WONDER
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Wonder Learning for Digital Natives

Educational Best Practices Booklet

A Wonder-Inspired Pedagogical Vision

Co-funded by the European Union

Project no. 2024-1-PT01-KA220-SCH-000254381

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ISBN 978-608-67060-1-2

Co-funded by the European Union

Project no. 2024-1-PT01-KA220-SCH-000254381

Project	**Wonder Learning for Digital Natives**
Project Nº	**2024-1-PT01-KA220-SCH-000254381**
Work Package	Nº2 – Gathering Good Practices on Innovative Teaching Methods
Date	29/07/2025
Type of Document	Version 1
Language	English

Co-funded by the European Union

Project no. 2024-1-PT01-KA220-SCH-000254381

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Publisher

Institute for Applied Research for Business
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CIP - Каталогизација во публикација
Национална и универзитетска библиотека "Св. Климент Охридски", Скопје

37.02:004.7/.9.032.6(036)

WONDER Learning for Digital Natives [Електронски извор] ; Educational Best Practices Booklet : a wonder-inspired pedagogical vision / [António Pimenta, ...[и др.] ; editors António Pimenta, Maria Olga Grecu]. - Skopje : Institute for Applied Research for Business, 2025

Начин на пристапување
(URL): https://iarb.edu.mk/publications/booklets-and-guides/educational-best-practices-booklet (Слободен пристап). - Текст во PDF формат, содржи 154 стр., илустр. – Наслов преземен од екранот. - Опис на изворот на ден 01.08.2025. - Останати автори: Doina Feher, Maria Olga Grecu, Traiana Mioriţa Olea, Nausica Larisa Maria, Corina Delia Rusz, Mariana Daniela, Blanka Tacer, Muamer Tinjak, Raquel Lombardi, Ramune Jukneliene, Aneta Vasiljevikj-Shikaleska, Biljana Gjozinska, Adrijana Bulevska Zarikj, Turgut Aydin. - Библиографија: стр. 151-152. - Финансиер: Co-funded by the European Union, Project no. 2024-1-PT01-KA220-SCH-000254381, Wonder Learning for Digital Natives

ISBN 978-608-67060-1-2

1. Pimenta, António [автор] [уредник] 2. Grecu, Maria Olga [автор] [уредник] 3. Feher, Doina [автор] 4. Olea, Traiana Mioriţa [автор] 5. Nausica, Larisa Maria [автор] 6. Rusz, Corina Delia [автор] 7. Daniela, Mariana [автор] 8. Tacer, Blanka [автор] 9. Tinjak, Muamer [автор] 10. Lombardi, Raquel [автор] 11. Jukneliene, Ramune [автор] 12. Vasiljevikj-Shikaleska, Aneta [автор] 13. Gjozinska, Biljana [автор] 14. Bulevska Zarikj, Adrijana [автор] 15. Aydin, Turgut [автор]
а) Методика на наставата -- Образование -- Примена -- Дигитални алатки -- Практични примери -- Прирачници

COBISS.MK-ID 66533637

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1. Introductory Note

In an era marked by rapid and profound technological transformations, education is compelled to reinvent itself in order to respond effectively to the needs of a new generation of learners — the so-called digital natives. These students grow up immersed in digital environments, where information is ubiquitous, interaction is constant, and new ways of communicating, thinking, and learning emerge continuously. This reality demands a shift from traditional educational models — often based on passive knowledge transmission — towards more dynamic, inclusive, collaborative, and digitally mediated pedagogical approaches.

The **Wonder Learning for Digital Natives** project (no. 2024-1-PT01-KA220-SCH-000254381), co-funded by the European Union under the Erasmus+ programme and coordinated by Escola B1/PE do Monte (Madeira, Portugal), responds to this challenge. It brings together partners from seven European countries (Portugal, Romania, Austria, Bosnia and Herzegovina, Lithuania, North Macedonia, and Türkiye), united by a shared mission: to promote innovative, inclusive, and digitally empowered teaching practices. Aligned with the EU's horizontal priorities — digital transformation, inclusion and diversity, and environmental sustainability — the project aims to modernise educational practices by empowering teachers and fostering engaging, equitable, and future-oriented learning environments.

This **Booklet of Educational Best Practices** represents a key intellectual output of the project. It brings together **34 innovative pedagogical practices**, carefully selected and implemented across diverse educational settings in Europe. These practices, grounded in principles of active learning, digital integration, accessibility, and pedagogical differentiation, are considered suitable within the WL approach due to the WOW! Moments they generate and their alignment with its core principles. As such, they offer creative and meaningful ways to bring the spirit of Wonder Learning into real-world educational contexts. They are designed to:

- Spark students' interest and motivation through interactive and student-centred methodologies;
- Develop essential digital competencies in both teachers and learners, fostering critical and participatory digital literacy;
- Promote inclusive education by addressing the needs of all students, including those with special educational needs (SEN) or from disadvantaged backgrounds;
- Encourage the integration of digital tools and innovative methods in daily teaching practice;
- Cultivate environmental awareness in the school context by combining technology with sustainability.

This booklet is the result of a collaborative and transnational action-research process in which project partners designed, tested, validated, and refined educational practices suitable with the **Wonder Learning approach** — an approach that places wonder at the heart of meaningful learning. The European dimension of the initiative enriches the project with cultural and methodological diversity, reflecting both the particularities of national education systems and the shared challenges of contemporary schooling.

Beyond serving as a repository of replicable practices, this document aims to be a tool for reflection and inspiration for all education professionals committed to quality, innovation, and inclusion. Its purpose is not prescriptive, but formative: to foster the critical and creative appropriation of the practices presented, encouraging their adaptation to the specific realities of each school, classroom, or educational community.

We therefore invite all educators, teachers, trainers, researchers, and policymakers to (re)imagine their teaching and learning practices in light of contemporary challenges, guided by a pedagogy of curiosity, inquiry, and discovery. May this booklet be, for all, a starting point for new practices and new perspectives on education in the 21st century.

2. Theoretical and Conceptual Framework

Objectives of the Booklet of Educational Best Practices

The Educational Best Practices booklet, developed within the framework of the European project Wonder Learning for Digital Natives (2024-1-PT01-KA220-SCH-000254381), constitutes a strategic pedagogical and conceptual instrument. Its purpose is to respond to the educational demands arising from the profound transformations triggered by the digital age, guiding the reconfiguration of educational practices in light of contemporary epistemological paradigms.

Grounded in the theoretical foundations of constructivism (Piaget, 1972), sociocultural learning theories (Vygotsky, 1978), and the principles of Universal Design for Learning – UDL (CAST, 2018), the booklet proposes a robust framework for teacher development and institutional transformation. Its objectives are multidimensional, integrating pedagogical, technological, ethical, and ecological dimensions that define 21st-century teaching and learning.

Importantly, the booklet also draws upon the philosophical insights of Catherine L'Ecuyer and her work *The Wonder Approach* (2016), which argues that wonder is the origin of all learning. L'Ecuyer advocates for an education that respects the child's inner world, favors silence over overstimulation, and prioritizes meaningful, attentive encounters with reality. This humanistic perspective enriches the booklet's vision by grounding innovation and inclusion in a pedagogy of presence, contemplation, and curiosity.

Specific Objectives:

- Foster pedagogical innovation;
- Promote evidence-based, learner-centered practices tailored to digital natives, moving beyond traditional, transmissive models toward co-constructive and active learning (Piaget; Freire);
- Enhance digital competence;
- Strengthen teachers' and students' critical and creative use of digital tools, following the DigCompEdu framework and the TPACK model (Mishra & Koehler);
- Advance inclusive education;
- Support equitable practices that address diverse learning needs, aligned with the UNESCO 2030 Agenda and inclusive education principles (Ainscow);
- Stimulate motivation and engagement;
- Apply interactive, multimodal strategies that awaken curiosity and emotional connection to learning - a "pedagogy of wonder" (Egan);
- Promote 21st-century competencies;
- Encourage collaboration, interdisciplinarity, and skills like creativity, critical thinking, and digital citizenship (Trilling & Fadel);
- Integrate environmental awareness;
- Connect digital learning with sustainability, fostering eco-responsible educational practices aligned with the UN's Sustainable Development Goals;
- Support teacher professional development;
- Offer a flexible pedagogical framework that promotes reflective, collaborative, and innovative teaching (Schön);
- Strengthen european educational culture;
- Encourage intercultural dialogue and the cross-border exchange of scalable, proven teaching practices.

In summary, the booklet seeks not merely to inform educational practice, but to transform it critically and contextually. By integrating established educational theories with The Wonder Approach's emphasis on attentiveness, mystery, and interiority, it offers a coherent vision of digital, inclusive, and future-oriented pedagogy. It aspires to empower educators to foster not only competent, but also curious, ethical, and wonder-filled learners, capable of thriving in a complex and interconnected world.

This framework integrates contemporary policy, classical and modern educational theory, and the humanistic insights of The Wonder Approach. Together, they form a coherent and innovative foundation for rethinking teaching and learning in the digital era — not only more competent, but also more attentive, inclusive, and meaningful.

3. Principles of Educational Best Practices

The *Wonder Learning Approach* proposes a transformative vision of education grounded in curiosity, student agency, and interdisciplinary exploration. Rooted in the belief that learning begins with wonder (L'Ecuyer, 2016), the principles of Educational Best Practices in this booklet are designed to promote equity, engagement, and excellence through inclusive, flexible, and participatory methodologies. These principles guide the selection and implementation of innovative teaching practices within the framework of 21st-century learning and European educational priorities.

Inclusion and Equity

Equity is not simply access - it is the affirmation of diversity and the removal of barriers that prevent full participation. Inspired by the *Universal Design for Learning* (CAST, 2018) and the inclusive education frameworks of UNESCO and the European Pillar of Social Rights, this principle calls for the adaptation of learning environments to respond to varied linguistic, cultural, cognitive, and socio-economic contexts. Every learner, regardless of background or ability, must feel seen, valued, and supported.

Pedagogical Differentiation and Flexibility

Differentiated instruction is central to personalized learning. Grounded in constructivist theory (Piaget, 1972) and sociocultural learning (Vygotsky, 1978), this principle supports the use of adaptive methodologies and diverse formats of content delivery. The Wonder Learning phases - from Anticipation to Propagation - require educators to be responsive to the evolving questions, interests, and developmental stages of their students. Flexibility is key to sustaining attention, engagement, and depth of inquiry.

Formative and Authentic Assessment

Assessment must reflect real learning, not just content reproduction. The booklet advocates for formative and authentic assessment, where learners are evaluated through projects, collaborative outputs, reflective journals, portfolios, and peer feedback. This approach values process over product, and aligns with the Wonder Learning emphasis on student-led discovery, investigation, and public sharing (e.g., Phase 5 – Propagation). It also supports motivation and metacognitive growth.

Collaboration and Co-Teaching

Learning is social. Based on Vygotskian principles of mediation and interaction, the booklet endorses collaborative learning environments and encourages co-teaching models where educators share expertise and responsibility. Students engage in joint tasks, peer inquiry, and group problem-solving, fostering not only academic knowledge but also essential soft skills such as communication, empathy, and cooperation.

Autonomy and Citizenship

Aligned with the European Key Competences for Lifelong Learning (2018), the principle of autonomy emphasizes empowering students to take responsibility for their learning. The Wonder Learning model places students at the center, giving them space to formulate questions, design inquiries, and reflect on outcomes. This cultivates critical thinking, self-regulation, and active citizenship - educating not only skilled individuals but also thoughtful contributors to society.

Respect for Cultural, Linguistic, and Socio-Economic Diversity

The booklet recognizes that schools are plural spaces. Following the intercultural educational principles of the EU and UNESCO, this approach promotes respect for multiple identities, languages, and perspectives. Through inclusive storytelling, global themes, and collaborative dialogue, learners are encouraged to appreciate cultural differences and co-construct shared meanings. The Wonder Learning methodology enhances this by encouraging interdisciplinary and context-sensitive exploration.

These principles reflect a coherent integration of pedagogical theory, policy frameworks, and the Wonder Learning philosophy. They not only ensure quality and innovation in practice but also foster a learning culture where curiosity, dignity, and inclusion are fundamental. They served as a basis for selecting, implementing, and scaling the best educational practices present in this booklet, which seek to be meaningful, transformative, and sustainable.

4. Domains of Pedagogical Practice

The pedagogical domains outlined below reflect the core educational dimensions of the Wonder Learning for Digital Natives project and are articulated through the thematic areas emerging from the selected best practices. Each domain integrates the principles of active learning, inclusion, and student engagement, while also reflecting concrete applications in STEM, ICT, Foreign Languages, Art, Social Studies, Sustainability, Health & Wellbeing, and SEN education.

4.1. Learning Environment and Classroom Climate

Creating an emotionally safe, inclusive, and inspiring learning space is foundational to all themes. In STEM and ICT-based activities, this involves designing digital platforms and makerspaces that encourage exploration and safe experimentation (e.g., coding with Scratch or Minecraft Education). In Art and Health & Wellbeing, classroom climate is cultivated through aesthetic care, emotional literacy circles, and mindfulness practices.

For SEN learners, inclusive environments rely on multisensory adaptations, visual supports, and predictable routines that promote security and engagement. Digital tools like Padlet, ClassDojo, or Kahoot are used to stimulate participation while maintaining a positive and accessible climate.

4.2. Pedagogical Methodologies

Active methodologies are central across all themes:

- **In STEM,** project-based approaches such as engineering challenges or science fairs allow students to apply theoretical knowledge in practical contexts.
- **In Foreign Languages,** gamification (e.g., Escape Rooms or digital storytelling) is used to increase vocabulary retention and oral expression.
- **In Art,** students co-create murals, animations, or performative pieces, often linked to identity and emotions.
- **Social Studies practices** like the Student Parliament simulate civic processes and historical inquiry.
- **In Sustainability,** methodologies are inquiry-based and interdisciplinary, such as designing eco-friendly solutions or school gardens.
- **For SEN,** differentiated instruction and multimodal strategies (visual, kinesthetic, auditory) ensure full participation.
- **In ICT**, methodologies focus on creativity, collaboration, and problem-solving through student-driven projects like coding, robotics, and digital storytelling.

4.3. Assessment and Feedback

Assessment is understood as a formative and developmental process. In STEM or ICT, rubrics and digital portfolios document individual learning paths. In Foreign Languages, audio recordings and peer feedback support self-monitoring of progress. In Sustainability or Health practices, evaluation focuses on real-world impact, such as behavior change or collaborative problem-solving.
For SEN students, alternative and differentiated assessment formats - pictograms, simplified rubrics, oral reflections - are implemented to guarantee accessibility and self-expression. Across all themes, tools such as learning journals, reflective check-ins, and teacher-student dialogues enrich feedback and personal growth.

4.4. Collaborative Practices and Co-Teaching

Collaboration is embedded in all themes:

- **STEM teams** work on problem-solving missions or build prototypes.
- **ICT practices** involve co-creation of multimedia content or coding in pairs.
- **Language and Art practices** often involve joint performances, exhibitions, or international exchanges (e.g., eTwinning).
- **Social Studies and Sustainability** emphasize intergenerational and community collaboration, involving local actors and families.
- **In Health & Wellbeing,** co-teaching between generalists and specialists supports a whole-child approach.
- **For SEN,** co-teaching models allow for individualized support within inclusive classrooms, enhancing equity and participation.

These collaborative frameworks reflect Vygotsky's social learning theory, promoting learning as a shared, dialogic, and relational process.

4.5. Education for Values and Global Citizenship

Global citizenship education is especially visible in practices related to:

- **Sustainability:** students explore climate change, recycling, and responsible consumption.
- **Social Studies:** civic education projects simulate democratic participation and human rights advocacy.
- **Foreign Languages and Art** open intercultural dialogues through narratives, music, or cultural exchange projects.
- **Health & Wellbeing practices** focus on empathy, respect, and the promotion of mental health.

In all themes, students are encouraged to act as ethical, reflective, and engaged citizens, aligned with the European Key Competences and UNESCO Education for Sustainable Development goals.
This domain also reinforces digital responsibility in ICT activities - addressing issues like privacy, screen time, and media literacy.

These five pedagogical domains are not separate silos but interconnected strands of an educational model grounded in the Wonder Learning philosophy. Whether in STEM or Languages, in Art or Sustainability, every theme becomes a vehicle for awakening curiosity and affirming diversity. The best practices presented in the booklet demonstrate how these principles materialize through creative, inclusive, and transferable methodologies, making learning not only more innovative - but more human.

4.6. Digital Transformation and Digital Pedagogy

Digital transformation is a core dimension of the Wonder Learning approach. Across all thematic areas, the purposeful use of digital tools - such as collaborative platforms (e.g., Padlet, Canva, Google Workspace), educational software and immersive technologies (e.g., VR/AR) - expands the possibilities for inclusive, engaging, and student-centred learning. Practices foster not only technical proficiency but also critical digital literacy, media awareness, and ethical use of technology. Digital pedagogy within this framework prioritises meaningful integration of ICT, balancing screen time with authentic experiences, and ensuring accessibility for all learners, including those with special educational needs (SEN). This domain also addresses digital citizenship, cybersecurity, and responsible digital behaviour, essential for preparing students to participate actively and safely in today's digital society.

5. EDUCATIONAL BEST PRACTICES

Wonder Walls

Description:

Wonder Walls are interactive classroom boards where students post questions, express curiosity, and visualize their ideas on a topic. These walls can be physical (whiteboards, posters) or digital (Padlet, Google Jamboard, Trello).

The purpose of a Wonder Wall is to engage students in inquiry-based learning by allowing them to post questions about a topic and collaborate on finding answers throughout the lesson or project. This method is particularly useful in the Anticipation phase of the Wonder Learning approach, as it stimulates curiosity and independent exploration.

The WOW! Moment

The moment of surprise and excitement happens when students see a big question, mysterious image, or an intriguing statement on the Wonder Wall. It makes them curious and eager to explore the topic further.

