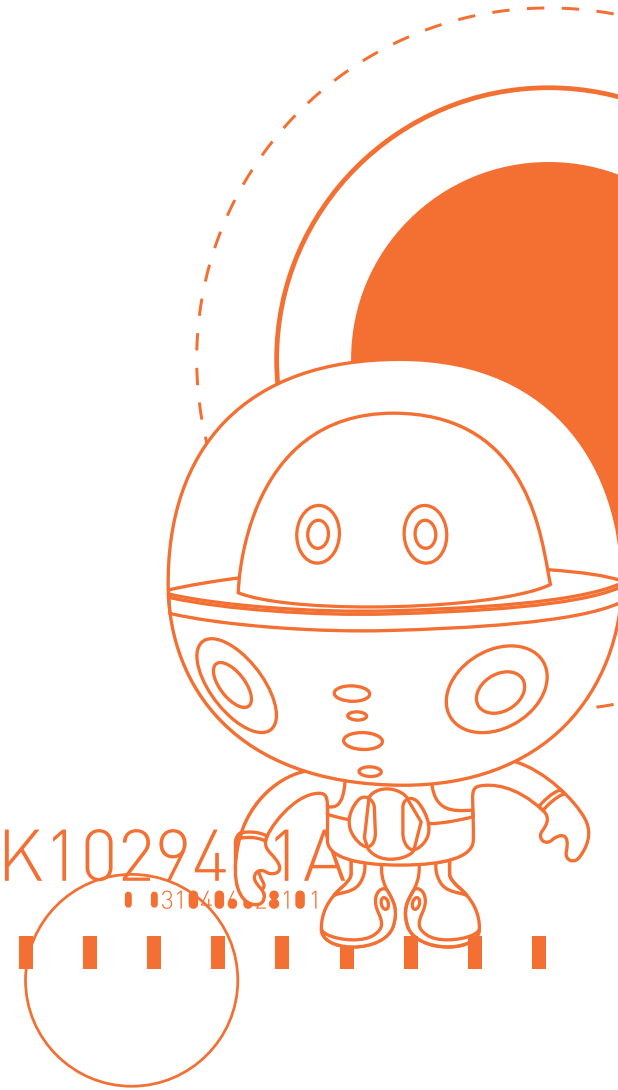


CHAPTER 8

BODY IN MOTION

BODY IN MOTION

The body needs to work and relax as much as the mind. Taking care of physical health is something that all students should do, as the Common National Core Curriculum indicates in their general skills area. This book comes to its last chapter by making two invitations that, while distinct, are essential to our development: to move and relax. In the first practice, a large dance festival, with choreographies planned and performed by the kids and which takes an entire quarter to come complete, takes over the school. In the second, meditation and relaxation techniques are debated and experimented in the classroom, so that students know exactly what to do in case of stress inside and outside of school. The package is thus complete.



NON-STOP DANCING

KEYWORDS

#MOVEMENT
#CHOREOGRAPHY
#FESTIVAL

AUTHOR
EDUARDO AROUCHA

WHAT IS IT?

In this activity, students produce and perform a large dance festival. In it the most diverse styles of music, national and international are contemplated, and the participation of the kids takes place on several fronts: conception, musical research, choreography, scenarios, among others. The event takes place at a large party open to the entire school community.

SUBJECT AREAS



LANGUAGES AND
THEIR TECHNOLOGIES

CURRICULUM
COMPONENT



PHYSICAL
EDUCATION

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



SELF-AWARENESS



EMPATHY AND
COOPERATION



CULTURAL
REPERTORY

WHY DO IT?

Dance can be a good way to bring Physical Education closer to other subjects, such as Art, History, Portuguese or English. It also brings new possibilities, other ways of moving the body that go beyond the traditional sports practiced in school. Dance is directly linked to socialization: it encourages friendships, respect and companionship.



RESOURCES

- Sound system;
- Computer or any other device with internet access;
- Various materials for making costumes, scenery and stage;
- Award artifacts such as medals or trophies.



CLASS TIME

- This activity was developed over a quarter.

HOW TO DO IT?

