

Braz. Dent. Sci. Events 2026:
Congress of Pedagogical Practices (2024)

BDS Brazilian Dental Science

Proceedings of the Congress of Pedagogical Practices

IV Classroom Research Symposium: Student
and teacher training;
III Meeting for the Dissemination of
Pedagogical Practices;
II Meeting on Neuroscience in education:
Overcoming challenges for more effective
learning



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UNIVERSIDADE ESTADUAL PAULISTA
"JÚLIO DE MESQUITA FILHO"
Instituto de Ciência e Tecnologia
Campus de São José dos Campos



Congress of Pedagogical Practices

IV Classroom Research Symposium: Student and teacher training;
III Meeting for the Dissemination of Pedagogical Practices;
II Meeting on Neuroscience in education: Overcoming challenges for more effective learning

June 22-23, 2024



WORDS FROM THE PRESIDENTS

The “4th edition of the Classroom Research Symposium: student and teacher training”, the “3rd Meeting for the Dissemination of Pedagogical Practices”, and the “2nd Neuroscience in Education Meeting: overcoming challenges for more effective learning” were organized by the Laboratory of Pedagogical Practices (LAPP) of the Institute of Science and Technology at São Paulo State University, ICT-Unesp, São José dos Campos, in partnership with the Graduate Program of the Piracicaba Dental School at the University of Campinas UNICAMP.

Its primary focus was the discussion and practical workshops on innovative pedagogical strategies, with a special emphasis on active learning methodologies and the fundamentals of neuroscience. Aimed at training future educators and faculty across various educational levels, the event also provided an opportunity to present research findings and share experiential reports developed in diverse educational contexts. The event was held primarily in person, featuring lectures, panel discussions, workshops, and an international workshop broadcast via a virtual platform.



This gathering proved to be a valuable opportunity for the exchange of knowledge, experiences, and reflections geared toward the enhancement of educational practices.

The publication of these proceedings represents an honor for the organizing team and reaffirms the event's commitment to the dissemination of pedagogical practices and the promotion of classroom research.

We hope this initiative will continue to inspire and contribute to strengthening the collective interest in improving education.



Profa. Dra. Marianne Spalding

President of the Congress of Pedagogical Practices



Profa. Dra. Fernanda Klein Marcondes

Vice-President of the Congress of Pedagogical Practices



TECHNICAL DATA

EVENT: Congress of Pedagogical Practices: IV Research Congress in the classroom: student and teacher training / III Meeting for the dissemination of pedagogical practices / II Meeting: Neuroscience in education: overcoming challenges for more effective learning

DATA: June 22-23, 2024.

LOCAL: Universidade Estadual Paulista - Instituto de Saúde e Tecnologia – Câmpus de São José dos Campos – Av. Eng. Francisco José Longo, 777 - Jardim São Dimas - São José dos Campos/SP - CEP 12245-000

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**4TH EDITION OF THE CLASSROOM RESEARCH SYMPOSIUM: STUDENT AND TEACHER TRAINING
3RD MEETING FOR THE DISSEMINATION OF PEDAGOGICAL PRACTICES AND 2ND NEUROSCIENCE IN
EDUCATION MEETING: OVERCOMING CHALLENGES FOR MORE EFFECTIVE LEARNING**

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Victoria Kelly Fonseca Tavares, MS, Postgraduate student

The Organizing Committee acknowledges that some of the works presented at this event address emerging or controversial topics within the fields of pedagogical practices and neuroscience. The Committee underscores that the views expressed are solely the responsibility of the authors, and that ongoing scientific debate regarding certain concepts, such as the so-called 'neuromyths', remains necessary.