Keywords

Curiosity-driven learning; Inquiry-based education; interactive learning; Student engagement, Collaboration.

Development of the Activity

Introducing the Topic

The teacher presents an open-ended question, an intriguing image, or a puzzling statement related to the lesson.
Example: "What would happen if there was no gravity?" or "Why do birds fly in a V formation?".
Students are asked to brainstorm initial thoughts and post their questions on the Wonder Wall.

The WOW! Moment

The teacher introduces a mystery element—a short video, an experiment, or a dramatic story related to the topic.
Example: A slow-motion video of astronauts floating in space, making students wonder about gravity.
Students react with curiosity and excitement, prompting them to ask deeper questions.

Exploration Activity

Students choose one or more questions from the Wonder Wall to investigate.
They use books, online research, discussions, or hands-on experiments to explore the topic.
Example: Groups research different effects of gravity and conduct an experiment by dropping objects from different heights.

Presentation of the Results

Students organize their findings and create a visual or verbal presentation.
Example: They use drawings, digital slides, short videos, or skits to explain their discoveries.
They post their final answers on the Wonder Wall and discuss how their understanding evolved.

Conclusion

The teacher leads a reflection session, encouraging students to connect what they learned to real-life situations.
Example: “How does understanding gravity help engineers design airplanes?”
Students self-assess their progress by discussing what they found most surprising.



Benefits for Students

- Encourages curiosity and independent inquiry;
- Promotes active participation in the learning process;
- Helps develop critical thinking and problem-solving skills;
- Fosters collaboration and teamwork.

Benefits for Teachers

- Provides insight into student interests for lesson customization;
- Facilitates classroom discussions and collaboration;
- Can be used across multiple subjects and education levels;
- Supports student-led learning.

Innovation in this Practice

- Uses interactive tools (both physical and digital) to enhance student engagement;
- Encourages student-driven learning by allowing them to set their own inquiry path;
- Can be customized to any subject – from science to literature.

Problems Solved with this Good Practice

- Lack of student engagement in lessons;
- Over-reliance on passive learning (memorization);
- Limited student interaction and discussion.

Resources links:

🔗 Wonderopolis – Wonder Wall in Practice
🔗 Padlet – Digital Wonder Wall

Creating a QR Code for Students with Dyslexia

Description:

This practice aims to use QR Codes as an inclusive tool for students with dyslexia. By linking support materials (such as audios, videos or texts) to QR Codes, students have access to interactive and multimodal content that facilitates the learning process, meeting their specific needs.

The technology allows students to access information in a more accessible way, respecting their pace and learning style.

The WOW! Moment

Allow students to create their own QR Codes by associating them with content that helps them with their learning, such as audios, videos or even images with complementary visual information.

Monitor the process and celebrate achievements when students manage to scan the code and access the content independently.
Offer positive reinforcement to increase motivation.

Keywords

Dyslexia; QR Code; Digital inclusion; Assistive technology.

Development of the Activity

Introducing the Topic

Start the activity by introducing the concept of the QR Code and how it can be used to access content such as audio, video and text.
Explain how the use of QR Codes can help students with dyslexia access content more effectively, as well as improve or overcome their difficulties.
Demonstrate the creation of a QR Code and show practical examples of how it can be used in education.

The WOW! Moment

Allow students to create their own QR Codes by associating them with content that helps them with their learning, such as audios, videos or even images with complementary visual information.
Monitor the process and celebrate achievements when they manage to scan the code and access the content independently.
Offer positive reinforcement to increase motivation.

Exploration Activity

Ask students to explore the QR Codes created in class. They can access audio reading materials, video explanations or other interactive resources.
Encourage them to interact with different types of media (spoken text, videos with subtitles, etc.), allowing them to choose the format that best suits their needs.
Give students space to experiment with creating their own QR Codes, linking content of their choice.

Presentation of the Results

Ask students to present their QR Codes to the class, explaining how they used them to learn certain content.
Encourage peer feedback so that they share their experiences of using the codes and discuss the positive impact the tool has had on their learning.

Conclusion

Recap how QR Codes have facilitated access to information in an interactive and multimodal way, helping to reduce the difficulties associated with dyslexia.
Discuss how the practice can be applied to other areas of learning, such as maths, science or history.



Benefits for Students

- Facilitates access to content in a multimodal way, catering for the learning style of students with dyslexia;
- Promotes student autonomy and engagement by allowing them to choose how they access information;
- Reduces cognitive overload by offering interactive content with different forms of presentation (text, audio, video).

Benefits for Teachers

- Provides a creative way of adapting content for students with dyslexia;
- Encourages the use of technology to personalise teaching and promote inclusion.

Innovation in this Practice

- Use of QR Code as an accessible tool for students with dyslexia, facilitating access to multimodal educational materials as well as assessment sheets;
- Integrating technology as an inclusive solution, allowing students to develop self-learning skills and autonomy.

Problems Solved with this Good Practice

- Reading and comprehension difficulties associated with dyslexia, by enabling access to alternative content (audio, video);
- Barriers to student engagement and learning, promoting more dynamic and accessible learning.

Resources links:

QR Code Generator

Using the Online Sign Language Translator for the Inclusion of Deaf and Hearing Difficulties

Description:

This practice aims to use online sign language translators to promote inclusive communication, especially for students who are deaf or have hearing difficulties. Through this tool, students can easily translate actions into sign language in various languages, raising awareness about this topic among all students and creating a fun and interactive class environment.

The WOW! Moment

Allow students to experiment with the online sign language translator, translating sentences or words into signs autonomously after guided practice.
When students are able to translate and understand the content independently, as well as attempt to mimic the signs, reinforce their work with motivating words.
Show students the immediate impact of the tool on communication, how they were able to understand or express themselves better using sign language.

Keywords
Sign language; Online sign language translator; Inclusive education; Visual communication.

Development of the Activity

Introducing the Topic

Start the activity by explaining the concept of sign language and how it is an important communication tool for deaf people. Perform one or two signs and ask the students to reproduce them.

Example: "Good morning!" "Good afternoon!" "Good evening!"

Present the online sign language translator, demonstrating how it works and how it can be used to translate written text into signs.
Explain how this tool can be useful in the classroom, promoting the inclusion of deaf students and creating a more collaborative environment.

The WOW! Moment

Allow students to experiment with the online sign language translator, translating sentences or words into signs autonomously after guided practice.
When students are able to translate and understand the content independently, as well as attempt to mimic the signs, reinforce their work with motivating words.
Show students the immediate impact of the tool on communication, how they were able to understand or express themselves better using sign language.

Exploration Activity

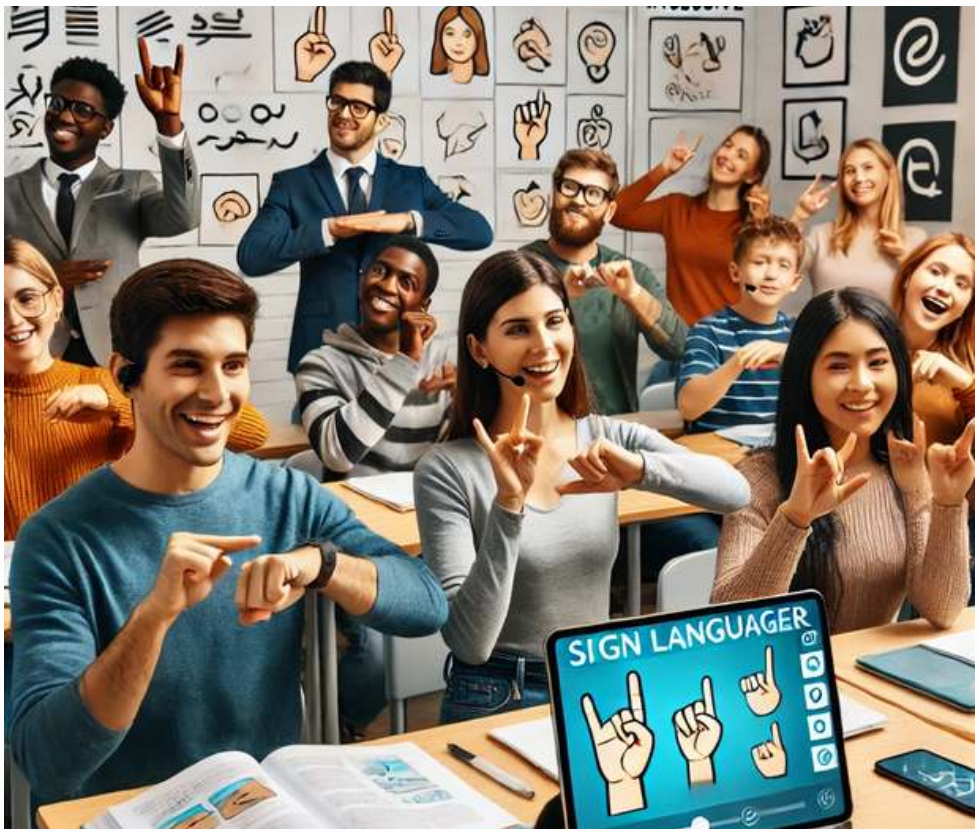
Involve students in practical activities where they must use the translator to create sentences or questions in sign language.
Create groups of 2 or more and ask them to communicate with each other by mimicking the signs using the online translator.

Presentation of the Results

Ask students to present the signs and sentences they translated to the class. They can demonstrate the translated words or have short conversations using sign language.
Encourage interaction between deaf and hearing students, promoting an inclusive environment where everyone can learn and communicate through signs.
Hold a group discussion, allowing students to share their experiences with the online translator and how it helped with their understanding and communication.

Conclusion

Recap the benefits of using the sign language translator, highlighting how it promotes inclusion and facilitates communication for all.
Encourage students to apply what they've learned by using the translator in their daily routines or other communication situations.
Offer support materials such as basic sign guides or links to additional resources for learning sign language.



Benefits for Students

- Communication: Bridges gaps between deaf and hearing students;
- Accessibility: Makes expression and understanding easier for deaf students;
- Autonomy: Encourages independent communication via tech;
- Engagement: Makes learning more interactive and hands-on.

Benefits for Teachers

- Inclusion: Helps integrate deaf students with ease;
- Teaching tool: Useful for teaching sign language and empathy;
- Communication support: Improves feedback and instruction.

Innovation in this Practice

- Technology Use: Promotes sign language inclusion through online tools;
- Multimodal Learning: Combines visual and digital formats;
- Social Inclusion: Encourages interaction and acceptance.

Problems Solved with this Good Practice

- Communication Barriers: Translates content for better understanding;
- Lack of Sign Language Knowledge: Educates both students and teachers;
- Access Inequality: Ensures deaf students can fully participate.

Resources links:

Translator language Sign:

https://www.spreadthesign.com/pt.pt/search/

Stop Motion Project

Description:

In this creative project, students work in groups to design and produce short stop-motion animations using materials like clay, paper, or everyday objects. Through storyboarding, character creation, and filming with simple digital tools, they learn how to turn static images into dynamic visual stories. The activity promotes collaboration, creativity, digital literacy, and narrative skills in an engaging and hands-on way.

The WOW! Moment

When the teacher demonstrates how a simple sequence of static images can be transformed into a dynamic animation. Students watch with fascination as still frames spring to life on screen, turning ordinary drawings or objects into a flowing, captivating motion.



Keywords

Stop motion; Animation; Digital skills; Storytelling, Teamwork.

Development of the Activity

Introducing the Topic

Explain the basics of stop motion, showing examples of professional and amateur stop-motion films to inspire students.

The WOW! Moment

When the teacher demonstrates how a simple sequence of static images can be transformed into a dynamic animation. Students watch with fascination as still frames spring to life on screen, turning ordinary drawings or objects into a flowing, captivating motion.

Exploration Activity

Students form groups, develop scripts and storyboards, design characters, and film their stop-motion scenes using simple tools like smartphones or tablets.

Presentation of the Results

Host a mini film festival where all animations are screened for classmates and teachers.

Conclusion

Reflect on the challenges and lessons learned from the creative process, emphasizing teamwork, patience, and planning.

Benefits for students

- Develops technological and storytelling skills;
- Enhances teamwork and planning abilities;
- Stimulates creativity and problem-solving.

Benefits for teachers

- Integrates technology into teaching in an engaging way;
- Encourages interdisciplinary learning across arts and digital skills;
- Boosts student enthusiasm for creative projects.

Innovation in this practice

- Bringing animation techniques into the classroom connects traditional artistic expression with modern digital tools, encouraging new ways of storytelling.

Problems solved with this good practice

- Lack of engagement in traditional arts education;
- Limited opportunities to combine technology and creativity in learning.

Resources links:

Stop Motion Studio - App for creating animations
National Film Board of Canada - Stop Motion Guide
Storyboard That - Tool for creating storyboards
What Is Stop Motion Animation and How Does It Work? | Mashable Explains

Explorers of Green Energy – Robots in the Service of Sustainability

Description:

Students explore sustainable solutions for a virtual green community using simple robots (Bee Bot or Makey Makey) to learn about green energy sources and how these can be implemented. The activity combines robotics technology with creativity and collaboration to solve STEM challenges.

The WOW! Moment

"The Energy Robot"

The teacher demonstrates how a programmed Bee Bot robot can "travel" through a wind farm or a solar panel system to "collect" the energy produced. This moment introduces the lesson's theme and captures students' attention.

Keywords

Educational robots; Bee Bot programming; Makey Makey; Renewable energy; Sustainability; Innovation; Environment.

Development of the Activity

Introducing the Topic

The teacher asks the question: "How can we build a green community powered by robots and renewable energy?"

- Students are divided into thematic groups, each exploring a green energy source with the help of a simple robot:
- **Group 1:** Solar Squad – Bee Bot explores a solar panel network to "harvest" energy.
- **Group 2:** Wind Warriors – Makey Makey is used to simulate controlling a wind farm.
- **Group 3:** Hydro Heroes – Bee Bot travels a route simulating the flow of water and generating hydroelectric energy.
- **Group 4:** Geo Geniuses – Makey Makey is used to create an interactive schematic of geothermal energy capture

The WOW! Moment

The teacher demonstrates how a programmed Bee Bot robot can "travel" through a wind farm or a solar panel system to "collect" the energy produced.

Exploration Activity

Students use the robots and thematic materials to understand the assigned energy source.

- **Solar Squad:** Programming a Bee Bot to "navigate" between solar panels, collecting virtual energy.
- **Wind Warriors:** Creating an interactive circuit with Makey Makey that simulates the operation of a wind turbine.
- **Hydro Heroes:** Building a route for the Bee Bot to simulate the movement of water through a hydroelectric plant.
- **Geo Geniuses:** Developing a prototype with Makey Makey to show how thermal energy can be transformed into usable energy.

Each group creates a final product to contribute to the "Green Community."

Presentation of the Results

Each group presents their project, demonstrating how their robots explored the energy source and how it contributes to the green community.

Conclusions

Students discuss what they have learned about renewable energy and the role of robotics technology in implementing sustainable solutions. The teacher emphasizes the importance of technology and collaboration in solving global problems.



Benefits for Students

- Interactive learning through programming robots and using hands-on materials;
- Development of digital skills by using Makey Makey and Bee Bot;
- Solution-oriented thinking for environmental and sustainability problems;
- Promotion of collaboration and communication within teams;
- Practical exploration of STEM concepts and their real-life applications.

Benefits for Teachers

- Promoting innovation in teaching;
- Simplifying the teaching of difficult concepts;
- Development of teachers' digital skills;
- Facilitating an interdisciplinary approach;
- Real-time observable feedback;
- Promoting collaboration between teachers;
- Improving the teacher-student relationship.

Innovation in this Practice

- Using simple robots to learn complex concepts;
- Combining traditional technologies with the physical reality;
- Innovative interdisciplinary approach;
- Learning through play and collaboration;
- Introduction of accessible technologies for education;
- Connecting theoretical knowledge with practical applications.

Problems Solved with this Good Practice

- Difficulty in understanding abstract concepts;
- Difficulty learning through traditional methods;
- Isolation of STEM subjects;
- Lack of programming and logical thinking skills;
- Deficit in collaboration and teamwork;
- Lack of real impact on learning;
- Difficulty in stimulating critical and creative thinking.

Resources links:

Pactul verde european
Makey Makey
Bee Bot

Using the Online Braille Translator for the Inclusion of Blind Students

Description:

This practice centres on the use of an online Braille translator as an inclusive educational tool for pupils in the classroom to understand the Braille language and to understand people with blindness. By integrating technology into learning, students develop independence and acquire practical communication and educational skills.

The WOW! Moment

When students see their own text instantly transformed into Braille and then get to print or feel it. That hands-on experience - seeing their words take a new form and touching the raised dots - makes them feel curious, amazed, and connected to the world of people with visual impairments.

Keywords

Inclusion; Braille/Support technology; Accessibility.

Development of the Activity

Introducing the Topic

Start with a debate on the importance of Braille in promoting literacy and independence for people with blindness. If you have a blind student in the room, ask him or her to talk about Braille and how important it is.

Demonstrate how an online Braille translator works, showing its features and accessibility options.
Discuss real-world applications such as labelling objects or creating personalised Braille notes.

The WOW! Moment

When students see their own text instantly transformed into Braille and then get to print or feel it. That hands-on experience - seeing their words take a new form and touching the raised dots - makes them feel curious, amazed, and connected to the world of people with visual impairments.