Attention: **two jurors, an artistic and a technician, evaluates the dance groups.**

1 The teacher defines the types of dance that will be worked on in each grade. In the activity held at the Cícero Dias Technical High School/NAVE Recife, for example, the first year was with Brazilian regional dances; the 2nd year, street dance; and the 3rd year, musicals. As there is work done in conjunction with the subjects of Portuguese Language, History and Art, teachers need to come together to discuss the issues related to the research of songs and their lyrics, choreography, scenario design, promotional posters, among other subjects.

2 After organizing the project, the educator should take the proposal to the classes and also explain their objectives and all the necessary steps until the festival. The kids are divided into groups with different roles according to their preferences. A class of 45 students can be divided as follows:

- Dance corps: 12 to 25 students
- Costumes: 3 to 5 students
- Set design: 3 to 5 students
- Sonoplasty: 3 to 5 students
- Research: 3 to 5 students
- Screenplay: 3 to 5 students





3 Then the choreographers of each class are defined, which are chosen from volunteer students. They are responsible for researching how the dances will be. The Physical Education teacher is responsible for guiding the process.

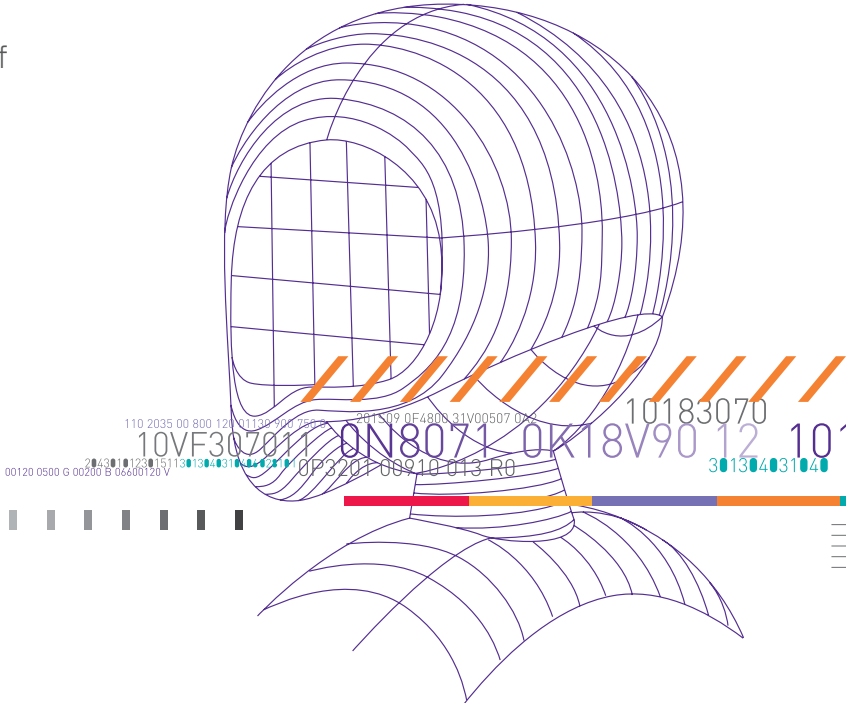
4 The next step is to set the times for the choreography rehearsals, which will be done in Physical Education classes and at free time. Students who will perform other duties, such as setting scenarios, costumes, historical research and event script, use these same times to develop their work.

5 During the two months, the teachers gather to form the examination board that should have four jurors, two artistic [school teachers] and two technicians [outside guests who may be physical education students, dance

teachers, among others]. On the day of the event, this jury will give grades to the classes, taking into account all aspects of the presentation.

6 The highlight of the practice is the dance festival, which can take place on the school court or in an open space if the institution has one. All classes involved participate, i.e. the choreographies and works are presented in a single day. The event also includes the participation of families and teachers of other subjects.

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EVALUATION

The evaluations are done during the two months, taking into account not only the grades given by the jury’s teachers and technicians on the day of the event, but also the class participation, according to each one’s tasks.

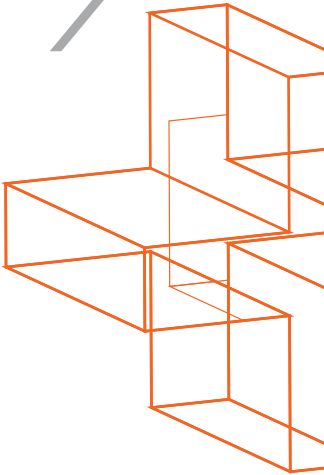
RESULTS

The practice allowed an effective integration between the subjects involved, which allowed the development of psychomotor skills, socialization among students and new knowledge of art and music. The activity brought together the school community as a whole, which was extremely positive for students, teachers and families.