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Schedule of activities – ICT Unesp 2024 22/07/2024			
Horário	Atividade	Palestrantes	LOCAL
7h30-8h00	Entrega dos materiais	-	Quadra
8h00-8h15	Cerimônia de abertura	-	
8h15-9h00	Palestra 1 – Neurociência e Educação: diálogos possíveis	Profa. Marília Albuquerque	Anfi 1
9h00-9h45	Palestra 2 – Modulando a consolidação da aprendizagem: o que nos dizem as evidências neurobiológicas	Profa. Pâmela Carpes	Anfi 1
9h45-10h15	Café comCiência	-	Quadra
10h15-11h00	Palestra 3 – Aprendizagem ativa e colaborativa para além do conteúdo	Prof. Ricardo Fragelli	Anfi 1
11h00-12h00	Mesa redonda		Anfi 1
12h00-14h00	Sessão Pôster		Quadra
14h00-15h45	Oficinas 1 – Aprendizagem ativa	Prof. Angelo Cortelazzo	Sala 1
	Oficina 2 – Pense & Fale “Portfólio reflexivo”	Prof. Roberto Iachite	Sala 2
	Oficina 3 - Recursos didáticos e as potencialidades para o processo de ensino e aprendizagem	Profa. Taitiány Bonzanini	Sala 3
	Oficina 4 – Desenvolvimento de Jogos interativos: do conceito à realidade	Profs. Sabrina, Brenda, Vinícius	CIEB: EE João Cursino
	Oficina 8 – MakerLab: Robôs escova (25 estudantes)* *Será realizada simultaneamente, caso ultrapasse 25 pessoas inscritas na Oficina 4	Profs. Ademir, Policarpo, Carlos	CIEB: EE João Cursino
15h45-16h15	Café comCiência		Quadra
16h15-18h	Oficina 5 – O uso de smartphones em sala de aula como ferramenta para aplicação de metodologias ativas	Profa. Kelly Luchi	Sala 1
	Oficina 6 - Guerra e paz: os desafios dos conflitos de gerações na escola	Profa. Ana Lia Anbinder	Sala 2
	Oficina 7 – Aprendizagem baseada em equipes	Prof. Rubens Tango	Sala 3
16h15-18h	Oficina 8 – MakerLab: Robôs escova (25 pessoas)	Profs. Ademir, Policarpo, Carlos	CIEB: EE João Cursino
	Oficina 4 – Jogos interativos (25 estudantes)* *Será realizada simultaneamente, caso ultrapasse 25 pessoas inscritas na Oficina 8	Profs. Sabrina, Brenda Vinícius	CIEB: EE João Cursino
18h-18h30	PREMIAÇÃO e Cerimônia de encerramento		
19h-22h	Happy hour – Turco Gordo (Rua Pedro de Toledo, 108 – Vila Ady Anna		

Schedule of activities – ICT Unesp 2024 23/07/2024			
9h-10h30	Workshop internacional online: “Cuidado humanizado em saúde: como educar a nova geração de profissionais?”	Prof. Leonardo Marchini	Controle Técnico: Anderson Mediação: Marianne





Scientific Research

FORMATIVE EVALUATION OF COMPETENCIES IN HEALTHCARE: USE OF BIODESIGN FOR INTERDISCIPLINARY MODELING OF HYBRID PROTOTYPES

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Objective: The objective was to prototype new hybrid models for formative evaluation of health competencies, exploring the potential of Biodesign. **Materials and Methods:** The activities were developed in an inter-unit college discipline, offered by the Polytechnic School of University of São Paulo (POLI-USP) and the University of São Paulo School of Medicine (FMUSP), called "Development of Medical-Hospital Solutions", having Biodesign methodology, developed by Stanford University, as the conceptual framework. Multidisciplinary teams from University of São Paulo (USP), linked to an Academic Consortium for Excellence in Undergraduate Education, were involved with Health Sciences, Performing Arts, Design and Engineering backgrounds, representing 50 undergraduate students, 5 undergraduate tutors, 3 postgraduate students, 5 faculty members and 3 external faculty members. The students worked in interdisciplinary groups during 28 synchronous virtual meetings, guided by the Identification and Invention stages described in the Biodesign process. **Results:** Led by active methodologies, the students identified and validated real needs, developing 6 innovative, applicable, and scalable prototypes, focused on hybrid learning and evaluation of interpersonal communication, healthcare planning, interprofessional sharing, ethics, decision-making, patient safety, and remote simulation of physical examination. **Conclusions:** The results demonstrated the potential of Biodesign for prototyping new evaluation processes, such as building plural spaces focused on student autonomy and creative processes, for the application and learning of softskills, such as problem-solving, decision-making, interdisciplinary work, and collaborative learning of common and specific competencies.