Exploration Activity

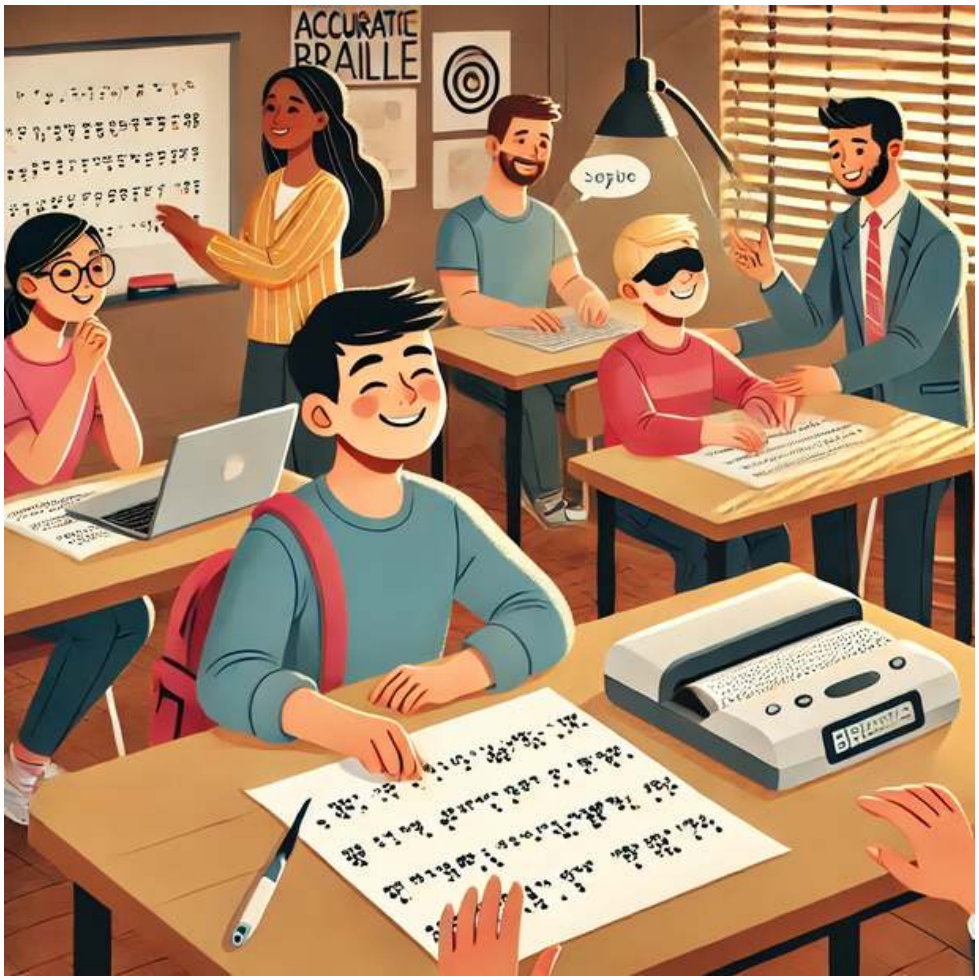
Assign tasks in which students create Braille labels, cards or short written texts using the online tool.
Encourage tactile exploration of the Braille results by writing down the pupils' names on paper using the typical Braille dots.

Presentation of the Results

Ask the students to present their Braille creations to the class, explaining the content and its purpose.
Encourage students to reflect on the experience of using the translator.

Conclusion

Recap the importance of Braille as a tool for inclusion and autonomy.
Emphasise how this skill can be applied in students‘ everyday lives, for example to label household objects or write students’ names in the classroom.
Provide additional resources, Braille stories and study visits to associations or institutions providing technical assistance to people with blindness.



Benefits for Students

- Raises awareness of blindness and Braille writing;
- Increased confidence through the successful use of assistive technology.

Benefits for Teachers

- Facilitates inclusive practices by integrating assistive technology into teaching practice;
- Encourages creative and practical teaching strategies;
- Strengthens the teacher-student relationship through personalised learning support.

Innovation in this Practice

- Utilises online tools to bridge accessibility gaps;
- Encourages a tactile and practical approach to learning Braille;
- Promotes inclusive collaboration between students with and without blindness.

Problems Solved with this Good Practice

- Provides an accessible and easy-to-use tool for Braille literacy;
- Increases inclusion and awareness in the classroom environment.

Resources links:

Tradutor Braille: Conversor e decodificador SYMBL

Videos how you use the braille machine
www.bing.com/videos/riverview/relatedvideo?q=Ferramentas+de+gravação+em+Braille+online&mid=D1C27449279213D8617CD1C27449279213D8617C&FORM=VIRE

Community Walks and Local Explorations

Description:

This method brings learning beyond the classroom by taking pupils on guided walks to explore local landmarks, historical sites, government buildings, or cultural spaces. It helps students connect with their community, understand local history, and develop a sense of place through real-world experiences.

For this method, maps, field journals, mobile apps like Google Maps or HistoryPin, and digital cameras will be used as tools for documenting observations and enhancing the learning experience.

The WOW! Moment

A thought-provoking stimulus is introduced, such as historical photos, old maps, or a guest speaker.
Example: Comparing past and present maps of the community.
Students react by making predictions and asking questions.

Keywords

Community engagement; Interactive exploration; Place-based Education; Experiential learning.

Development of the Activity

Introducing the Topic

The teacher explains the purpose of the walk and key observations.
The teacher plans the route, identifies landmarks, and prepares guiding questions.

The WOW! Moment

A thought-provoking stimulus is introduced, such as historical photos, old maps, or a guest speaker.
Example: Comparing past and present maps of the community.
Students react by making predictions and asking questions.

Exploration Activity

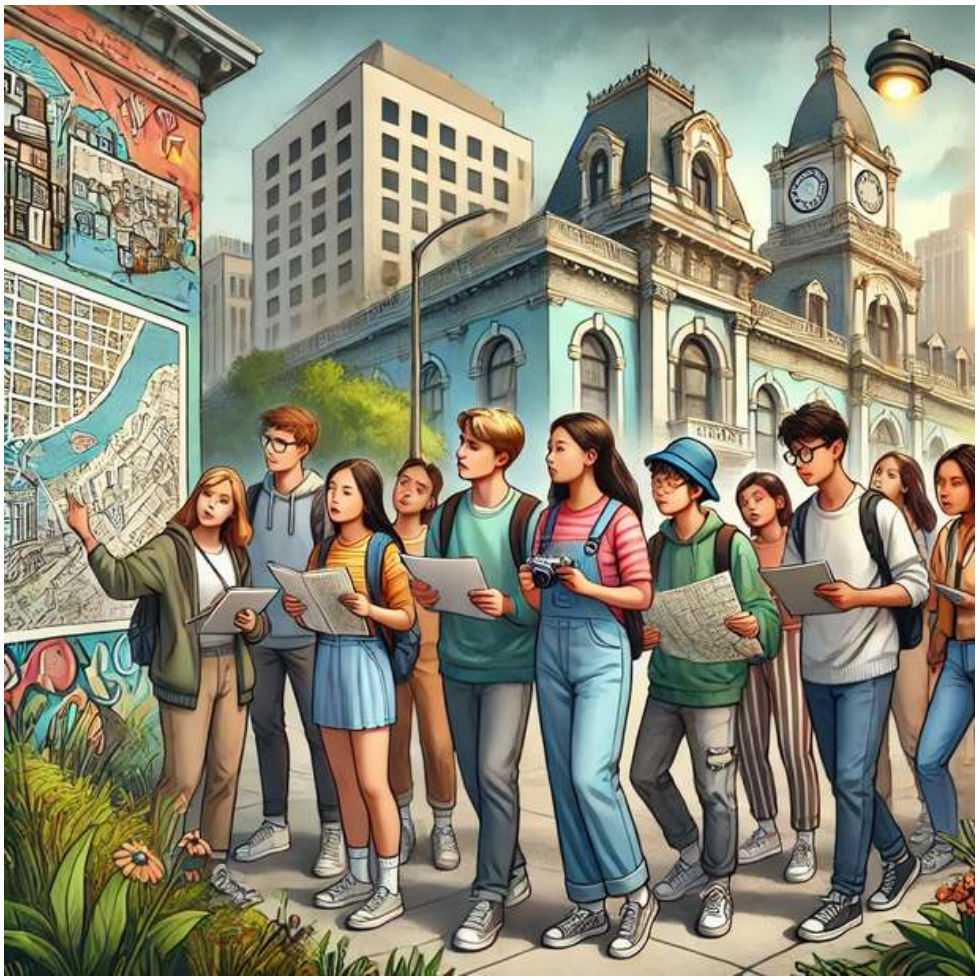
Students participate in a guided walk, documenting observations through notes, sketches, or photos.
Activities may include:
Observation - Identifying historical landmarks and their significance.
Community interviews - Speaking with local residents about changes in the area.
Environmental mapping - Noting how geography and urban planning shape the community

Presentation of the Results

Students present findings through posters, digital storytelling, or a reconstructed map.
The teacher facilitates discussions connecting observations to broader social studies themes.

Conclusion

Students reflect on their learning and discuss changes in their community.
Example: *How do historical events and cultural influences shape the identity of our community today?*
They share insights on how the walk changed their perspective on local history.



Benefits for Students

- Enhances critical thinking and observation skills by linking real-world experiences to social studies concepts;
- Fosters community awareness and historical appreciation through hands-on exploration.

Benefits for Teachers

- Provides an interactive and engaging way to teach social studies, making lessons more dynamic and relevant;
- Encourages experiential learning, helping students connect theory with real-world applications

Innovation in this Practice

- Integrates technology like mobile apps, AR maps, and digital storytelling to enhance exploration and documentation;
- Encourages active, student-led learning through real-world interactions, fostering deeper engagement and curiosity.

Problems Solved with this Good Practice

- Reduces student disengagement by making learning interactive and connected to real-world experiences;
- Encourages critical thinking and inquiry-based learning, helping students develop a deeper understanding of their community and history.

Resources links:

https://education.nationalgeographic.org/resource/take-a-wonder-walk/
https://www.expandedschools.org/exploring-futures-resource-hub/exposure-events/community-walk-resources/

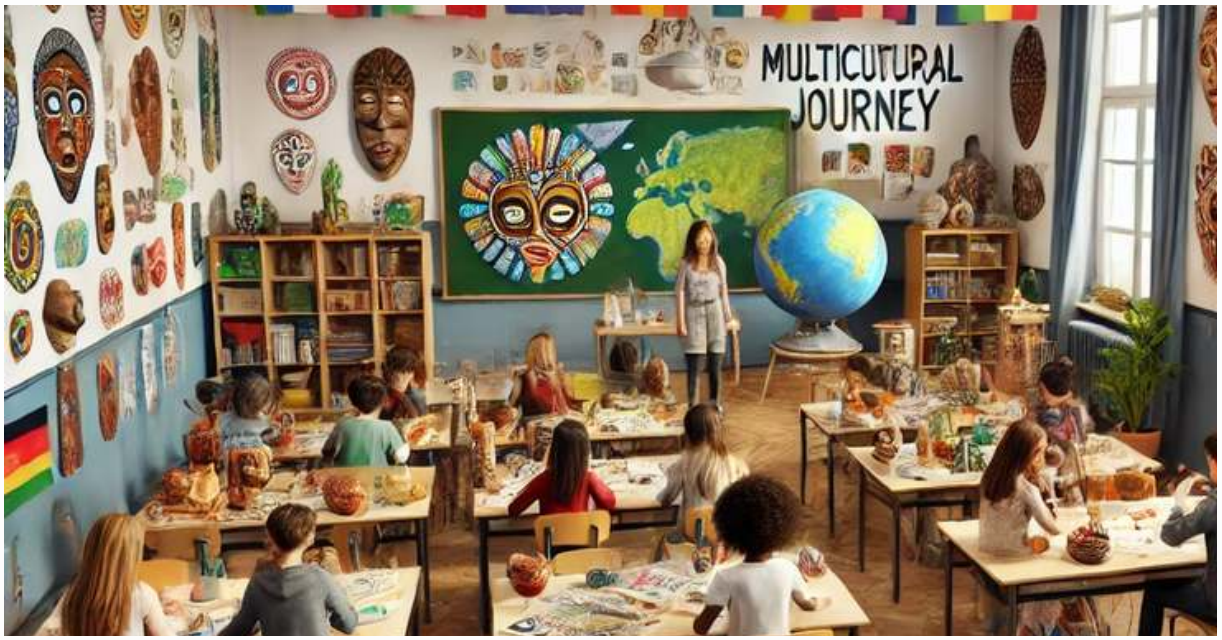
Multicultural Arts Journey

Description:

In this artistic journey, students explore diverse cultures through their traditional art forms—such as African masks, Indian mandalas, or Indigenous pottery. By researching and creating their own culturally inspired artworks, students develop global awareness, respect for diversity, and creative expression. The activity culminates in a cultural fair where students proudly present their work and the traditions behind it, fostering intercultural dialogue and appreciation.

The WOW! Moment

When students become immersed in the vibrant colours, intricate patterns, and symbolic meanings of cultural artworks—such as African masks, Indian mandalas, or Indigenous pottery—and feel inspired to create their own unique interpretations, connecting personally with global artistic traditions.



Keywords

Multicultural art; Cultural diversity; Global awareness; Creativity and tradition.

Development of the Activity

Introducing the Topic

Discuss cultural diversity and its importance, showing examples of art from around the world to highlight how culture shapes artistic expression.

The WOW! Moment

When students become immersed in the vibrant colours, intricate patterns, and symbolic meanings of cultural artworks—such as African masks, Indian mandalas, or Indigenous pottery—and feel inspired to create their own unique interpretations, connecting personally with global artistic traditions.

Exploration Activity

Students choose a culture to study, research its artistic traditions, and create a piece inspired by it using traditional or adapted techniques.

Presentation of the Results

Organize a cultural fair where students present their artworks and share insights about the cultures they explored, fostering intercultural dialogue.

Conclusion

Reflect on what was learned about different cultures and how art can be a powerful tool to promote understanding, respect, and appreciation for diversity.

Benefits for Students

- Broadens cultural horizons and global awareness:
- Encourages creativity and respect for diversity;
- Develops research and presentation skills.

Benefits for Teachers

- Facilitates interdisciplinary teaching across arts and social studies;
- Promotes inclusive and respectful classroom discussions;
- Encourages deeper student engagement with cultural topics.

Innovation in this Practice

- This activity combines artistic creativity with cultural exploration, fostering empathy and global citizenship.

Problems Solved with this Good Practice

- Limited exposure to cultural diversity in the curriculum;
- Challenges in engaging students with history and culture.

Resources links:

Smithsonian Learning Lab – Global Arts & Culture – Smithsonian Learning Lab
Curated collections and interactive resources on diverse artistic traditions.

Google Arts & Culture – Google Arts & Culture
Virtual museum tours and deep dives into global art forms.

The Kennedy Center ArtsEdge – Kennedy Center
Lesson plans and activities on multicultural arts and global traditions - The Kennedy Center ArtsEdge – Kennedy Center

The Met Museum – Explore World Cultures
Art lessons inspired by global cultures, featuring artifacts and techniques.
The Met Museum – Explore World Cultures – Met Museum

Digital Art Challenges

Description:

In this activity, students take part in digital art challenges by creating illustrations, posters, or visual designs using digital tools such as Canva, Procreate, or Adobe Creative Cloud. Guided by a theme or prompt, they explore modern artistic techniques, develop technical skills, and express their creativity through technology. The process culminates in the exhibition of their work in an online gallery or school showcase, promoting digital literacy and artistic innovation.

The WOW! Moment

When the teacher demonstrates how digital concepts can be brought to life using professional tools. As students watch simple ideas transform into vibrant digital creations right before their eyes, they are captivated by the possibilities. This eye-opening moment sparks excitement and motivation to explore and create on their own.



Keywords

Digital art; Creativity; Technology; Tecnnovation; Modern tools.

Development of the Activity

Introducing the Topic

Teachers introduce digital art tools and demonstrate their potential, encouraging students to explore creative possibilities through technology. Students brainstorm ideas guided by a specific theme or visual challenge.

The WOW! Moment

When the teacher demonstrates how digital concepts can be brought to life using professional tools. As students watch simple ideas transform into vibrant digital creations right before their eyes, they are captivated by the possibilities. This eye-opening moment sparks excitement and motivation to explore and create on their own.

Exploration Activity

Students work on their digital projects individually or in teams, experimenting with different tools, colors, techniques, and compositions to express their vision.

Presentation of the Results

The completed artworks are showcased in an online gallery or printed for a classroom exhibit.

Conclusion

A reflection session allows students to share their digital journey, discuss creative and technical challenges, and celebrate their achievements in blending art with innovation.

Benefits for Students

- Enhances digital literacy and creativity;
- Encourages innovation and exploration of modern tools;
- Prepares students for technology-driven creative careers.

Benefits for Teachers

- Integrates technology effectively into the curriculum;
- Provides flexible and innovative teaching strategies;
- Engages students with contemporary tools and mediums.

Innovation in this Practice

- Incorporates cutting-edge digital tools to expand artistic expression and make learning relevant to the digital age.

Problems Solved with this Good Practice

- Limited exposure to digital art and technology in traditional art classes;
- Lack of engagement with modern creative practices.

Resources links:

Canva – https://www.canva.com
A user-friendly platform for creating digital designs, posters, and illustrations.
Procreate – https://procreate.com
A powerful digital illustration app for iPad, widely used by artists and designers.
Adobe Creative Cloud – https://www.adobe.com/creativecloud.html
A suite of professional tools, including Photoshop and Illustrator, for digital art creation.
Krita – https://krita.org
A free and open-source painting program designed for concept artists, illustrators, and animators.

Nature Art Exploration

Description:

In this activity, students create artworks inspired by nature, using natural materials such as leaves, twigs, and stones, or creating drawings and paintings of landscapes and flora. This practice encourages creativity while fostering a connection with the natural world.

The WOW! Moment

When students explore outdoor spaces, experience the beauty of nature firsthand, and feel inspired by its textures, patterns, and colors to create their own art.



Keywords

Nature; Creativity; Mindfulness; Environmental education; Art.

Development of the Activity

Introducing the Topic

Teachers discuss the importance of nature in art and introduce examples of famous artworks inspired by nature.
Students are briefed on the activity and the materials they'll be using.

The WOW! Moment

Students explore outdoor spaces, experience the beauty of nature firsthand, and feel inspired by its textures, patterns, and colors to create their own art.