LEARN MORE



Video about this practice at the Cícero
Dias Technical High School
[<http://bit.ly/2JQPTeP>]



MOMENT OF RELAXATION

KEYWORDS

#STRESS
#RELAXATION
#BODY

AUTHOR
ISABEL BLANC

WHAT IS IT?

In this activity, students learn relaxation-promoting movements and positions that are easily replicable at other times and places, even outside school. This is a practice that helps kids cope with everyday stress and prevent tension in times of distress.

SUBJECT AREAS



LANGUAGES AND
THEIR TECHNOLOGIES

CURRICULUM
COMPONENT



PHYSICAL
EDUCATION

TARGET AUDIENCE



ELEMENTARY
SCHOOL



HIGH SCHOOL



ADULT
LEARNING

SKILLS



SELF-AWARENESS



EMPATHY AND
COOPERATION



SCIENTIFIC
AND CREATIVE
THINKING

WHY DO IT?

The practice of relaxation exercises encourages students to have knowledge that helps them reverse bad situations and relieve stress. This is especially important during test weeks or handing in work when, feeling pressured, they may have a proactive attitude in dealing with the problem. With activities like this, the kids expand their motor and affective repertoire.



RESOURCES

- The activity can be performed in any environment, but students should preferably be in comfortable clothing.



CLASS TIME

- This activity was developed in 16 lessons, of 50 minutes each.

HOW TO DO IT?

Attention: **reflecting what can cause us stress is part of the activity.**

1 The activity begins with a lecture with **slideshow**¹, causing the kids to reflect on the stress and the factors that generate it. In this meeting, the teacher deals with social behaviors, such as agitation, anxiety and immediacy, which are considered normal, but which

underlie unhealthy habits and influence the quality of life, generating stress.

2 In the next two classes, the teacher asks students to reflect on their routine and when they feel the most stress. They should make an individual diary of habits, recording their daily experience. Each kid produces his or her report and, thus, a debate is held so that the experiences can be shared. Throughout the activity, the teacher asks students to reflect on the theoretical knowledge acquired in the previous class, identify the situations that cause stress in their record and what they do to mitigate it.

3 Then students try relaxation exercises. Various positions and techniques are presented, while their benefits are highlighted. This series of exercises is comprised of global stretching of large muscle groups, breathing techniques, easier and more common movements of yoga isometry and balance, and massage with specific shiatsu and massage therapy techniques. After this experience, the class returns to a theoretical class, where new concepts and information are presented. The goal is to ensure that students are able to analyze their demands individually and can perform the exercises in the learning series according to their needs.



1. Slideshow
[<http://bit.ly/2Nv3Pg9>]



4 Next, the class is divided into groups of approximately five members. They should research in the computer lab the relaxation practice that pleased the team the most.

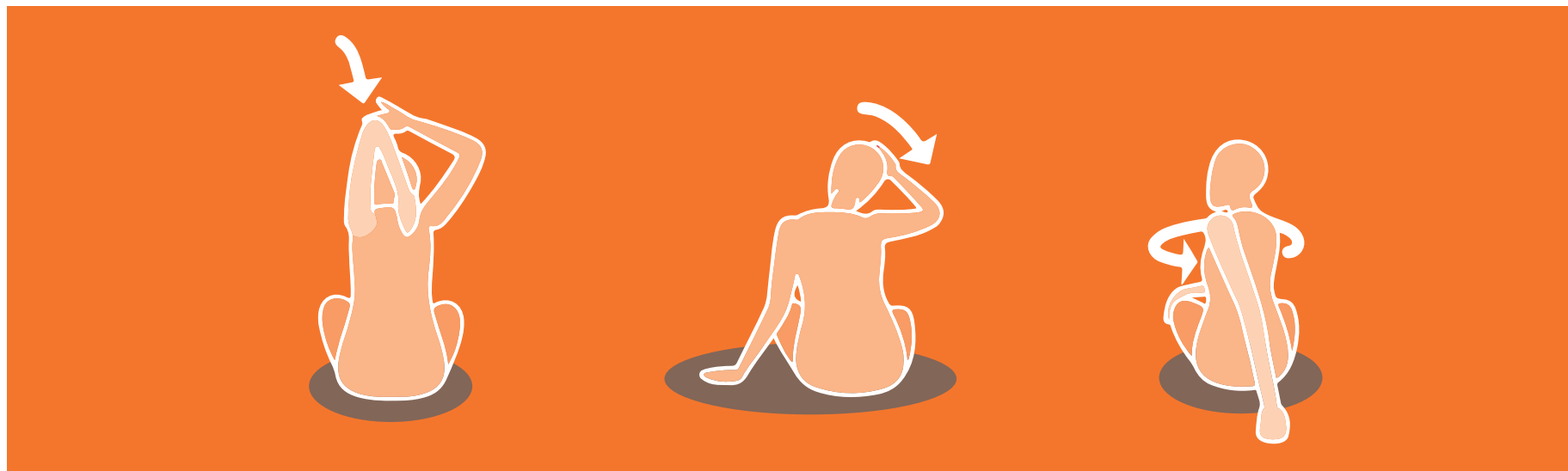
The goal is for them to delve into the theme and set up a new sequence of exercises that will be practiced with colleagues. Thus, they become autonomous to propose and assist other students in class. Each group then develops a specific relaxation class.