Keywords: Educational Measurement; Competency-Based Education; Biodesign; Social Skills; Clinica Competence.



HEALTH CONCEPTIONS AMONG FUTURE TEACHERS OF BIOLOGY, PHYSICAL EDUCATION, AND PEDAGOGY

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Objective: The World Health Organization (WHO) has established guidelines for the promotion of healthy schools, in a broad and integrated understanding, so that the implementation of these guidelines depends, among other factors, on the health conceptions held by the actors in the school community. Thus, the present study analyzed the conception of health among future teachers of Biology (n = 45), Physical Education (n = 31), and Pedagogy (n = 41), 68% of whom were female, enrolled in a public university in the state of São Paulo, Brazil. **Materials and Methods:** This is a qualitative exploratory study. Data collection was conducted online, and participants responded to two instruments: a) Characterization questionnaire; b) Questionnaire on health in schools. The data were analyzed based on categorical content analysis. **Results:** The results showed that the health conceptions were classified into seven categories with the following numbers of citations: General well-being (20); Physical and Mental (64); Physical and Social (2); Physical (7); Functionality (6); Holistic (15); Social (3). It is noteworthy that most participants revealed reductionist conceptions, focusing on one or two aspects advocated by the WHO, and only 16% adopted a holistic perception, considering physical, mental, and social aspects together. **Conclusions:** The results lead us to reflect on and recognize the urgent need to integrate and promote knowledge and discussions that acknowledge health as a complex, multidimensional, and intersectoral issue, so that health professionals and the school community can work together to contribute to the pressing need for re-signifying the concept within the educational context.

Keywords: Initial Teacher Education; School; Health.

Research Ethics Committee Number: 092587/2023



CREATION OF A 3D ANIMATION AS AN EDUCATIONAL TOOL TO SUPPORT THE COMPREHENSION OF ENAMEL DEVELOPMENT IN DENTAL EDUCATION

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Objective: This study aimed to develop a three-dimensional (3D) animation as an educational media tool targeted at first-year dental students, with the goal of enhancing their understanding of the enamel formation process (amelogenesis).

Materials and Methods: Following the development of a script describing the stages of amelogenesis, an undergraduate student researcher produced a 3D animation using the Blender 3D software. The educational impact of the animation on students' comprehension and academic performance was evaluated using a two-stage assessment. The study was carried out within the Histology and Embryology course unit of the undergraduate Dentistry program at São Paulo State University (UNESP), Brazil, and included 89 students enrolled in both full-time and evening tracks. A flipped classroom strategy was employed, wherein students initially viewed an asynchronous video lecture on amelogenesis, followed by completion of an online assessment to gauge initial content assimilation. During a subsequent in-person session, the 3D animation was presented, and the same assessment was re-administered. Finally, students completed a perception survey via Google Forms regarding the educational value of the 3D animation. **Results:** Fifty-eight students completed the perception survey. Among them, 92.8% (full-time) and 93.4% (evening) agreed that the animation facilitated learning; 94.85% and 89.5%, respectively, reported good informational and visual quality. Thirty-nine students participated in both assessment stages. A statistically significant improvement in scores was observed after viewing the animation, with $p=0.019$ (full-time) and $p=0.047$ (evening), according to the Wilcoxon and Mann-Whitney tests. **Conclusion:** The 3D animation proved to be a feasible and effective didactic tool, positively contributing to the learning process.