Exploration Activity

Students create artworks using natural materials such as leaves, stones, or twigs, or produce sketches and paintings based on natural scenery they observe during the activity.

Presentation of the Results

The finished artworks are displayed in a classroom gallery or presented during an open event for parents and peers, celebrating creativity rooted in nature.

Conclusion

A group discussion allows students to reflect on how nature influenced their artistic choices and deepened their connection to the environment through creative exploration.

Benefits for Students

- Combines outdoor education with art, refreshing the learning environment;
- Encourages eco-friendly practices in the classroom;
- Provides a hands-on and engaging teaching approach.

Benefits for Teachers

- Combines outdoor education with art, refreshing the learning environment;
- Encourages eco-friendly practices in the classroom;
- Provides a hands-on and engaging teaching approach.

Innovation in this Practice

- Blends art with environmental education, creating a holistic experience that connects students with the natural world.

Problems Solved with this Good Practice

- Lack of outdoor learning opportunities;
- Limited integration of environmental themes into creative education.

Resources links:

National Geographic Education – https://education.nationalgeographic.org
Offers educational resources on nature, ecosystems, and environmental awareness to inspire creative projects.

The Outdoor Classroom Project – https://outdoorclassroomproject.org
Provides guidance on integrating outdoor learning into education, including nature-based art activities.

Project Learning Tree – https://www.plt.org
A program offering activities and lesson plans focused on environmental education and outdoor creativity.
Children & Nature Network – Resources for Outdoor Learning – https://www.childrenandnature.org/
Provides materials and ideas for connecting children with nature through art and other creative activities.

SDG Heroes

Description:

The method of gamification has always been an option for creating interactive lessons, lessons highly appreciated by students. With the emergence of AI-based applications, an opportunity window opened that could not be overlooked in education.

A successful combination between these two methods is the game "Guardians of Tomorrow," where the main characters are 8 chatbots, each associated with a specific Sustainable Development Goal (SDG): SDG1, SDG2, SDG4, SDG7, SDG8, SDG13, SDG14, and SDG15. Their mission is to inspire students to become superheroes of positive change toward sustainable development. Students can converse with the bots, ask them questions, and receive guidance on the tasks they need to solve. T

he 8 bots are: Green Goddess, Carbon Crusader, Wisdom Warrior, Opportunity Oracle, Solar Sentinel, Marine Mave, Economight, and Earth Keeper. The game was created using AI tools and is suitable for education on sustainable development. Similarly, other games can be created on various specific STEM themes.

The WOW! Moment
Guardians of the Future

The meeting with the miracle happens when the 8 guardians appear with whom the students can interact via chat. They will be useful in the documentation stage for solving SDG related tasks.

Keywords

SDG; STEM; Sustainability; Guardian; Innovation; Gamification; Avatar; Chatbot.

Development of the Activity

Introducing the Topic

The teacher shows a short video about SDGs to the students. Then, the class is divided into 8 small groups, each responsible for working on one SDG corresponding to one of the avatars. The teacher informs students that they will receive help from some unusual specialists, sparking their curiosity.

The WOW! Moment

The teacher launches the game and introduces students to the game "The Guardians of Tomorrow" and the 8 "specialists," their mission, and how they will act.

Exploration Activity

Activity Each group will receive tasks related to a specific SDG. Students will engage in dialogue with the corresponding avatar and ask questions. In this way, they will obtain the necessary information to solve the assigned tasks. Example tasks: calculating their personal carbon footprint using an online carbon footprint calculator, determining the amount of energy produced by a solar panel park, water pollution indicators, charts of local temperature variations, etc. After completing the tasks, students will create a 2-3 minute video presenting the results.

Presentation of the Results

The materials will be viewed by the entire class.

Conclusions

Students will discuss the tasks they had, the results obtained, and the importance of sustainable development. They will receive digital badges as rewards for completing their tasks.



Benefits for Students

- Learn through preferred tools like games and apps, making learning fun and motivating;
- Stay focused and actively involved by asking questions and solving tasks;
- Interaction with bots builds curiosity and critical thinking;
- Understand SDGs and their real-world impact on society, the environment, and economy.

Benefits for Teachers

- Explore and apply innovative teaching methods;
- Use bots to monitor understanding and adapt instruction;
- Improve digital skills through tech-based activities;
- Easily integrate the activity into existing curriculum;
- Gather student feedback to better meet their needs.

Innovation in this Practice

- Games and bots make learning SDGs engaging and interactive;
- Personalized tasks with avatars increase curiosity and relevance;
- Strengthens digital skills and supports curriculum goals;
- Adapts to diverse learners for dynamic teaching;
- Enables real-time progress tracking and feedback.

Problems Solved with this Good Practice

- Boosts engagement and reduces learning barriers;
- Makes complex SDG topics hands-on and understandable;
- Links theory to real-life, improving retention;
- Provides instant feedback through ongoing bot interaction.

Resources links:

Website: https://www.sdgheroes.ai/
You Tube: https://www.youtube.com/watch?v=tKQYl_Ym9-M
Facebook: https://www.facebook.com/groups/875607580320562/user/1530501458

Green Decision-Making Challenge

Description:

A game-based activity where students aged 6-12 learn about sustainability and responsible decision-making by analyzing real-world environmental scenarios using the Green Cards from the Growing Green game.

The WOW! Moment

Show a surprising video or infographic revealing how everyday choices—like eating a burger, throwing away a t-shirt, or driving to school—impact the planet (e.g., carbon footprint calculators or short animations). Use this to spark a classroom debate or prediction game: “Which action is greener?”



Keywords

Curiosity-driven learning; Inquiry-based education; interactive learning; Student engagement; Collaboration.

Development of the Activity

Introducing the Topic

Introduce students to the concept of sustainability, circular economy, and responsible consumption through a short video or interactive discussion.

The WOW! Moment

Show a surprising video or infographic revealing how everyday choices—like eating a burger, throwing away a t-shirt, or driving to school—impact the planet (e.g., carbon footprint calculators or short animations). Use this to spark a classroom debate or prediction game: “Which action is greener?

Exploration Activity

Students play a digital or physical version of the Green Decision-Making Challenge using the Green Cards. They answer questions related to sustainable choices (e.g., transport, food, waste reduction) using Google Forms or an interactive quiz platform like Kahoot.

Presentation of the Results

Each student or team presents their decisions and justifies why they chose a particular answer. They can create an infographic using Canva or a short digital story on Flipgrid.

Conclusion

Reflect on how small daily choices impact the environment and explore actions they can take in their own lives. Students document their personal sustainability pledge using Seesaw or Padlet.

Benefits for Students

- Enhances critical thinking, environmental awareness, and decision-making skills.

Benefits for Teachers

- Provides an engaging and interactive way to teach sustainability concepts.

Innovation in this Practice

- Uses gamification and real-world scenarios to make learning about sustainability fun and relevant.

Problems Solved with this Good Practice

- Lack of awareness about sustainability, difficulty in applying concepts to real life.

Resources links:

https://growing-green.eu/results/ Take the GREEN cards from the Growing Green Game.

Everyone Can Read

Description:

This practice aims to make stories accessible to all students by using various formats, such as large print for students with low vision, tactile books in Braille for students who are blind, and pictograms for those who may benefit from visual aids. By providing these accessible formats, students will be able to experience stories in a way that meets their individual needs, fostering inclusion and helping to develop their reading skills. The activity encourages collaboration and empathy while enhancing the understanding of diverse communication methods.

The WOW! Moment

Allow students to explore the different formats and try reading a part of the story using Braille, large print, or pictograms.
As they successfully interact with these materials, praise them for their effort, reinforcing their sense of achievement and inclusion.
Emphasize how each format makes reading more accessible, and encourage students to share their thoughts on which format they found most helpful or enjoyable.

Keywords

Accessible reading; Inclusive education; Multi-acessive languages.

Development of the Activity

Introducing the Topic

Begin by introducing the concept of accessibility in reading materials. Explain how different formats like Braille, large print, and pictograms can help individuals with various abilities read and understand stories.
Present examples of stories in different formats (e.g., a book in Braille, a book with large print, and a book with pictograms).
Discuss the importance of providing accessible formats to ensure that everyone, regardless of their abilities, can enjoy reading.

The WOW! Moment

Allow students to explore the different formats and try reading a part of the story using Braille, large print, or pictograms.
As they successfully interact with these materials, praise them for their effort, reinforcing their sense of achievement and inclusion.
Emphasize how each format makes reading more accessible, and encourage students to share their thoughts on which format they found most helpful or enjoyable.

Exploration Activity

Divide students into small groups and provide each group with different types of accessible reading materials: Braille books, large print books, and books with pictograms.
Encourage them to read and discuss the story within their group. Students should explore the differences and similarities between these formats and share their experiences.
Involve students in creating their own accessible materials, such as drawing simple pictograms or crafting tactile elements that could be added to a story.

Presentation of the Results

Ask each group to present their findings, showing how they interacted with the different formats. They can share their thoughts on which format worked best for them and why.
Students can present their own accessible reading materials to the class, allowing everyone to appreciate the various ways stories can be made accessible.
Encourage students to give feedback to one another and engage in conversations about how different formats can help meet the needs of diverse readers.

Conclusion

Recap the importance of accessibility in reading and how different formats can help people with various needs.
Encourage students to consider how they can use accessible reading materials in their own lives and in future schoolwork.
Offer additional resources, such as guides on how to create accessible materials or websites where they can explore more about Braille, large print, and pictograms.
Conclude the session with a group discussion or a celebratory activity, like a round of applause for the creative contributions made by each group.



Benefits for Students

- Inclusion: Ensures equal access to reading materials for all;
- Autonomy: Lets students choose how to engage with stories;
- Cognitive Development: Shows how formats support learning;
- Social Skills: Promotes teamwork and interaction across abilities.

Benefits for Teachers

- Inclusive Teaching: Helps include all students equally;
- Resource Development: Serves as a model for future accessible content;
- Empathy & Awareness: Builds understanding of diverse student needs;
- Skill-Building: Improves ability to create and adapt accessible resources.

Innovation in this Practice

- Multi-format access: Uses Braille, large print, and pictograms;
- Student creation: Encourages students to make their own accessible materials;
- Fostering empathy: Promotes inclusive values and school culture.

Problems Solved with this Good Practice

- Exclusion: Includes visually impaired students in reading;

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- Awareness gaps: Teaches empathy and inclusion through experience;
- Resource limits: Offers in-class solutions where tools are lacking.

Resources links:

Ebook Multi inclusive format: https://www.madeira.gov.pt/dre/Estrutura/DRE/Areas/Recursos-Especializados-Especializados/Tecnologias-de-Apoio/E-books

Blended Learning for Language Learning

Description:

Blended learning is a dynamic and student-centered educational approach that combines traditional classroom experiences with online learning platforms like Google Classroom, Edmodo, and Kahoot!. This hybrid model promotes flexibility, autonomy, and collaboration. Students engage with language content through digital tools and apply what they learn in interactive classroom tasks. The practice integrates asynchronous and synchronous learning, supporting different learning styles and encouraging active participation.

The activity focuses on developing real-life communication skills in English, using tools students already interact with in their daily lives. It is suitable for secondary school students who are developing both digital literacy and communicative competence.

The WOW! Moment

At the very beginning of the activity, students receive a surprising and mysterious video message from a fictional character claiming to be from the future. The character, speaking partly in their native language and partly in English, asks for their help in solving a communication problem. This unexpected scenario creates curiosity and excitement, triggering students' intrinsic motivation to explore the English language and complete the mission.
The message ends with a playful challenge: "Learn how to introduce yourself. The future depends on it!"

Keywords
Blended learning; Interactive tools; Personalization; Flexibility; Gamification blended learning; Digital learning; Edmodo; Collaboration.

Development of the Activity

Introducing the Topic

The teacher uploads the “Message from the Future” video to Edmodo or Google Classroom. Students are asked to answer a few reflection questions and complete a matching exercise about key vocabulary (e.g., greetings, personal information).
They are then assigned to small “mission groups” and given individual roles (e.g., translator, questioner, responder).

The WOW! Moment

At the very beginning of the activity, students receive a surprising and mysterious video message from a fictional character claiming to be from the future. The character, speaking partly in their native language and partly in English, asks for their help in solving a communication problem. This unexpected scenario creates curiosity and excitement,triggering students’ intrinsic motivation to explore the English language and complete the mission.
The message ends with a playful challenge: “Learn how to introduce yourself. The future depends on it!”

Exploration Activity

Each group creates a short dialogue using given structures (e.g., “What’s your name?”, “Where are you from?”, “How old are you?”, “What do you like?”).
They use tools like Google Docs for writing and rehearsal. Some groups design avatars and use voice recording tools; others record short role-plays or animated presentations. Platforms like Voki, Animaker, or Flip are suggested.

Presentation of the Results

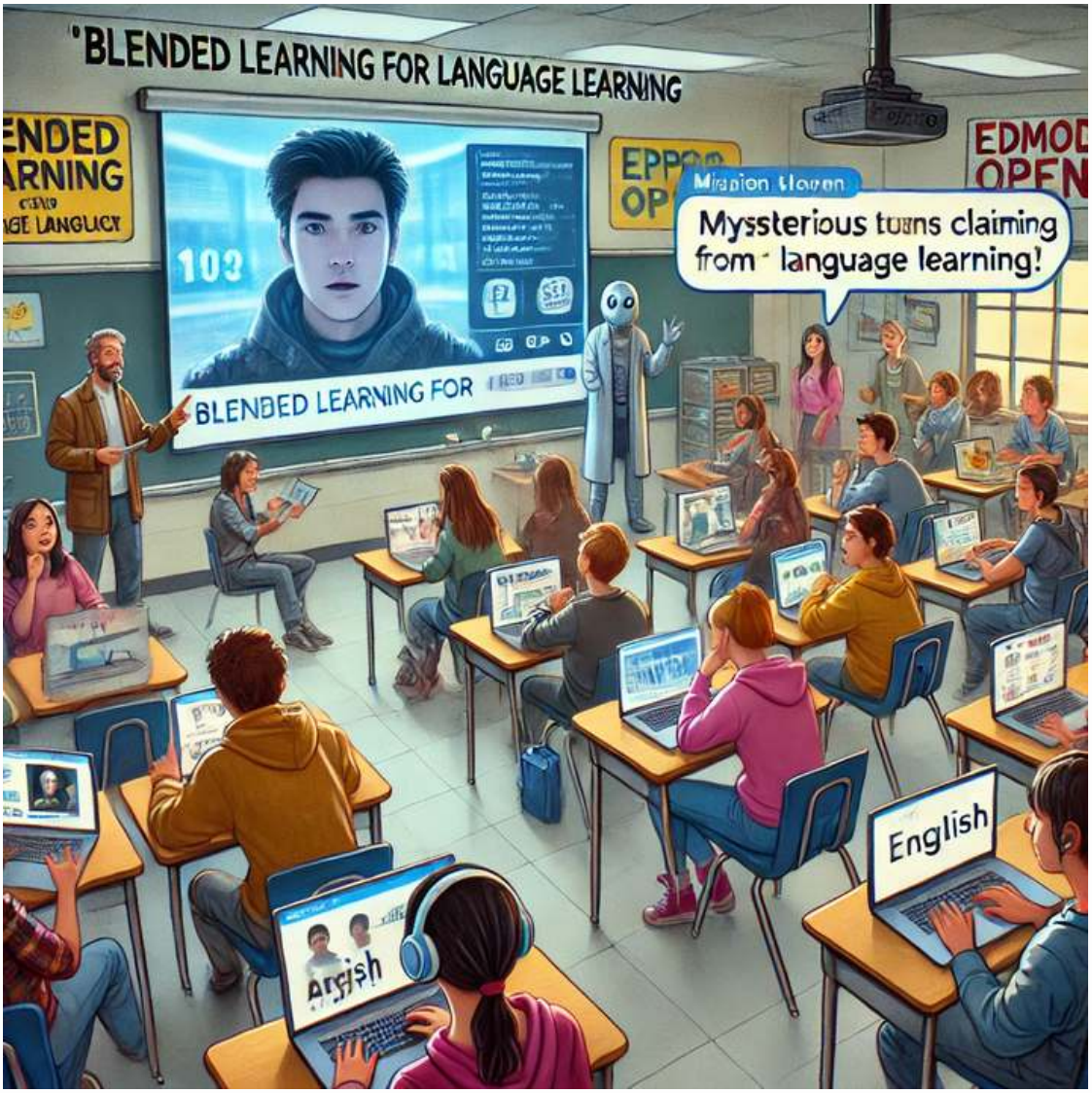
Groups present their final products – their video messages back to the character from the future. Each group explains what phrases they used and why.

All students participate in peer evaluation using a fun digital rubric via Google Forms.

Conclusion

The session ends with a short reflection discussion. Students are asked what surprised them, what they found challenging, and how they feel about using English to solve a task.

The teacher emphasizes the connection between digital communication and real-life language use.



Benefits for Students

- Enhances language learning through a combination of guided and autonomous tasks;
- Encourages responsible time management and digital literacy;
- Promotes collaboration and creativity;
- Offers continuous assessment and meaningful feedback;
- Supports differentiated instruction and personalized learning paths.

Benefits for Teachers

- Facilitates efficient monitoring of student progress;
- Reduces in-class time spent on instruction, allowing more time for practice;
- Streamlines resource distribution and feedback via platforms like Google Classroom;
- Increases student motivation and participation through gamified activities;
- Provides data to inform instructional planning and adapt materials.

Innovation in this Practice

- WOW Start: Story-based intro grabs attention and sparks curiosity;
- Blended Learning: Mix of online tools and group tasks boosts engagement;
- Narrative Grammar: Language taught through mission-based storytelling;
- Creative Tech Use: Students create videos, not just consume content.

Problems Solved with this Good Practice

- Reduces passive learning by involving students in interactive tasks;
- Solves time limitations in class by using digital pre-tasks;
- Addresses varied learning needs through flexible formats;
- Bridges gaps in student readiness and engagement levels.