5 The groups present their series of exercises for the class and everyone can suggest improvements. In this

conversation, the teacher again highlights the importance of developing preventive actions to avoid stress and proposes that students regularly perform the exercises that were learned in class.

6 With each new meet of the Physical Education class, a small amount of time is spent on whether they are doing the exercises outside of school or in other subjects, which will be done over the course of an entire school year.

1 | STRETCHING



1] In a comfortable position, cross your legs and put one arm behind your head with the elbow bent. The opposite hand lightly pushes the elbow.

2] With one hand supported on the floor, place the other over the head and lightly pull until the neck bends towards the side. Do not forget to keep your spine straight.

3] Position one hand on the opposite knee and rotate your head and your torso. Use the hand behind you to support your body. All movements must be done on the opposite side as well.

2 | IYOGA



4) With four supports [hands and knees] on the floor, the hips and shoulders curve up to form an arch, bending the spine.

5) Still on the four supports, the hips and supports go downwards, forming another arch in the spine.

6) With both knees bent, placing one leg in front and the other one behind, place one hand on the floor and extend the other one above the head. This should be done by elongating the side of the body.

7) Butterfly position: the soles of the feet are touching and the knees are bent, which should touch the floor. The spine remains straight.

3 | MEDITATION AND RELAXATION



8] With closed eyes, get into this classic relaxation pose. With a straight spine, extend your neck. The body must be in a comfortable position.

9] With your hands in front of your torso and abdomen, pay attention to your breathing: where it is coming from and where it is concentrated.

10] This is a variation of the first position, with the legs crossed at the ankles. It is important to not hold on to any thoughts and keep a clear head.

EVALUATION

At each class, student participation is evaluated without grade. The kids are observed individually, as each has their body experience formed by their social insertion, their bodily experiences. The research done by the groups is also analyzed, as well as the creativity and appropriateness of their anti-stress exercise series. There is the possibility of a theoretical evaluation with attribution, in which the themes and theories that underlie the series of exercises can be addressed, as well as topics related to stress and its consequences in the body.

RESULTS

Many students reported informally using relaxation techniques before exams and in challenging classroom situations. Others began to experience the practice on a regular and constant basis. The last group adhered to breathing techniques in times of tension. The possibility of touching the other and understanding the limits of oneself and the other and their bodily and affective possibilities also promoted a noticeable improvement in relationships between the kids.

LEARN MORE

- BASTOS, Sohaku R.C. **O Livro do Shiatsu**. Editora Ground, 1982. Rio de Janeiro



Seven relaxation techniques in 60 seconds
[<http://bit.ly/2NiF4nF>]



WHAT IS IT o shiatsu
[<http://bit.ly/2PLZ049>]



Pranayama: Breathing Techniques
[<http://bit.ly/32fRDV7>]



7 relaxation exercises to ward off anxiety
[<http://bit.ly/32yoAxQ>]



Relaxation techniques for anxiety
[<http://bit.ly/2NLIzth>]



Shiatsu: the power of the human touch
[<http://bit.ly/2re1Swl>]



Pranayamas - Yoga breathing
[<http://bit.ly/36D880o>]



AUTHORS



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AGNES D'ALEGRIA

I am a Philosophy teacher and I am interested in art and culture, African and indigenous philosophies. I have taught high school in the state network of Rio de Janeiro since 2010, I was a teacher at the Federal Center for Technological Education - CEFET/Maracanã. I prepared teacher training material from the Center for Youth and Adult Education, for the Science Center and the Distance Higher Education of the State of Rio de Janeiro [Cecierj Foundation]. I am a fan of horror movies and fantasy literature and would like to have Cthulhu by the writer HP Lovecraft as a pet. And I like rock music!