Resources links:

- Edmodo
- Kahoot!
- Google Classroom
- https://l-www.voki.com/
- https://www.researchgate.net/publication/332732157_Blended_LearningEffectiveness_and_Application_in_Teaching_and_Learning_Foreign_Languages

Dream and Discover!

Description:

In this workshop, students will explore cultural diversity through active inquiry, reflection and creation. Each group will study a different culture, learn about customs, traditions, gastronomy and arts, and then create a project in which they imagine a day in the life of a child from that culture. They will present the projects in a creative way and discuss the lessons learned.

The WOW! Moment

To attract the attention and arouse the curiosity of the students, the teacher will start the lesson with an exciting moment: a "virtual trip" around the world. It will use an augmented reality app or 360° video to show students impressive images from different cultures.

Keywords

Cultural diversity; Empathy; Creativity; Active learning; Exploration; Intercultural understanding.

Development of the Activity

Introducing the Topic

After the "virtual trip", the teacher will introduce the topic of the lesson: "**Exploring cultural diversity**".
Students will be divided into groups and each group will choose a different culture to study (for example: Portugal, Turkey, Austria, Croatia, Romania, etc.).
The teacher will explain the task: each group must research the chosen culture and create a project in which they imagine: what a day in the life of a child from that culture would be like.

The WOW! Moment

To enhance the attention and arouse the curiosity of the students, the teacher will start the lesson with an exciting moment: a "virtual trip" around the world. It will use an AR or VR app or 360° video to show students impressive images from different cultures. For example:
Students can "visit" a traditional festival in Austria, Romania, Portugal, Turkey, etc., walking through the colourful streets and listening to the vibrant music.
This start will stimulate their imaginations and make them eager to learn more about the cultures of these countries.

Exploration Activity

Each group will receive resources (pictures, music, stories, symbolic objects) that illustrate important aspects of that culture.
Students will use the internet or materials provided by the teacher to find out more information about customs, traditions, gastronomy and important places in that culture.
They will discuss with each other and write down information that they think can help them better understand that culture.

"Dream and discover" - Creating the project

After the research, students will choose a creative form to express what they have learned (a journal, a letter, a video, a painting, or even a short skit).
For example, one group can write a diary in which a Turkish child narrates a day in his life, and another group can create a skit in which a Romanian child explains how he spends his time during a traditional festival.

Presentation of the Results

Each group will present the project to the class. In addition to the creative project, they will answer their peers' questions about the culture studied.
At the end, the teacher will hold a discussion about what the students have learned about cultural diversity and how we can better respect and understand cultural differences.

Conclusions

Students will discuss what surprised them about the cultures they studied and what they learned about human diversity.
The teacher will encourage students to reflect on how cultural diversity contributes to the richness of our world



Benefits for Students

- Developing empathy and understanding towards other cultures;
- Enrichment of knowledge about the traditions and customs of other peoples;
- Stimulating creativity through "imagine a life in a different culture" type of activity;
- Active and discovery learning;
- Promoting critical thinking by comparing and contrasting different cultures.

Benefits for Teachers

- The opportunity to stimulate students' creative and critical thinking;
- Creating an active and collaborative learning environment;
- The possibility to integrate several fields of education, such as history, geography and the arts;
- Reducing passivity in the classroom by encouraging students to be active and involved in the learning process.

Innovation in this Practice

- Combining theoretical learning with active and creative learning, by stimulating students' imagination;
- Using an interactive method that allows students to learn about a culture through direct and personal experience (not just theoretical information);
- Discovery learning, which involves an approach based on curiosity and personal reflection.

Problems Solved with this Good Practice

- Lack of understanding of cultural diversity and stereotypes;
- Limited involvement of students in the learning process;
- Absence of interactive methods that stimulates their creativity.

Resources links:

Educational resources for exploring cultural diversity. Creative projects for classrooms.

Resurse educaționale pentru explorarea diversității culturale

Proiecte creative pentru clase

Children's Rights

Description:

The activity begins with an interactive WOW moment that immediately captures the students' attention. The teacher will create a real courtroom atmosphere, turning the classroom into a "courtroom". It will use visual materials, such as video projections or symbolic images (eg images of children from different parts of the world facing violations of their rights), to introduce the theme of "Child Rights".

The WOW! Moment

The teacher will use dramatic music to heighten the moment and create a serious setting, which will put the students in the position of "defending the rights of the child".
In this opening moment, the teacher will explain a concrete "case" of a violation of a child's rights (for example, a child who cannot go to school because of poverty, or a child who suffers from physical abuse). Students will be invited to reflect on the case and then be divided into groups to 'investigate' and 'defend' the child's rights in a trial setting.
This emotional and engaging moment will stimulate students' curiosity and make the lesson more relevant and personal for them.

Keywords

Children's rights; Human rights education; Role-playing; Argumentation; Justice; Social responsibility.

Development of the Activity

Introducing the Topic

The teacher will introduce the theme "Child Rights" and explain the importance of protecting them globally.
The teacher will give a brief presentation of the UN Convention on the Rights of the Child, emphasizing the main rights of the child.
Students will be divided into groups and given the roles of "lawyer", "prosecutor" and "judge" for the trial to follow.
Each group will choose one right of the child to defend (for example, the right to education, the right to protection from abuse, the right to health, etc.).

The WOW! Moment

The teacher will use dramatic music to heighten the moment and create a serious setting, which will put the students in the position of "defending the rights of the child".
In this opening moment, the teacher will explain a concrete "case" of a violation of a child's rights (for example, a child who cannot go to school because of poverty, or a child who suffers from physical abuse). Students will be invited to reflect on the case and then be divided into groups to 'investigate' and 'defend' the child's rights in a trial setting.
This emotional and engaging moment will stimulate students' curiosity and make the lesson more relevant and personal for them.

Exploration Activity

Research and building the argument

Each group will research the right they are defending using resources provided by the teacher (texts, educational videos, articles).
The "lawyers" will build a solid case, based on concrete examples, to argue for the protection of that right.
The "prosecutors" will create a counter-argument to demonstrate how that right could be violated and the consequences it would have on the child.
The "judges" will study both the defense and prosecution arguments to prepare to deliberate at the end.

Preparing „ the trial”

At this stage, students will finalize the details of their trial.

Each group will prepare a **visual presentation** (poster, PowerPoint presentation, or collage) to support their arguments.

The "lawyers" and "prosecutors" will rehearse their speeches, while the "judges" will prepare questions to clarify weak points in the arguments.

Presentation of the Results

„ Children's rights trial”

The trial will take place in the classroom, set up to resemble a courtroom.

Each group will present their case, arguing for or against the protection of a child’s right.

"Lawyers" will defend the child’s right, while "prosecutors" will try to prove that the right is not being upheld.

"Judges" (the rest of the class) will ask questions and deliberate on the case.

At the end, "judges" will issue a verdict, determining whether the child’s right has been properly defended.

Conclusions

Reflection and discussion

After the trial, the teacher will guide a class discussion where students will reflect on the cases presented and the importance of protecting children’s rights.

Students will discuss what "children's rights" means to each of them and how they can contribute to protecting them in everyday life.

The teacher will encourage students to express their thoughts on how they can help children in other parts of the world who do not enjoy the same rights.



Benefits for Students

- Development of argumentation and presentation skills;
- Improvement in critical thinking and the ability to analyze and defend children's fundamental rights;
- Awareness of the importance of respecting children's rights globally;
- Enriching knowledge about children's fundamental rights, particularly by addressing a concrete case.

Benefits for Teachers

- Opportunity to promote human rights education in an active and participatory manner;
- Ability to integrate multiple subjects such as civics, international law, and ethics;
- Stimulation of critical thinking and debate within the class, offering a practical learning approach;
- Creation of a collaborative and stimulating learning environment for students.

Innovation in this Practice

- Role-play trial: Students learn about children's rights through simulated court cases;
- Interactive learning: Defending rights boosts critical thinking and responsibility;
- Skill development: Promotes research, argumentation, and public speaking;
- Engaging approach: Turns students into rights advocates through real-world scenarios.

Problems Solved with this Good Practice

- Low awareness: Builds understanding of children's rights;
- Lack of engagement: Uses active methods over passive learning;
- Justice education gap: Teaches justice and rights protection through experience;
- Theory only: Offers hands-on application of concepts;
- Weak critical thinking: Strengthens reasoning and argument skills.

Resources links:

https://www.teachfloor.com/elearning-glossary/role-play
https://experientiallearninginstitute.org/what-is-experiential-learning/

Genius Hour

Description:

Genius Hour allows students to dedicate one hour per week to exploring a passion project of their choice. This student-led initiative encourages curiosity, creativity, and independent learning. It is especially effective in the Propagation phase of Wonder Learning, as students take ownership of their learning by conducting research, developing projects, and presenting their findings.

The WOW! Moment

The teacher tells students: "Today, YOU are in charge of what you learn!"
Example: A video of students successfully inventing products or solving problems sparks excitement and inspiration.



Keywords

Passion projects; Student-driven learning; Independent research; Creativity; Project-based learning.

Development of the Activity

Introducing the Topic

The teacher explains the concept of Genius Hour and showcases student success stories.
Students brainstorm ideas for their projects.

The WOW! Moment

Students are shown real-world innovations that started from small ideas, such as a student who built a mobile app at age 12
.

Exploration Activity

Students plan and work independently on their chosen topics, researching, experimenting, or creating prototypes.

Presentation of the Results

Students showcase their final projects through posters, videos, or presentations.

Conclusion

Reflection: “What did I learn about my topic and myself?”

Benefits for Students

- Encourages self-directed learning;
- Fosters exploration of personal interests;
- Develops research, creativity, and presentation skills;
- Increases student ownership of learning.

Benefits for Teachers

- Creates a student-centered classroom;
- Allows personalized learning paths;
- Encourages deep, meaningful learning.

Innovation in this Practice

- Gives students autonomy over their education;
- Encourages deep learning and independent research;
- Connects learning to real-world applications.

Problems Solved with this Good Practice

- Standardized curricula that limit creativity;
- Low student motivation;
- Minimal student-led inquiry.

Resources links:

🔗 Genius Hour Guide
🔗 Passion Projects in Education

Practical Activities for Autonomy and Practical Life For Autistics Students

Description:

This activity supports autistic students in developing autonomy and daily life skills through structured, hands-on tasks like setting the table, folding clothes, or using cutlery. The teacher models each step using visual aids and routine charts, helping students understand and prepare for independent action. As students practise and complete tasks on their own, they receive positive reinforcement, boosting confidence and encouraging inclusion. The activity promotes independence, sensory engagement, and practical skill transfer to real-life contexts.

The WOW! Moment

When the teacher carefully demonstrates the task using clear visual supports and step-by-step modelling, showing students exactly how it's done — whether it's folding a towel, using a fork and knife, or preparing a snack. As students watch, often with intense focus and curiosity, they begin to visualise themselves doing it too. This moment of clarity and recognition — "I can do this" — marks the start of their journey toward autonomy and builds anticipation for their own hands-on attempt.

Keywords

Curiosity-driven learning; Inquiry-based education; interactive learning; Student engagement; Collaboration.

Development of the Activity

Introducing of the Topic

Start with a brief discussion or visual demonstration about the importance of autonomy and practical skills in everyday life.
Use examples of routines that can be related to a daily routine.

The WOW! Moment

When the teacher carefully demonstrates the task using clear visual supports and step-by-step modelling, showing students exactly how it's done — whether it's folding a towel, using a fork and knife, or preparing a snack. As students watch, often with intense focus and curiosity, they begin to visualise themselves doing it too. This moment of clarity and recognition — "I can do this" — marks the start of their journey toward autonomy and builds anticipation for their own hands-on attempt.

Exploration Activity

Involve pupils in activities such as setting up to help put things on the table, preparing a small snack, folding laundry or creating their own routine chart.

Explore in the activity images, textures and spaces for them to draw or record (examples: visual calendars, written checklists and real objects for tactile learning)

Presentation of the Results

Get students to present their completed task, either by demonstrating their skills in front of the group or by showing photos/videos of their process.
Encourage peer feedback to promote communication and socialisation.

Conclusion

Discuss how the skills practised can be used at home or in other environments, and encourage students to replicate these tasks in their daily routine.
Offer support materials such as posters, visual guides or personalised checklists.
End the activity with a celebratory gesture, such as a group round of applause or a small relaxation activity, getting students excited about future practice.



Benefits for Students

- Development of autonomy and practical life skills, fostering greater independence in daily activities;
- Increased self-confidence through successful task completion;
- Improved social interaction and communication skills during collaborative and feedback activities;
- Sensory engagement and cognitive stimulation through tactile, visual, and hands-on activities.

Benefits for Teachers

- Provides a structured and replicable framework to teach life skills effectively;
- Enhances teacher-student relationships through positive reinforcement and individualized support;
- Promotes a more inclusive classroom environment by addressing diverse learning needs;
- Facilitates easier progress tracking with routine charts and visual aids.

Innovation in this Practice

- Encourages autonomy through real-life simulations and relatable tasks;
- Combines life skills training with socialization opportunities, creating a holistic learning experience.

Problems Solved with this Good Practice

- Reduces dependency on others for basic tasks;
- Enhances the ability of students to follow structured routines;
- Builds pathways for better inclusion and social interaction within the classroom.

Resources links:

Routine to learn to cut with a knife and fork | Recursos CAA do ARASAAC
Recursos partilhados de CAA - ARASAAC

LEGO Mindstorms

Description:

„LEGO Pieces”: The core construction material is LEGO, which makes it easy to design custom robotic structures. Can build anything from simple wheeled robots to more complex articulated robots or machines.

The WOW! Moment

Hidden mission or challenge (Escape Room style). Create a task with hidden layers of clues: a robot has to find codes, solve puzzles, open a "secret box". The "magic" accessory - the secret component. Pull out a "secret component" , e.g. an extra sensor or an unusual part - and suggest using it in the activity.

Keywords

Touch sensor; Colour sensor; Ultrasonic sensor; Gyro sensor; LEGO Power Functions.

Development of the Activity

Introducing of the Topic

LEGO pieces are the iconic building blocks that have become a staple of creative play for people of all ages. Lego used robotic constructions.
Grade Level: 7 grade
Duration: 60 minutes.

Students understand the basic principles of robotics and programming.
Students construct a simple LEGO Mindstorms robot.
Students program the robot to perform basic tasks using LEGO Mindstorms software.

The WOW! Moment

Hidden mission or challenge (Escape Room style). Create a task with hidden layers of clues: a robot has to find codes, solve puzzles, open a "secret box". The "magic" accessory - the secret component. Pull out a "secret component" , e.g. an extra sensor or an unusual part - and suggest using it in the activity.

Exploration Activity

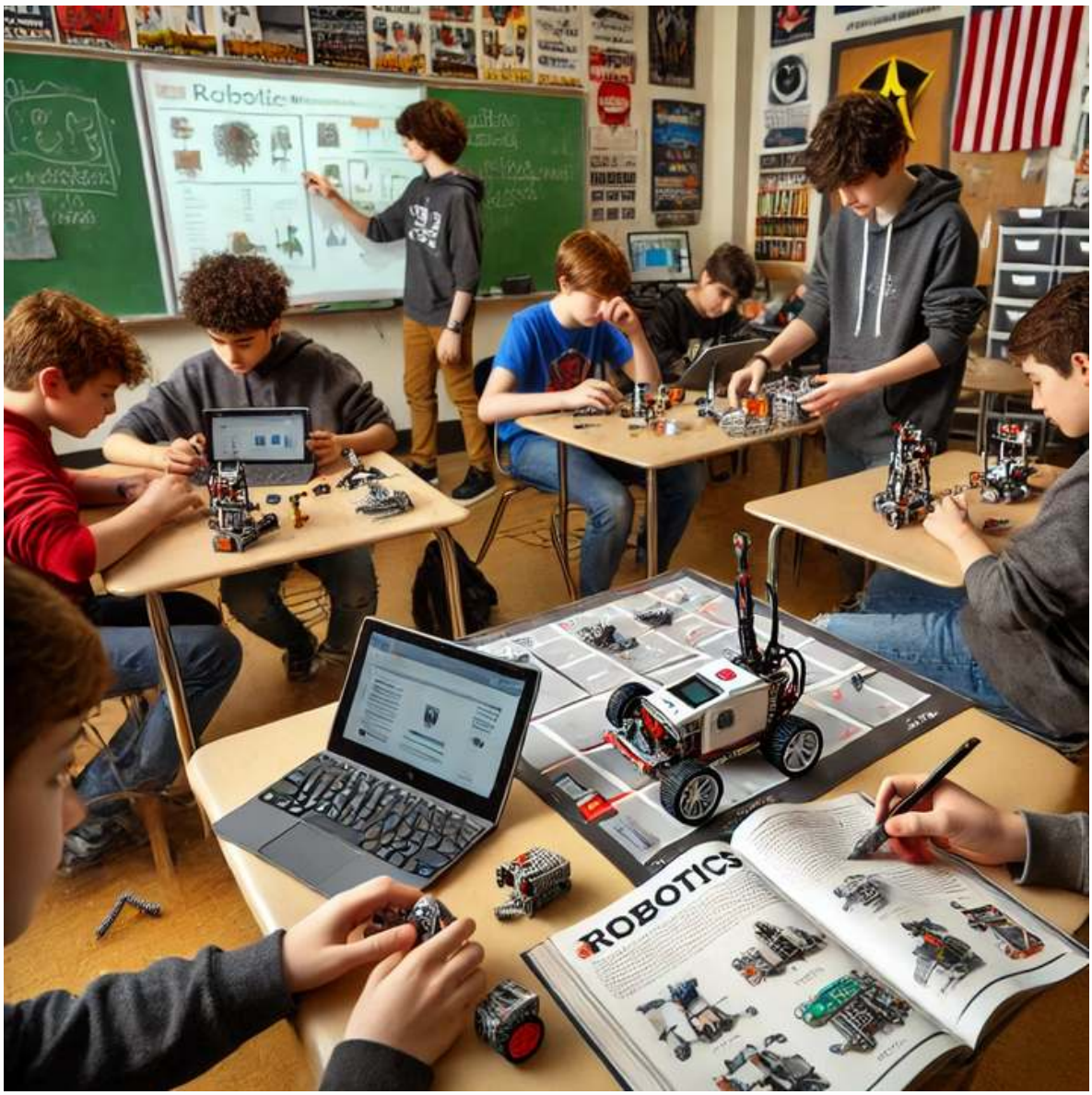
-Created the Lego model.
- Attached motors to model.
- Attached sensors to LEGO creation.
- Students plug in the motors and sensors to a programmable brick (SPIKE Prime).
- Programmed the motors to perform specific actions (move forward, turn, stop, etc.) based on sensor input (e.g. stop when a touch sensor is pressed, or follow a line using a colour sensor).

Presentation of the Results

We highlighted the success of the integration of the motor and the sensor. We discussed what specific actions were successful and what challenges were overcome.

Conclusion

The LEGO model successfully integrates motors and sensors to perform autonomous navigation and obstacle avoidance.



Benefits for Students

- Integrating motors and sensors, students can build a wide range of systems and robots, which encourages creativity. They can work with moving parts, detect objects or even create complex movements.

Benefits for Teachers

- Lessons using Lego and motor sensors are much more interactive. Teachers and pupils work together to develop teamwork and communication skills.

Innovation in this Practice

- The combination of LEGO's modular and customizable nature with motors adds a whole new layer of interactivity, movement, and automation to the builds.

Problems Solved with this Good Practice

- Difficulty understanding complex concepts;
- Limited interaction and collaboration;
- Limited problem-solving opportunities.

Resources links:

VEXcode VR

Experiential Learning Approaches in Social Studies

Description:

Experiential learning in Social Studies immerses students in hands-on, real-world experiences, deepening their understanding of social, cultural, and historical concepts. Role-playing, simulations, debates, and project-based activities bring history, governance, and community issues to life. Digital tools like VR field trips, interactive maps, and primary source analysis enhance engagement. These dynamic approaches foster critical thinking, collaboration, and a personal connection to the subject, making learning more interactive and impactful.

The WOW! Moment

The teacher introduces an immersive element—a historical reenactment, a primary source document, or an interactive simulation.
Students react with curiosity, engaging in discussion and asking deeper questions

Keywords

Experiential learning; Critical thinking; Real-world application; Immersion.

Development of the Activity

Introducing the Topic

The teacher presents a real-world scenario, role-play invitation, or thought-provoking question
Example: "What challenges did Europeans face during the rebuilding of Europe after World War II" or "How would you run a town with limited resources?"
Students brainstorm responses and share their thoughts on a class discussion board or chart.

The WOW! Moment

The teacher introduces an immersive element—a historical reenactment, a primary source document, or an interactive simulation.
Students react with curiosity, engaging in discussion and asking deeper questions

Exploration Activity

Students take on roles (e.g., historical figures, government officials, activists) and participate in hands-on activities such as debates, town hall meetings, or crisis simulations.
They research historical events, analyze primary sources, and use interactive maps or digital storytelling tools.
Example: Groups simulate a council meeting to debate the impact of the Industrial Revolution on workers and business owners.

Presentation of the Results

Students present their insights through skits, multimedia presentations, political cartoons, or digital stories.
Example: They create a first-person diary entry, a mock interview with a historical figure, or a short documentary.
The class reflects on how perspectives evolved during the activity.

Conclusion

The teacher leads a discussion on real-world connections, asking students to relate their experience to modern social issues.
Example: "How do immigration policies today compare to those from the past?"
Students summarize their key learnings and explore how their understanding has evolved throughout the activity.



Benefits for students

- Motivation & Engagement: Hands-on activities make learning fun and engaging;
- Better Understanding: Experiencing concepts helps with retention and comprehension;
- Critical Thinking: Role-play and debates develop analysis and problem-solving skills.

Benefits for Teachers

- Student Focus: Keeps students interested through active learning;
- Stronger Learning: Links theory to practice for better retention;
- Improved Dynamics: Encourages collaboration and participation.

Innovation in this Practice

- New tech: Uses VR, AR, and simulations for immersive learning;
- Cross-subject: Combines social studies with tech and art;
- Modern methods: Updates traditional activities for student-centered learning;
- High engagement: Boosts participation through interactive tools.

Problems Solved with this Good Practice

- Low interest: Makes learning more appealing than passive methods;
- Shallow learning: Connects lessons to real-life for deeper understanding;
- Weak thinking skills: Builds analysis, discussion, and decision-making.

Resources links:

- Facing History & Ourselves https://www.facinghistory.org/
- EuroClio https://www.euroclio.eu/
- World History Project https://www.oerproject.com/World-History
- Experiential Learning: Experience as the Source of Learning and Development (1984) David A. Kolb

Fostering Critical Thinking and Civic Engagement

Description:

This teaching method encourages students to analyse issues, question assumptions, and develop informed opinions on societal and political matters. Through discussions, debates, case studies, and problem-solving activities, students engage with real-world challenges, learning to think independently and act as responsible citizens. This approach enhances analytical reasoning, ethical decision-making, and active participation in social and civic processes. Digital platforms, interactive simulations, primary source analysis tools, and virtual debates are integrated to facilitate engagement and deepen students' understanding of civic issues.

The WOW! Moment

A powerful stimulus is introduced—an interactive simulation, real-life case study, political speech, or visual storytelling.
Example: A fake emergency meeting where students must respond to a national crisis.
Students react by questioning their assumptions and discussing immediate responses.

Keywords

Debate; Discussion; Critical thinking; Civic engagement.

Development of the Activity

Introducing the Topic

The teacher presents a real-world issue, controversial statement, or ethical dilemma to provoke discussion.
Example: “Should governments prioritize security over personal privacy?” or “Is civil disobedience justified in a democracy?”
Students reflect on their initial thoughts and discuss in small groups, listing key questions they want to explore.

The WOW! Moment

A powerful stimulus is introduced—an interactive simulation, real-life case study, political speech, or visual storytelling.
Example: A fake emergency meeting where students must respond to a national crisis.
Students react by questioning their assumptions and discussing immediate responses.

Exploration Activity

Students engage in role-playing scenarios, policy-making exercises, or community action projects**.**
They research relevant primary sources, legal frameworks, and historical events, using digital tools and data analysis to build arguments.
Example: Groups take on roles as policymakers, activists, or journalists in a simulated town hall discussing climate change policies or human rights laws.

Presentation of the Results

Students present their findings through public speeches, digital campaigns, simulated political debates, or civic proposals.
Example: A group creates a petition video addressing a local issue or drafts a policy recommendation to simulate real-world civic engagement.
The class reflects on different perspectives and evaluates the effectiveness of proposed solutions.

Conclusion

The teacher facilitates a reflection on how critical thinking shaped students' views and how civic engagement applies to their own lives.
Example: “How can young people influence government decisions today?” or “What civic actions could you take on an issue you care about?”
Students self-assess their participation and discuss real-world applications of their learning.

This approach empowers students to think critically, debate responsibly, and actively engage in civic life.



Benefits for Students

- Civic Awareness: Builds understanding of democracy and social responsibility;
- Communication Skills: Improves public speaking, debate, and persuasion;
- Problem-Solving: Teaches analysis, perspective-taking, and evidence-based decisions.

Benefits for Teachers

- Active Learning: Shifts focus from passive lessons to student-led discussions;
- Critical Thinking: Supports deeper classroom conversations and independent thinking.

Innovation in this Practice

- Civic projects: Students design real solutions and engage with communities;
- Digital tools: Uses online debates, virtual events, and AI for interactive learning.

Problems Solved with this Good Practice

- Disconnected learning: Links education to real civic issues;
- Low engagement: Promotes active participation through debates and simulations;
- Poor civic knowledge: Prepares students to be informed, confident citizens.

Resources links:

https://retroreport.org/civics-resources/
https://journeysinfilm.org/product/civics-civic-engagement-lessons/
https://www.si.edu/educators/social-studies-resources

Everyday STEM: Learning Science from Daily Life

Description:

This teaching method connects STEM concepts to real-world experiences, making learning more relatable and meaningful for students. By exploring science through daily activities, household items, and natural phenomena, students develop curiosity, problem-solving skills, and a deeper understanding of STEM principles in their everyday environment. This approach encourages hands-on experimentation, observation, and inquiry-based learning, bridging the gap between classroom knowledge and real-life applications. Tools such as household materials for experiments, mobile science apps (e.g. PhET Interactive Simulations, Google Lens), interactive simulations, and digital measuring tools (Decibel meter, Pedometer, Thermometers and Weather Apps) enhance exploration and make learning more engaging.

The WOW! Moment

An engaging demonstration is introduced—an experiment, a short video, or a real-life challenge.
Example: The teacher blows up a balloon and lets the air out, asking students to predict how the same principle applies to jet engines.
Students react with excitement and curiosity, leading to deeper questioning and exploration.

Keywords

Real-world engagement; Hands-on learning; Inquiry based exploration.

Development of the Activity

Introducing the Topic

The teacher presents a simple yet intriguing question or real-world scenario related to everyday STEM concepts.
Example: “Why does bread rise when we bake it?” or “How can we hear sounds through a homemade string telephone?”
Students brainstorm their ideas and discuss possible explanations before conducting hands-on exploration.

The WOW! Moment

An engaging demonstration is introduced—an experiment, a short video, or a real-life challenge.
Example: The teacher blows up a balloon and lets the air out**,** asking students to predict how the same principle applies to jet engines.
Students react with excitement and curiosity, leading to deeper questioning and exploration.

Exploration Activity

Students perform hands-on experiments using household materials and digital tools to explore real-world STEM applications.
They observe, collect data, and test hypotheses through guided activities.

Example: Students create homemade string telephones using cups and string to explore how sound travels through vibrations**.**

Presentation of the Results

Students analyze their findings and present conclusions through drawings, simple reports, or short videos.
Example: Groups compare different string lengths and materials to see which carries sound best and share their discoveries in a class discussion.
The class discusses how similar principles apply to real-world.

Conclusion

The teacher leads a reflection on how everyday objects and experiences connect to STEM concepts.
Example: “How does understanding sound waves help engineers design better microphones and speakers?”
Students apply their learning by identifying other real-life STEM connections at home or in their environment.



Benefits for Students

- Relatable & Fun: Makes STEM hands-on and connected to real life;
- Critical Thinking: Boosts observation, analysis, and problem-solving;
- Curiosity & Creativity: Turns everyday moments into science discovery.

Benefits for Teachers

- Active Learning: Promotes inquiry-based, student-led exploration;
- Higher Engagement: Links STEM to daily life for deeper interest.

Innovation in this Practice

- Real-life STEM: Applies science to everyday contexts;
- Hands-on learning: Uses simple materials for exploration;
- Digital tools: Enhances learning with apps and simulations.

Problems Solved with this Good Practice

- Theory vs. Practice: Makes STEM relevant and practical;
- Low motivation: Encourages curiosity through active learning;
- Limited resources: Uses affordable tools for broad accessibility.

Resources links:

- Science Journal by Google https://www.sciencebuddies.org/science-journal-app
- NASA Kids' Club https://www.nasa.gov/learning-resources/nasa-kids-club/
- Mystery Science https://mysteryscience.com/

Virtual Eco-Tours

Description:

A digital field trip experience where students explore sustainable practices around the world through virtual reality and online resources.

The WOW! Moment - Take students on a virtual reality tour of eco-friendly locations using Google Earth VR or YouTube 360.



Keywords

Virtual learning; Sustainability; Eco-tourism.

Development of the Activity

Introducing the Topic

Introduce students to different sustainable environments (rainforests, oceans, smart cities) through discussion.

The WOW! Moment

Take students on a virtual reality tour of eco-friendly locations using Google Earth VR or YouTube 360.

Exploration Activity

Students explore different sustainable habitats and document their findings in a digital travel journal (Google Docs, Padlet).

Presentation of the Results

Students create digital presentations or videos summarizing their virtual tour experience.

Conclusion

Discuss key takeaways and brainstorm ways to implement sustainable practices in their own community.

Benefits for Students

- Expands global awareness, makes learning more immersive and engaging.

Benefits for Teachers

- Provides access to real-world sustainability practices without physical travel.

Innovation in this Practice

- Utilizes virtual technology to enhance experiential learning.

Problems Solved with this Good Practice

- Limited access to real-world sustainable environments.

Resources links:

https://earth.google.com/
YouTube 360

Digital Carbon Footprint Tracker

Description:

An interactive activity where students measure and analyze their carbon footprint using digital tools to make sustainable lifestyle changes.

The WOW! Moment

Show a visual simulation of carbon emissions and their impact on the planet.



Keywords

Carbon footprint; Digital tracking; Sustainability habits.

Development of the Activity

Introducing the Topic

Explain what a carbon footprint is and why it matters.

The WOW! moment

Show a visual simulation of carbon emissions and their impact on the planet.

Exploration Activity

Students use a carbon footprint calculator (e.g., Earth Hero app, MyCarbon) to assess their environmental impact.

Presentation of the Results

Students compare and discuss their results, then create action plans for reducing their footprint using Canva or Google Docs.

Conclusion

Track progress over time and reflect on changes using Seesaw or Flipgrid.

Benefits for Students

- Develops awareness of personal impact on the environment and encourages proactive change.

Benefits for Teachers

- Encourages data-driven learning and real-life applications.

Innovation in this Practice

- Turns abstract environmental data into actionable steps.

Problems Solved with this Good Practice

- Lack of understanding of personal sustainability impact.

Resources links:

https://www.earthhero.org/en_GB/

Sustainable Food Explorers

Description:

A digital research project where students learn about sustainable food sources, ethical farming, and plant-based diets.

The WOW! Moment

Show an interactive simulation of how food choices affect the planet (e.g., Our World in Data food impact charts).



Keywords

Sustainable food; Ethical eating; Environmental impact.

Development of the Activity

Introducing the Topic

Discuss where food comes from and its environmental impact.

The WOW! Moment

Show an interactive simulation of how food choices affect the planet (e.g., Our World in Data food impact charts).

Exploration Activity

Students research sustainable food options using databases like WWF and create digital posters.

Presentation of the Results

Students design an infographic or video about sustainable eating habits using Canva or Adobe Spark.

Conclusion

Reflect on how individual food choices contribute to a sustainable future, using a class discussion board.

Benefits for Students

- Encourages critical thinking about daily habits and long-term sustainability.

Benefits for Teachers

- Integrates digital literacy with environmental education.

Innovation in this Practice

- Uses global data and research to foster local action.

Problems Solved with this Good Practice

- Lack of knowledge about sustainable food sources.

Resources links:

https://ourworldindata.org/

Steam Challenges

Description:

STEAM (Science, Technology, Engineering, Arts, and Mathematics) challenges engage students in interdisciplinary, hands-on problem-solving activities. These challenges connect different subjects and encourage students to design, build, and test solutions to real-world problems.

In the Discovery phase of the Wonder Learning approach, students apply knowledge creatively through project-based activities, such as designing a bridge, coding a robot, or creating an environmental sustainability plan.

The WOW! Moment

The teacher presents an unexpected problem or challenge to spark students' curiosity. For example:

- "You are engineers on Mars, and your rover broke down—how will you design a new one using limited resources?"
- "What if we could create music using science? How would you design a STEAM-powered instrument?"

Keywords

STEAM education; Project-based learning; Hands-on learning; Collaboration; Critical thinking.

Development of the Activity

Introducing the Topic

The teacher sets the scene with an engaging question or real-world scenario.
Example: Showing images of famous engineering failures and asking, “What went wrong?”

The WOW! Moment

The teacher demonstrates a surprising experiment or plays a video that highlights the challenge.
Example: A video of a bridge collapsing due to poor engineering, leading to student discussion on structural integrity.

Exploration Activity

Students form teams to brainstorm and prototype solutions using provided materials (e.g., cardboard, circuits, coding programs).
Example: Building earthquake-resistant towers using spaghetti and marshmallows.

Presentation of the Results

Each team presents their final product, explaining the design process and problem-solving steps.
Example: Demonstrating how their tower withstands a simulated earthquake.

Conclusion

The class reflects on what worked, what didn't, and how engineers solve problems in real life.

Students connect their findings to real-world careers in STEM and the arts.



Benefits for Students

- Develops problem-solving and critical thinking;
- Encourages teamwork and collaboration;
- Provides real-world application of STEM concepts;
- Enhances creativity through experimentation.

Benefits for Teachers

- Supports cross-disciplinary teaching;
- Engages students through hands-on activities;
- Encourages design thinking and inquiry-based learning;
- Helps students see real-world connections between subjects.

Innovation in this Practice

- Integrates multiple disciplines into one engaging learning experience;
- Uses physical materials and technology for real-world problem solving;
- Encourages exploration, iteration, and creative failure.

Problems Solved with this Good Practice

- Lack of student engagement in traditional STEM education;
- Minimal hands-on, experiential learning opportunities;
- Little connection between school subjects and real-world careers.

Resources links:

🔗 STEAM Challenges Examples
🔗 Engineering is Elementary

Mystery-Based Learning

Description:

Mystery-Based Learning introduces topics through intriguing puzzles, scenarios, or detective-style problems. Students start with a question, a case, or a historical mystery, which sparks their curiosity and drives their learning process.

This method is particularly useful in the Anticipation phase of the Wonder Learning approach, as it stimulates problem-solving and inquiry skills.

The WOW! Moment

The teacher presents a mystery—a crime scene, an ancient artifact, or an unsolved question.

Example: "A famous scientist disappeared in 1920—what happened?" or "There's a message in an unknown language. Can you decode it?"

Keywords

Gamified learning; Inquiry-based education; Problem-solving; Engagement; Student-driven learning.