ANDERSON SILVA

Passionate about computing, video games and education. Master in Computer Science in the field of Artificial Intelligence from Universidade Federal de Pernambuco - UFPE and a degree in Computer Science from the Universidade Federal Rural de Pernambuco - UFRPE. I am coordinator at the Cícero Dias State Technical School/NAVE Recife and I am a professor at Faculdade Estácio de Sá - FIR in Recife. I have worked on more than 50 digital game projects and guiding coursework on Information Systems. I am engaged in Internet of Things/ IoT projects and research in computing and education.



ANDRÉ OLIVEIRA

I have a degree in Internet Systems from Centro Universitário de João Pessoa (Unipê), where I learned and acquired a taste for game development and education. I have been studying games since 2013 and currently work as a Qualification Consultant at the Recife Center for Advanced Studies and Systems - Cesar. I worked as a teacher at the Cícero Dias Technical High School/NAVE Recife, where I taught subjects about game development. In addition to games, watching "geek culture" series and movies such as science fiction and superheroes are my favorite pastimes.



ANDREA PIRATININGA

Biology Teacher and graduated with a master's degree in Botany from the Federal University of Rio de Janeiro - UFRJ. I am passionate about issues related to food, full enjoyment of food, health and the human body. I am also interested in researching and reflecting on topics such as the environment, recycling and ecological imbalance. In addition to all the tasks, I am the mother of a pair of teenagers who make me think daily about the world and love working with crafts in fabric, paper and wood, always trying to recycle and make the best use of materials.



CARLOS BURGOS

I am a postgraduate student in Interaction Design for Digital Artifacts at Cesar College and graduated in Design with emphasis in digital artifacts development at Universidade Federal de Pernambuco - UFPE. I have worked as a 3D artist for 10 years, having developed electronic models, 3D assets for applications and still images for major construction companies in the national scene. I currently teach classes focused on the 3D production of games and applications at Cícero Dias Technical High School/NAVE Recife.



CARLOS TELES

I have been a history teacher in public schools in the state of Rio de Janeiro since 1998. I see history everywhere and in every gesture. I believe in helping every student who crosses my path to build historical awareness, which is more important than teaching “names and facts.” This is my daily challenge in teaching. I celebrate the advances, I have patience during the setbacks, I live the joys and frustrations of those who dare to do differently. Among some specializations I did in this course, I highlight the Specialization Course in Technological Education from Cefet/RJ. This training allowed me to work for a period as a Technology Advisor and later to be part of the group of teachers of the José Leite Lopes State High School/NAVE Rio.



CECILIA OLIVEIRA

I have a degree in History from UFRJ and a Master's student in the Postgraduate Program in Education (PROPED) of UERJ. I am currently studying the process of building democracy in the school space from the experience of student occupation, which took place from April to May 2016. I work as an educator in private schools and the state network of Rio de Janeiro since 2010. I walk on the street listening to music, I have had all of the Brazilian pies in Rio de Janeiro, I wake up at dawn to read romance novels and I like to think about art.



DANIEL MARTINS

I am a ludologist and educational designer. I have a master's degree in Design at Cesar School and a postgraduate degree in Strategic Design from Escola Superior de Propaganda e Marketing - ESPM. I am a self-taught game designer and I have been working for over five years assisting in the creation of game development courses. I coordinate the multimedia course at Cícero Dias Technical High School/NAVE Recife and manage my own companies: D+1 Design e Jogos, where I advise and produce ludic experiences for educational purposes, and DMand Game Studio, where I develop analog games for entertainment.