Development of the Activity

Introducing the Topic

The teacher presents an engaging scenario or story.
Example: Showing a historical mystery or an unexplained scientific phenomenon.

The WOW! Moment

Students watch a short video or examine an artifact, sparking excitement.
Example: A sealed letter is presented, and students must figure out who wrote it and why

Exploration Activity

Students work in teams to gather clues, analyze evidence, and create hypotheses.
They conduct research, examine historical records, or perform experiments.

Presentation of the Results

Each group presents their theory and explains their reasoning.
The teacher reveals the real explanation (if available).

Conclusion

Students reflect on what they learned and how mystery-solving connects to real-world professions (e.g., detectives, historians, scientists)



Benefits for Students

- Encourages critical thinking and inquiry skills;
- Strengthens problem-solving abilities;
- Makes learning fun and engaging;
- Improves collaborative teamwork.

Benefits for Teachers

- Provides a dynamic and interactive way to introduce complex topics;
- Can be used across multiple subjects (history, science, literature);
- Develops higher-order thinking skills in students.

Innovation in this Practice

- Uses game-based learning to engage students;
- Encourages active discovery instead of passive memorization;
- Enhances interdisciplinary connections.

Problems Solved with this Good Practice

- Lack of engagement in traditional classroom settings;
- Difficulty in motivating students to explore complex topics;
- Overreliance on rote memorization.

Resources links:

🔗 Mystery Science Lessons
🔗 Inquiry-Based Learning Strategies

Digital Portfolios

Description:

Digital portfolios allow students to document, reflect, and showcase their learning using online platforms (e.g., Google Sites, Seesaw, or Padlet). This method is essential in the Propagation phase, as students present their work to peers, teachers, or even external audiences.

The WOW! Moment

The teacher presents a famous digital portfolio, showing how students around the world use them to build careers and express creativity.
Example: "Imagine if your work was seen by people all over the world!"



Keywords

Digital learning; Student reflection; Personalized education; Technology in learning; Metacognition.

Development of the Activity

Introducing the Topic

The teacher explains what a digital portfolio is and why it’s important. Students explore examples of portfolios from different fields.

The WOW! Moment

Students watch a video of a student who used a portfolio to get into university or start a project.

Exploration Activity

Each student creates their own portfolio, adding work from previous lessons.
They use multimedia elements (videos, images, blogs, reflections, projects, etc.).

Presentation of the Results

Students showcase their portfolios in small groups and give feedback to each other.

Conclusion

Reflection: "How can you use this portfolio in the future?"

Benefits for Students

- Encourages self-reflection and growth;
- Improves digital literacy;
- Creates a personalized record of learning;
- Helps with future career or university applications.

Benefits for Teachers

- Provides a long-term view of student progress;
- Makes assessment more transparent;
- Encourages peer collaboration.

Innovation in this Practice

- Uses technology for learning;
- Encourages student autonomy;
- Allows ongoing assessment and feedback.

Problems Solved with this Good Practice

- Traditional assessments limit creativity;
- Students struggle with reflecting on learning progress;
- Lack of student ownership over learning.

Resources links:

🔗 How to Create Digital Portfolios
🔗 Seesaw for Student Portfolios

Interactive Games for Students with Special Educational Needs (SEN) or Learning Difficulties

Description:

This activity leverages interactive games to enhance learning for students with special educational needs (SEN) or learning difficulties. By using hands-on and engaging methods, these games help students develop key skills such as problem-solving, communication, and motor coordination in an inclusive and supportive environment. The approach is designed to cater to diverse learning styles, ensuring every student can participate and benefit from the experience.

The WOW! Moment

- Allow students to explore the games independently after an initial guided demonstration.
- Observe and celebrate their success as they solve a puzzle, complete a level, or achieve a goal in the game.
- Use verbal praise, certificates, or small rewards to reinforce their efforts and accomplishments.

Keywords

Interactive games; Special educational needs (SEN); Learning difficulties; Skill development.

Development of the Activity

Introducing the Topic

Begin by explaining how interactive games can support learning and skill development for students with SEN or learning difficulties.
Introduce different types of interactive games that target various skills, such as memory games, tactile puzzles, and role-playing scenarios.
Highlight the importance of teamwork and collaboration in these activities to build social and emotional skills.

The WOW! Moment

Allow students to explore the games independently after an initial guided demonstration.
Observe and celebrate their success as they solve a puzzle, complete a level, or achieve a goal in the game.
Use verbal praise, certificates, or small rewards to reinforce their efforts and accomplishments.

Exploration Activity

Divide students into groups and assign each group a specific game tailored to their needs and abilities (e.g., sensory games for tactile learners, digital games for visual learners).
Encourage students to collaborate within their groups, share strategies, and help each other succeed.
Provide opportunities for students to create their own simple interactive games, using materials like cards, blocks, or digital tools.

Presenting of the Results

Have students demonstrate how they played the games or share what they learned with the class.
Allow groups to showcase their created games, explaining the rules and how others can play.
Foster peer feedback by encouraging classmates to share their thoughts and celebrate each other's achievements.

Conclusion

Summarize the key takeaways from the games, emphasizing the skills learned (e.g., problem-solving, teamwork, or creativity).
Discuss how these skills can be applied in real-life situations, such as at home or in the community.
Provide additional resources, such as a list of recommended games for further practice or guides on creating interactive games at home.
End with a group celebration or relaxation activity to leave students feeling motivated and accomplished.



Benefits for Students

- Skill building: Boosts cognitive, motor, and social skills;
- Inclusive: Supports all abilities in meaningful ways;
- Confidence: Increases self-esteem through achievement;
- Teamwork: Encourages collaboration and communication.

Benefits for Teachers

- Engagement: Effectively involves students with SEN;
- Inclusive tools: Helps create a supportive classroom;
- Insightful: Lets teachers observe student strengths;
- Practical: Offers reusable, adaptable resources.

Innovation in this Practice

- Game-Based Learning: Makes lessons fun and accessible;
- Adaptable: Custom games fit diverse student needs;
- Skill-Focused: Builds real-life abilities through play.

Problems Solved with this Good Practice

- Low Engagement: Replaces passive learning with fun tasks;
- Exclusion: Ensures all students can join and succeed;
- Motivation Gaps: Keeps interest high with interactive play.

Resources links:

Creator interative games: https://genially.com/pt-br/modelos/jogos/

Ekonovus

Description:

Simulation game.

Group work.

Individual household waste analysis delivery.

The WOW! Moment

Four groups studying different sites : Earth Hero, JouleBug, Giki ,all working.

Footprint calculator, used Adobe InDesign.



Keywords

Recycle; Compost; Landfill; Waste.

Development of the Activity

Introducing the Topic:

Students monitor how much waste a family throws away per month and what kind of waste. Monitoring whether waste is sorted correctly. Learned how to sort waste by playing and summarising, comparing the homework results , and working in groups created posters.

The WOW! Moment

Four groups studying different sites : Earth Hero, JouleBug, Giki ,all working.
Footprint calculator, used Adobe InDesign.

Exploration Activity:

Waste sorting games.Simulation game – a game in which players must manage a large waste stream and correctly sort various waste within a certain time.
Students working in groups created a poster explaining the importance of waste sorting.
Used websites and a footprint calculator.
Presentation of homework results:charts showing the distribution of waste generated by family farms by category.

Presentation of the Results.

Environmental awareness: lessons helped understand the importance of sorting practices and how they help reduce pollution and conserve natural resources.

Conclusion.

These lessons increase community awareness and willingness to cooperate for a cleaner environment.

Benefits for Students

- Encouraging critical thinking - sorting requires pupils to evaluate waste, make decisions and understand which materials can be recycled and which must be disposed of. This develops their ability to analyse and solve problems.

Benefits for Teachers

- Creating a sustainable future - through education programmes on waste separation, teachers develop responsible citizens who will follow sustainability principles not only in their daily lives, but also at work and in the community.

Innovation in this Practice

- Adobe InDesign -the software helps you create professional posters using stunning typography and optional graphics.

Problems Solved with this Good Practice

- Lack of interest in the subject;
- Lack of motivation for learning;
- Difficulty understanding the lesson.

Resources links:

https://giki.earth/
https://www.earthhero.org/en_GB/
https://www.footprintcalculator.org/home/en
https://www.joulebug.com/
https://www.adobe.com/lt/products/indesign/poster-design-software.html

Social Studies through Music and Dance

Description:

This method makes learning engaging by using songs, rhythms, and traditional dances to teach historical events, cultural traditions, and social movements. This method helps students develop a deeper connection to different cultures and historical narratives through movement and melody.

Suggested Tools: Folk music recordings, YouTube educational dance tutorials, rhythm instruments, and interactive apps like MusicMap.

The WOW! Moment

A powerful or emotional piece of music, lyrics, or dance is introduced to spark curiosity.

Example: A war-time folk song that reflects people's struggles.
Students react by discussing their emotions, interpreting lyrics or movements, and questioning the deeper meaning.

Keywords

Music integration; Movement-based education; Cultural integration.

Development of the Activity

Introducing the Topic

The teacher explains how music and dance reflect historical events, cultural traditions, and social movements.
Students listen to a selected song or watch a traditional dance performance related to the topic.
The teacher provides background information on the historical and cultural significance of the music or dance.

The WOW! Moment

A powerful or emotional piece of music, lyrics, or dance is introduced to spark curiosity.

Example: A war-time folk song that reflects people's struggles.
Students react by discussing their emotions, interpreting lyrics or movements, and questioning the deeper meaning.

Exploration Activity

Students engage in hands-on activities such as:
Song analysis: Breaking down lyrics to understand historical messages or cultural themes.
Dance interpretation: Learning and performing a simple traditional dance while discussing its origins.
Musical mapping: Connecting different music styles to historical migrations, conflicts, or cultural exchanges.
Creative expression: Writing their own songs or choreographing a dance based on historical themes.

Presentation of the Results

Students present their findings through performances, group discussions, or creative projects.
Formats may include:
Live performance: Singing a song or performing a dance learned during the lesson.

Multimedia Presentation: A video or slideshow analyzing the social impact of specific music or dance styles.
The teacher facilitates discussions, connecting music and dance to broader historical and social studies themes.

Conclusion

The teacher leads a reflection session where students assess how music and dance shape cultural identity and historical understanding.
Students share how their perspective on history and culture has evolved through this activity.



Benefits for Students

- Enhances cultural awareness and historical understanding by connecting music and dance to real events and traditions;
- Increases engagement and memory retention through interactive, rhythmic, and movement-based learning.

Benefits for Teachers

- Provides an engaging and interactive way to teach history and culture, making lessons more dynamic and memorable;
- Encourages multi-sensory learning, helping students of different learning styles connect with the material more effectively.

Innovation in this Practice

- Integrates music and dance as active learning tools, transforming traditional lectures into immersive, experiential lessons;
- Uses digital platforms, interactive apps, and multimedia resources to explore historical and cultural connections in a modern, engaging way.

Problems Solved with this Good Practice

- Reduces student disengagement by making history and culture more interactive and memorable;
- Helps students better understand and retain complex social studies concepts through music and movement;
- Encourages inclusivity by catering to diverse learning styles, particularly kinesthetic and auditory learners.

Resources links:

https://www.artsacad.net/learning-social-studies-through-dance/https://advancingartsleadership.com/blog/dance-and-social-studies-lesson-plans
https://www.thedomesticmusician.com/music-and-social-studies-integration-ideas-for-kids/

DigiMathArt v3

Description:

DigiMathArt v3 it’s an interactive method for teaching mathematics, using a multiplayer platform to build 3D objects and scenes with the help of standard or parametric graphic primitives based on a hierarchical structure, dedicated to teaching applied mathematics. This method is aimed primarily at middle school students, but not exclusively.

Both the method and the application have a rich history, being the result of over 20 years of educational research by Roxana Drăgănoiu and are based on two earlier versions - DigiMathArt v1 and v2. First, the DigiMathArt v1 method was developed, which teaches mathematics through graphic programming using Processing (a Java IDE) and is aimed at high school students.

During the pandemic, the need for online teaching emerged, especially for primary and middle school children. Thus, numerous experiments in interactive mathematics teaching through programming using the Unity 3D platform were conducted, leading to the development of DigiMathArt v2.

Keywords

Digimathart; Mathematics through constructions; Applied mathematics; STEM; STEAM; Innovation.

To address the limitations of the Unity 3D platform in teaching mathematics, the need arose to create a dedicated application, and thus, both the DigiMathArt v3 method and application were developed in parallel. One of the first requirements was the existence of an interface that did not require programming. Subsequently, many other features were added, such as:

• Editing the properties of graphic primitives (positions, angles, scalars), as well as textures and colors using advanced mathematical operations and expressions (pow, exp, sin, cos),
• Parametric modeling of the surfaces of primitives using mathematical functions,
• Simultaneous creation of multiple duplicates of an object/hierarchical structure and accessing their indices to use in formulas,
• Modeling surfaces using mathematical formulas,
• Accessing property values through variables for use in calculating other properties.

The application can be successfully used to facilitate learning concepts from the STEAM fields and highlight the practical applicability of these concepts.
The proposed activity represents a way to consolidate middle school students' knowledge about the geometry of right triangles, rotations, and the use of coordinate systems for creating 3D constructions.

The WOW! Moment

With the help of the DigiMathArt application, a 3D wall is generated. With a few simple operations, the wall multiplies, the resulting walls rotate, and an octagonal tower is formed. The challenge is to perfect the construction so that the components fit perfectly.

Development of the Activity

Introducing the Topic

The teacher shows students images of some famous towers and asks them to observe repeating patterns. Students should come up with ideas on how to build a tower using only the wall element.

The WOW! Moment

The teacher generates a wall using the DigiMathArt application. Students discover, either independently or guided by the teacher, that the octagonal tower can be obtained by multiplying the wall and rotating the resulting walls around the tower's axis of symmetry. The challenge is to perfect the construction so that the components fit perfectly.

Exploration Activity

Students observe that in the generated tower, the walls do not fit perfectly at the outside. They will research how parameters and formulas need to be modified in the application to achieve a correct fit. For this, the regular octagon determined by the outer upper edges of the tower's walls will be used as a mathematical model. Knowing the apothem of the octagon, students will need to calculate the length of its side and the angle formed by the apothem with the segment connecting the center of the octagon to the vertex of the corresponding side of the apothem (in fact, the radius of the circumscribed circle of the octagon, extended toward that vertex). They will modify the parameters and formula with the new data to achieve the desired result.

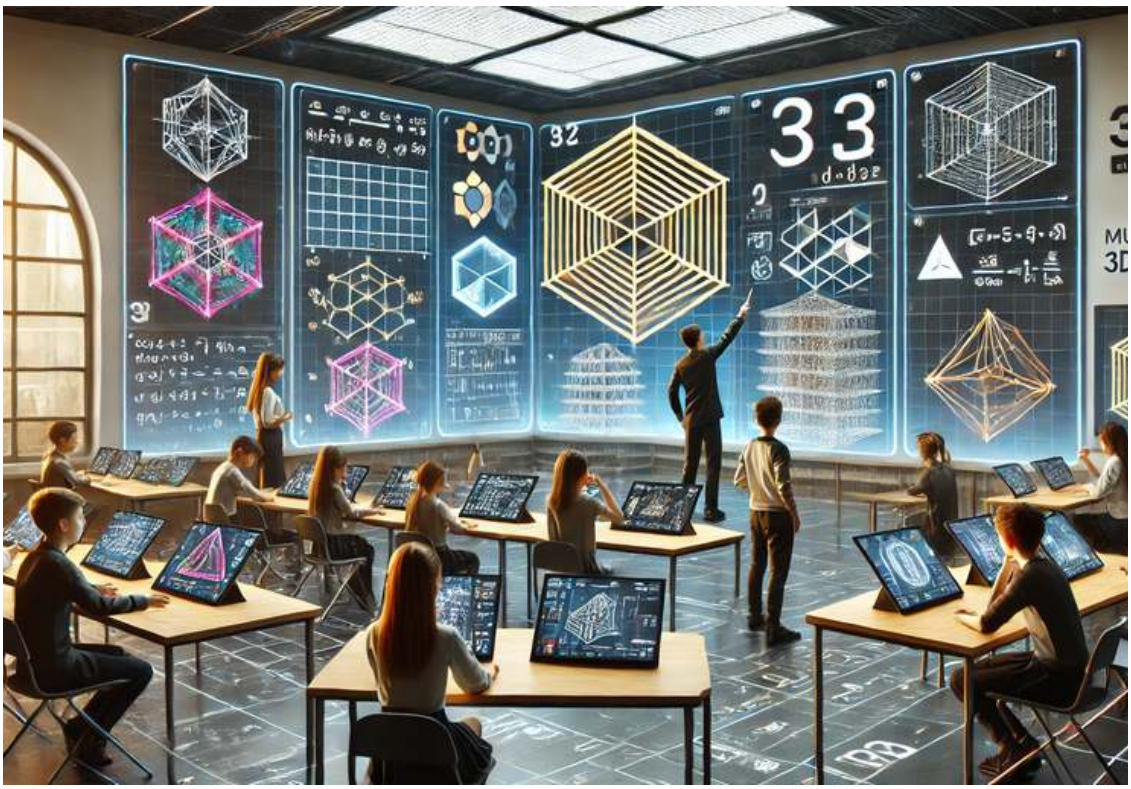
Then, students will be divided into groups and will explore how parameters should be modified to create different types of towers: with 4 or 16 walls, the relationship between the number of walls and parameters like the width of the outer wall or the angle formed by the apothem of the octagon with the radius of the circumscribed circle, and explore what other constructions can be made by modifying the settings, etc.

Presentation of the Results

Each group presents a demo with the results obtained. They then explain what parameters they used or how they modified the initial parameters. Since the application allows it, all the constructions will be placed in the same window, making it easy to compare the towers and constructions obtained.

Conclusions

Students discuss the results obtained. Each group will be tasked with creating an infographic that includes all the mathematical elements and concepts necessary for building the towers.



Benefits for Students

- Visual learning: Understand math through 3D and visual tools;
- Real-life application: See how math applies to engineering and design;
- Gamified Learning: Learn playfully, alone or with peers;
- Active Engagement: Boosts curiosity, creativity, and collaboration;
- Digital skills: Develop essential tech abilities;
- Stronger math skills: Grasp abstract concepts like geometry and trigonometry.

Benefits for Teachers

- Interactive teaching: Make math lessons hands-on and visual;
- Covers many topics: Teach geometry, algebra, and more;
- Simplifies complex ideas: Reduces confusion with clear visuals;
- Customizable lessons: Adapts to student needs and styles;
- Better assessment: Track progress through student activity;
- Modern tools: Boosts digital teaching skills.

Innovation in this Practice

- 3D modeling: Makes abstract math tangible;
- No coding needed: Easy for all to use;
- Accessible anywhere: Works online and offline.

Problems Solved with this Good Practice

- Abstract confusion: 3D visuals make concepts clearer;
- Low interest: Interactive tools increase motivation;
- Theory-practice gap: Applies math to real tasks;
- Unequal access: Usable in all learning settings.

Resources links:

Roxana Drăgănoiu: https://www.facebook.com/roxana.draganoiu/
Group: https://www.facebook.com/groups/677608224521295/
Page: https://www.facebook.com/profile.php?id=61555821849314
Activity: DigiMathArt-Geometry Demo Lesson

Discover the Invisible world

Description:

Merge Cube is an innovative technology that allows students to interact with 3D models through augmented reality (AR). Using the app, students can explore and learn about STEM subjects in an engaging way.

The activity focuses on topics such as ecosystems, space exploration, human body anatomy, and molecular structures. Students interact with 3D models via Merge Cube, completing practical and creative tasks. The project promotes active and interdisciplinary learning.

The WOW! Moment

The lesson begins with an engaging demonstration in which the teacher uses Merge Cube to project a 3D model of a virtual habitat, a beating heart, a building, or an atom in motion. Students are encouraged to explore the models and guess the subject of the lesson.

Keywords

Augmented reality; STEM; Active learning; Merge cube; Interactive exploration.

Development of the Activity

Introducing the Topic

The teacher introduces the lesson's topic: "The Invisible World Around Us."
Students are divided into thematic groups: ecology, space exploration, anatomy, engineering.
Each group receives a specific task and a relevant Merge Cube app.

Examples:
Group 1: *Eco Explorer* – observing food chains in an ecosystem;
Group 2: *Galactic Explorer* – space colonies;
Group 3: *Mr. Body* – studying internal organs;
Group 4: *Engineering* – designing 3D models of bridges or buildings using *Tinkercad*.

The WOW! Moment

The teacher uses Merge Cube to project a 3D model of a virtual habitat, a beating heart, a building, or an atom in motion.

Exploration Activity

Students use the information they have explored to create a common product:

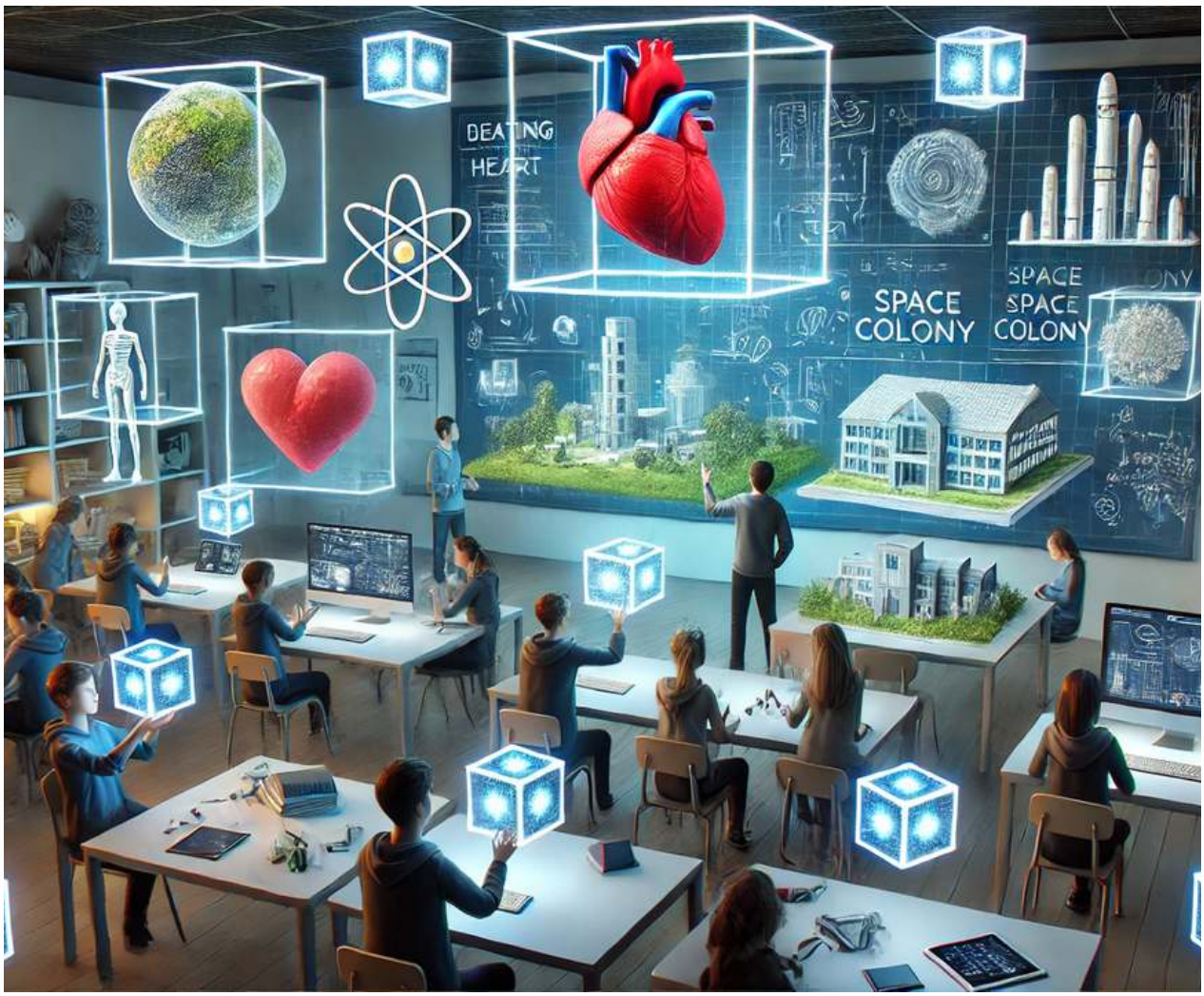
- A mini-guide for future space colonists;
- An explanatory video;
- A mini-play or a story based on the given theme;
- A plan or a sketch.

Presentation of the Results

Each group presents the result of their work:
The ecology group describes how to protect a habitat;
The space exploration group may present a day on a planet;
The anatomy group creates a poster about the function of a vital organ;
The engineering group presents the plan/sketch of a bridge or a building.

Conclusions

Students discuss what they have learned and how their experience with Merge Cube was. The teacher encourages discussions about the real-life applications of the technology and the knowledge gained.



Benefits for Students

- Learn complex topics through 3D AR;
- Boost interest, creativity, and confidence;
- Develop teamwork, critical thinking, and presentation skills.

Benefits for Teachers

- Make lessons interactive and tech-driven;
- Teach STEM in an integrated, easier way;
- Gain real-time feedback and digital skills.

Innovation in this Practice

- AR sparks curiosity and active learning;
- Connects STEM fields in real-world contexts;
- Adapts to student needs and themes.

Problems Solved with this Good Practice

- Low engagement and interest in science;
- Hard-to-understand concepts;
- Lack of hands-on, tech, and team-based learning.

Resources links:

Realitate augumentată
Tinkercad

Build and Manage your City with SimCity

Description:

Working with SimCity, teachers can use a variety of methods to stimulate students' creativity, critical thinking and problem-solving skills. Students work in groups to create a shared city and discuss solutions.

The WOW! Moment

„Secret Agent". One student is given a secret assignment to sabotage city planning (e.g. to promote polluting industries), while the others have to identify who is harming the city.



Keywords

Curiosity-driven learning; Inquiry-based education; Interactive learning; Student engagement; Collaboration.

Development of the Activity

Introducing the Topic

SimCity is more than just a game, it's a powerful simulation tool that puts you in the mayor’s seat. In this lesson, you’ll explore what it takes to create a successful, functioning city. You'll make decisions about city planning, manage budgets, solve unexpected problems, and balance the needs of your citizens.

The WOW! Moment

„Secret Agent". One student is given a secret assignment to sabotage city planning (e.g. to promote polluting industries), while the others have to identify who is harming the city.

Exploration Activity

Getting to know the SimCity environment.
Urban planning. Students work with SimCity to create their own cities.
Explain how to manage the city's budget, attract investment and solve the city's financial problems. Showing how the city responds to disasters, accidents, crime, pollution, resident dissatisfaction.
Discussed the challenges students groupe have faced in building their cities.

Presentation of the Results

Analysing real statistics. Allow students to compare their virtual city's statistics with those of the real city, discuss why they are different and what can be applied in reality.

Conclusion

SimCity helps you learn important life skills such as decision making, problem solving and strategic thinking. It is also an excellent tool to better understand urban management and sustainable development.

Benefits for Students

- Teaches problem-solving and decision-making that has a lasting impact.

Benefits for Teachers

- The teacher can initiate discussions about the consequences of the decisions in the virtual city and analyse how real cities face similar problems.

Innovation in this Practice

- It's a great example of how video games can be used as both a learning tool and a space for creative expression.

Problems Solved with this Good Practice

- Lack of real-world application;
- Limited problem-solving opportunities;
- Difficulty in developing life skills.

Resources links:

https://www.earthhero.org/en_GB/

6. Recommendations and Practical Guidelines

This final section outlines strategic recommendations and quality criteria for the implementation, adaptation, and transferability of educational best practices within the Wonder Learning for Digital Natives framework. These recommendations are grounded in key educational theories and inspired by the principles of inclusion, digital innovation, learner agency, and a pedagogy of wonder.

6.1. General Recommendations for Adaptation Across School Contexts

All practices presented in this booklet can be adapted to a wide range of school settings and age groups. To ensure successful implementation:

Start from the learner: Practices must begin with students' interests, questions, and rhythms (Piaget, L'Ecuyer). Their curiosity should drive the inquiry.

Respect diversity: Apply UDL principles to offer multiple means of engagement, representation, and expression (CAST, 2018). Ensure accessibility for students with SEN and linguistic or cultural differences.

Encourage teacher agency: Educators should have flexibility to adapt the sequence, tools, and goals of the practice to their local context and learners' profiles.

Foster a climate of wonder and presence: Embrace Catherine L'Ecuyer's call for meaningful, emotionally rich learning experiences that prioritize attention, silence, and admiration for reality.

Balance digital and experiential learning: Integrate technology meaningfully (TPACK, DigCompEdu), while maintaining authentic, embodied, and relational learning.

6.2. Quality Criteria for Design and Evaluation of Practices

To ensure the pedagogical soundness and innovation of each activity, practices should meet the following criteria:

Criterion	Description
Relevance	The practice is connected to learners' real-life contexts, interests, and contemporary challenges.
Inclusiveness	It accommodates diverse learning needs, with specific strategies for SEN, linguistic, and cultural diversity.
Student-Centredness	Learners are active agents: the practice promotes autonomy, participation, and co-construction of knowledge.
Wonder and Engagement	The activity evokes curiosity, emotional connection, surprise, or aesthetic appreciation (L'Ecuyer).
Interdisciplinarity	It integrates concepts, tools, or perspectives from multiple subjects or knowledge areas.
Digital Competence	It incorporates digital tools critically and creatively, aligned with the DigCompEdu framework.
Collaboration	The practice includes peer interaction, teamwork, and/or co-teaching between professionals.
Sustainability and Ethics	It promotes ecological awareness, ethical responsibility, and care for self, others, and the environment.
Scalability	It can be adapted and transferred to other age groups, disciplines, or school contexts.

6.3. Guidelines for Adaptation and Transferability

To maximize the impact and dissemination of best practices across schools and countries:

- **Use modular design:** Structure activities in flexible phases (as in the Wonder Learning sequence) to allow adaptation without losing coherence.
- **Document the process:** Keep records of adjustments, challenges, and outcomes to support reflection and knowledge sharing.
- **Involve all stakeholders:** Invite students, families, and community partners to co-create and adapt practices for relevance and ownership.
- **Leverage digital platforms:** Use tools like Padlet, Canva, eTwinning, or shared drives to facilitate collaborative implementation across schools or regions.
- **Foster teacher learning communities:** Encourage professional dialogue among educators through workshops, online exchanges, and reflective portfolios.
- **Test and evaluate:** Pilot the practice in a new context with formative evaluation. Use student feedback, observation, and rubrics to refine the approach.

These recommendations provide a roadmap for ensuring that *Educational Best Practices* are not only innovative and inspiring, but also scalable, inclusive, and sustainable. Rooted in theory and enriched by real classroom experiences across Europe, the Wonder Learning framework equips schools to respond to the evolving needs of digital natives - while preserving the essential humanity of education.

As L'Ecuyer reminds us, "The child is not a blank slate, but a person full of wonder." Let us therefore design practices that respect that wonder, and transform schools into spaces of curiosity, dignity, and shared meaning.

7. Practical Tools and Resources

To support the implementation of innovative teaching practices within the Wonder Learning for Digital Natives framework, this booklet includes a set of practical tools designed to guide planning, reflection, documentation, and evaluation. These resources help ensure that practices are theoretically aligned, pedagogically sound, and contextually adaptable.

7.1. Methodology for Selecting Best Practices

The document Methodology provides a structured and theoretically grounded guide for identifying, analyzing, and evaluating educational practices that align with the Wonder Learning approach. It functions as both a planning and self-assessment framework, including:

- Clear selection criteria, such as inquiry-based learning, creativity, inclusivity, scalability, and student engagement.
- A rubric-based evaluation tool, assigning weights and scores to practices across 7 dimensions (alignment with WL principles, feasibility, effectiveness, engagement, 21st-century skills, scalability, and teacher training needs).
- Guidelines for collecting practices from research, benchmarking, and lived classroom experiences.
- A step-by-step strategy for piloting and refining practices before transnational sharing.

This methodology promotes evidence-informed practice, grounded in constructivist theories (Piaget, Vygotsky), UDL, and digital competence models such as DigCompEdu and TPACK.

https://docs.google.com/document/d/1M41Px94otLhGsYY8GgqvTy6TXBUqQQwe/edit?usp=sharing&ouid=112125126379378401983&rtpof=true&sd=true

7.2. Good Practices Template

The “Good Practices Template” offers a simple, structured format to document innovative teaching practices suitable for the Wonder Learning approach. It can be used by teachers, trainers, or institutions for:

- Planning and documenting activities, from topic introduction to student presentations and conclusions.
- Highlighting the “WOW! Moment”, which is central to the Wonder Learning pedagogy and inspired by Catherine L’Ecuyer’s vision of emotionally rich, curiosity-driven learning.
- Capturing the benefits for students and teachers, innovative features, and problems addressed by the practice.

Tagging each activity with keywords and resource links to facilitate searchability and scalability across contexts.

This template also acts as a reflection and observation tool, supporting continuous improvement and adaptation by encouraging educators to articulate the pedagogical value and transformative potential of their practices.

Together, these two tools serve as anchors for reflective, collaborative, and transferable innovation. They help ensure that educational practices are not only engaging and inclusive, but also replicable, documentable, and aligned with contemporary educational goals. By using these resources, educators are empowered to design, share, and scale practices that inspire wonder, agency, and deeper learning across Europe.

https://docs.google.com/document/d/1A6-HTRU_61YcHfYM5QyapRXRzMP-lXjx/edit?usp=sharing&ouid=112125126379378401983&rtpof=true&sd=true

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Legislation and Policy Frameworks

- **UNESCO Education 2030 Agenda – SDG 4:** Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
- **European Pillar of Social Rights (2017):** Principles 1 and 11 on quality education and inclusion.
- **UN Convention on the Rights of Persons with Disabilities (2006)** – Article 24: Inclusive education.
- **Council of Europe Framework for Democratic Culture (2018):** Competences for democratic citizenship.
- **National strategies for inclusive education, digital transformation, and teacher training** (according to country context).

Key Institutional and Strategic Documents

- **European Commission (2017). DigCompEdu – The Digital Competence Framework for Educators.** https://joint-research-centre.ec.europa.eu/digcompedu_en
- **OECD (2019). OECD Learning Compass 2030: A framework for future-oriented education.** https://www.oecd.org/education/2030-project/
- **European Union (2018). Key Competences for Lifelong Learning.** https://data.europa.eu/doi/10.2766/291008
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Final words

As we conclude this booklet, we reflect with pride on the collaborative journey that brought these 34 good practices to life. Each contribution embodies the spirit of the **Wonder Learning for Digital Natives** initiative — fostering innovation, inclusion, and digital empowerment in education.

This brochure serves not only as a collection of effective and adaptable teaching methods, but also as a testament to what educators across Europe can achieve when united by a shared purpose: to make learning meaningful, engaging, and accessible for all students, including those with special educational needs.

By integrating the Wonder Learning approach, these practices promote curiosity, creativity, and critical thinking while building the digital competencies essential for today's classrooms. We hope these pages will serve as both inspiration and a practical guide for your teaching.

This is not the final step, but a foundation for future exploration, adaptation, and collaboration. We invite you to take these ideas further, share them widely, and continue shaping a learning environment where every student can thrive.

Project no. 2024-1-PT01-KA220-SCH-000254381
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Co-funded by
the European Union

Project no. 2024-1-PT01-KA220-SCH-000254381