DANIELLE NATHALIA GOMES DA SILVA

I am passionate about education and innovation; I have been teaching since 2011 at the Technical Course of Middle Level Programming for Digital Games at Cícero Dias Technical High School/NAVE Recife. I have a degree in Computing at UFRPE, I have a Master's in Artificial Intelligence from UFPE and I currently doing a postgraduate degree in IoT (Internet of Things) at CESAR School. I have been working with game and application development for a few years and am interested in researching methodological practices, innovation and learning in various contexts.



EDUARDO AROUCHA

I am an educator specialized in School Physical Education with training from UFPE and UPE. The enthusiasm and involvement of the students in the proposed activities is a great incentive for me. I have been teaching for 36 years, and I am currently working on projects such as a school chess club and forming a sports, volleyball or futsal team.



ELIZABETH CALDAS

Cinema has always been present in my construction and development. I have a habit of quoting phrases and movie scenes to explain much of what I feel. Since 2008, I have worked in writing scripts, studies, research and projects related to Brazilian audiovisual. I am an associate researcher of Grupo de Pesquisa em Educação e Mídia –PUCRio Group since 2014 and I teach audiovisual production workshops to students from public schools. At José Leite Lopes State High School/NAVE Rio, I was a Screenwriting Creation and Multimedia Interfaces teacher.



ERIKA PESSÔA

I am an educator of vocation and desire, a scientist of curiosity and training, a photographer and seamstress of “snooping” and joy. I have four years of experience in the classroom, three years in public school coordination and have worked as a developer, systems analyst and educational technology analyst. I find myself in a process of “unschooling,” relearning to live up to what I believe in all walks of life.



FLÁVIA CAVALCANTI

I have been an educator since I was 14 years old, I have worked in the Pernambuco state network for 10 years and I was a teacher at Cícero Dias Technical High School/NAVE Recife, where I worked for four years. I have a postgraduate degree in Methods and Technologies in Portuguese Language Teaching and also studied Liberal Arts. I like movies, music and I'm interested in all kinds of cultural manifestation. Since 2016, I have been monitoring 3rd year classes and striving to innovate with the textual production work.



HENRIQUE ALMEIDA

Art director, typographer, teacher and coordinator of the Multimedia course, with an extensive career leading editorial design projects, in places such as the newspaper O GLOBO and Editora Rocco. I have experience in art editing, design and education, focusing on process innovation and methodologies. I have a degree in Fine Arts from the School of Fine Arts, and Publishing from the School of Communication, both from UFRJ, with a specialization in Art Direction from ESPM RJ. I like to design letters and I ended up specializing in peculiar alphabets: I am developing, in my Master's, a specific typography for those with visual impairment.



HUGO MAGNATA

My specialization is in the ludic methodology, I have been a licensed chemistry and physics teacher for over 10 years. I was a student who had learning difficulties from a young age, and it was using my imagination that I began to understand the contents taught at school at that time. When I got to high school, I used the method to understand physics and chemistry. I am a teacher at Cícero Dias Technical High School/NAVE Recife and I use this personal experience to create and explore new possibilities for teaching and learning along with the students.



ISABEL BLANC

I have a Teaching Degree from Universidade Federal do Rio de Janeiro and I have taught Physical Education classes in the state of Rio de Janeiro since 2009. I have been working for seven years as a teacher at José Leite Lopes State High School/NAVE Rio. Since the school has no sports court, it enables me to propose different activities and bodily experiences and encourages me to innovate. I am a mother of a 6-year-old girl; I seek to connect my motherhood learning with the experience of being an educator. I also seek to establish a horizontal relationship with students and strengthen my bonds with them on a daily basis.



JOÃO BOSCO

Ever since my childhood, I was always curious to understand how things worked and I liked to explain the little I knew to my brothers and friends. My destiny was already set, it was linked to science and teaching. At just a little of 20 years old, I completed my degree in Physics at Física na Universidade Federal Rural de Pernambuco - UFRPE and started teaching in private schools. A few years later, I joined the Pernambuco state school system. Currently, I am in the professional master's degree in Physics Teaching/SBF program at UFRPE, where I also specialized in Teaching Physics.



JOSÉ AUGUSTO MENDES

I teach the Digital Games Programming course at José Leite Lopes State High School/NAVE Rio and I am a qualification consultant at the company Cesar. I have a master's degree in Computer Science, Education and Society from Universidade Federal do Rio de Janeiro - UFRJ and graduated in Digital Games from Universidade Estácio de Sá. I have experience in various programming languages, game development and application development. My hobby is playing video games, but I also enjoy playing the guitar and doing physical activities.



JOSÉ GILBERTO DA SILVA

I have been an educator in the state of Pernambuco for 26 years and a philosophy teacher at Cícero Dias Technical High School/NAVE Recife since it was founded. I have a Master's degree in Philosophy from Universidade Federal de Pernambuco - UFPE and I am specialized in Teaching Human Sciences, and I always have a Social Sciences background. What has always motivated me to be a teacher is the challenge of discovering myself. I am not tied to labels regarding my practice. I like movies, books, the beach and traveling.



JULIANE TRAVASSOS

My background is in Cinema - Audiovisual Production and Multimedia - Design for Digital Games. I am a former student of Cícero Dias Technical High School/ NAVE Recife and I am very grateful to have had the opportunity to go through various experiences, from student and intern to coordinating the School's Media Education Area. All of these phases were essential for my personal and professional growth. From each project I participated in, there are lessons that I will carry with me throughout life.



KLENIE RAMOS

I am a specialist in Applied Linguistics for Teaching the English Language and graduated with a Teaching Degree - Portuguese / English. I have been working in the public school system for 28 years, 20 of which I dedicated exclusively to teaching the English language. I am a pioneer in the Pernambuco State Full-Time School Project, created in 2003 at the Pernambucano Gymnasium. I am currently a teacher at the Cícero Dias State Technical School/NAVE Recife, following the same concepts as Interdisciplinary and Integrating Education.



LUIZ FRANCISCO ALVES DE ARAUJO

I am enthusiastic about transformation and development through education, a field in which I have been working since 2009. I coordinate two Interaction Design Specialization courses for Digital Artifacts, both from CESAR School. I have a degree in Design from UFPE and a Master's in Design from the same institution in the area of digital artifacts and bring in my professional background, an experience of over 18 years in the graphic and advertising market. My field of study involves design methodologies and creative processes.



MARIZA HERMES DO CARMOS

I am passionate about education and delighted with student learning. I have a Teaching Degree in Mathematics from Fundação de Ensino Superior de Olinda (FUNESO) and a postgraduate in Mathematical Education from FAINTVISA. I have participated in writing books about the subject and in events of the Brazilian Society of Mathematical Education. I believe that innovation is the basis of a good education.



MARTA FRANCESCUTTI

I am enchanted by the nature and human diversity on our planet, which is why I became a geographer. I have a master's degree, bachelor's degree and degree in Geography. For 37 years, I have been a teacher in the area, teaching at state schools in Rio de Janeiro and at José Leite Lopes State High School/NAVE Rio. Teaching is what I enjoy doing most in life and that is what keeps me studying and updated. Lately, I've been interested in researching how the human brain works and how it is used in learning.



MATHEUS LESSA

I am a Game Programming teacher. As part of the RING collective of game developers from Rio de Janeiro, I co-founded BitCake Studio, which is an independent game developer such as Holodrive. I have a degree in Computer Science from UFRJ and I am an advisor to the Game Development Study Group - GDP, made up of Computer Science students from this University.



MÔNICA D'ALMENERY

Specialist in Basic Education Teaching in the Portuguese Language Subject at PRD - Pedro II and in Portuguese Expression Literatures at Ucam. Acting as a Portuguese Language teacher at José Leite Lopes State High School/NAVE Rio and Francisco Campos State High School - Seeduc/ RJ. Experienced with students who have learning disabilities and multiple disabilities. I participate in the works Colheita de uvas: crônicas, Pera, Uva, Maçã - Salada Mista and Guia de Práticas Pedagógicas Inovadoras Oi Futuro. I adapted board games for teaching Brazilian Literature to students with ASD and ADHD.



PATRÍCIA LIMA

I have been an educator in the state of Pernambuco for 12 years, with a teaching degree and specialization in teaching history, both from UFRPE. I like manga and anime and I believe this interest brings me closer to the students. It was because of them, even, that I was curious to start reading and following this kind of cultural manifestation. I work, above all, for a more supportive and ethical society.



PATRÍCIA OLIVEIRA

I have postgraduate studies in Linguistics and Portuguese Teaching from Universidade Federal de Pernambuco - UFPE. I have worked as a Portuguese Language teacher for over 11 years in the Pernambuco State Department of Education. I teach Portuguese, mainly at Cícero Dias Technical High School/NAVE Recife. I am very curious about and adept at new technologies and love to create innovative educational practices. I also have a great passion for developing interactive assignments in the classroom.



RENATA BARCELLOS

I have post-doctorates in Portuguese and I am a postdoctoral student in Brazilian Literature at Universidade Federal do Rio de Janeiro - UFRJ. I am a school teacher at Rio's public schools and UniCarioca. Associated with Círculo Fluminense de Estudos Filológicos e Linguísticos - Cifefil, member of Academia de Letras e Artes de Paranapuã - Alap- Alap, the Brazilian Union of Writers - UBE and Associação de Jornalistas e Escritoras do Brasil - Ajeb/RJ. I like arts in general, writing, interacting with students, researching and creating new pedagogical proposals for teaching Portuguese.



ROAN SARAIVA

I am enthusiastic about transforming the lives of kids through education. My background is in Digital Visual Arts and I am interested in creating meaningful projects for students. I was coordinator of the Media Education Space at Cícero Dias Technical High School/NAVE Recife and I currently support the school's management and monitoring processes. I enjoy the days of work as leisure, and travel, which is my passion, I seek to return with elements that can be incorporated into my practice.



ROSÂNGELA MENDONÇA

I am, above all, in love with education. I seek methodologies that encourage youth leadership, always trying to instigate the creativity of students. I have a degree in Liberal Arts and a postgraduate in Communication Management.



SANDRO MENEZES

I am a cartoonist, graphic artist, screenwriter and teacher, graduated in Design from Escola de Belas Artes da Universidade Federal do Rio de Janeiro - UFRJ. For eight years, I have been working as a manager and also as a Design, Illustration, Animation and Audiovisual teacher in schools and public projects of inclusive education. I compulsively scribble all day, drawing students and staff on any piece of paper. As a Marvel fan, I don't miss the opportunity to repeat Spider-Man's motto to the kids: "With great power, comes great responsibility."



SARAH NERY

I started studying Communications in 1996, when the internet was not yet part of everyday life. At Journalism school (turn of the century and millennium: 1998-2002) I went from pager and fax to cell phone and e-mail. In the master's degree in Communication and Culture (2005-2007, Universidade Federal do Rio de Janeiro - ECO / UFRJ) and the doctorate in Education (2011-2015, Universidade do Estado do Rio de Janeiro - Proped/Uerj), the challenges became the ocean of information provoked by digital technologies. In this interface between media and education, I continue learning and unlearning the world, life and living beings.



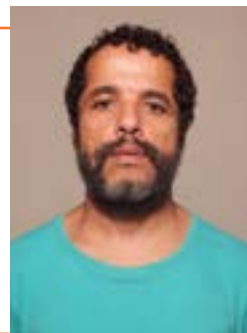
SÔNIA HORN

I am a PhD student in Linguistics at UERJ. I have worked as an English teacher since 1990. Up until 2007, I worked in the private school system and since 2008 I have taught in public school. In 2010, I became an English teacher at José Leite Lopes State High School/NAVE Rio. I believe that teaching and learning the English Language in a public school can be of quality. I find it very important to keep up-to-date, do research in the field of language and teaching English. I love my family, my cats, crafts and traveling.



TIAGO DARDEAU

I have a Master's in Education from Universidade do Estado do Rio de Janeiro - UERJ and I am a pedagogue. I often say that I never left school, because in the first period of college I was already interning. That was 20 years ago. Since 2010, I have coordinated the technical course for Digital Media Screenwriting at José Leite Lopes State High School/NAVE Rio. I am pleased to coordinate teams, proud of being born in Salvador and I am passionate about Brazilian culture and cuisine. One day I will live in the countryside, but I will never leave the city.



WINSTON SACRAMENTO

I am a pedagogue, I graduated from UERJ and I have a master's in Brazilian Education from PUC-Rio. I work as a Digital Media Screenwriting course teacher at José Leite Lopes State High School/NAVE Rio since 2009, where I have also coordinated the Department of Media Education - MDE. I am from Rio de Janeiro, a Vasco soccer fan, I like the beach, cycling and Brazilian Pop Music. I wish I had time for activities like horticulture and gardening.





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