Keywords: Video-Audio Media, Amelogenesis, Students, Dental, Academic Performance, Histology

Research Ethics Committee Number - CAAE: 70919923.1.0000.0077



EFFECT OF BLENDED LEARNING ON THE LEARNING OF CARDIOVASCULAR PHYSIOLOGY AND TEST ANXIETY IN UNIVERSITY STUDENTS

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During emergency remote teaching, we observed that the combination of active learning strategies on digital platforms and formative assessments helped first-year Dental students to organize their study routines. **Objectives:** To evaluate the effect of blended learning on the learning of cardiovascular physiology and on test anxiety. **Materials and Methods:** The study included 41 students enrolled in the second semester of a Dentistry program at a public university. The teaching of cardiovascular physiology included short dialogic lectures combined with group discussions, blood pressure measurement, and an educational game, all conducted in class. Pre-class videos (Edpuzzle) and interactive lessons (Lt-Kuracloud) were assigned as individual out-of-class activities. Formative assessments were conducted both in class and through immediate feedback in online activities, with grades assigned for participation. Learning was assessed through cognitive gain, based on scores from pre- and post-tests. Anxiety levels were measured using the State-Trait Anxiety Inventory, applied during the first Physiology class (baseline level) and 15 minutes before the post-test. **Results:** The mean post-test score (7.99 ± 1.55) was higher than the pre-test score (4.40 ± 1.56 ; $p < 0.05$). These scores were used to calculate cognitive gain, which was classified as moderate (0.64 ± 0.24). There was no significant difference between anxiety levels before the post-test (46.51 ± 12.31) and baseline levels (45.85 ± 10.55). **Conclusions:** These results highlight the positive effects of combining active learning strategies in both in-person and online environments on promoting learning among university students.

Keywords: Higher education; Learning; Academic Test Performance.

Research Ethics Committee Number - CAAE: 42980515.0.0000.5418



EFFECTS OF A NEUROPSYCHOPEDAGOGICAL EXECUTIVE FUNCTION PROGRAM ON THE ACADEMIC PERFORMANCE OF STUDENTS

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Objective: To evaluate the effects of a neuropsychopedagogical executive function program (NEXFP) on the academic performance of schoolchildren with and without learning difficulties (LD). **Materials and Methods:** The study involved 6,235 students aged 7 to 9 years (± 8.57), divided into four groups: A1 (1,645 without LD, did not participate in the NEXFP), A2 (1,644 without LD, participated in the NEXFP), B1 (1,518 with LD, did not participate in the NEXFP), and B2 (1,518 with LD, participated in the NEXFP). The NEXFP consisted of 20 activities focused on motor development, executive functions, and mindfulness, delivered in 18 classroom sessions of 15 minutes each, conducted by the teacher. The following protocols were used to assess executive functioning and academic performance before and after the program: (a) Child Inhibitory Control Screening Scale (ERCIC); (b) Neuropsychopedagogical Screening Scale for Working Memory (ETNMO); and (c) Academic Performance Assessment (AVRA). All procedures were approved by the UFRJ Research Ethics Committee (protocol no. 1.394.198). **Results:** Students in group A2 showed superior performance at post-test: 19% ($p < 0.01$) in the ERCIC, 16% ($p < 0.01$) in the ETNMO, and 14% ($p < 0.05$) in the AVRA compared to group A1. In group B2, performance improved by 28% ($p < 0.01$) in the ERCIC, 31% ($p < 0.01$) in the ETNMO, and 25% ($p < 0.01$) in the AVRA compared to group B1. **Conclusion:** The NEXFP demonstrated significant effectiveness in improving the academic performance of schoolchildren, underscoring the relevance of neuropsychopedagogical interventions that integrate motor development, executive functions, and mindfulness, particularly in school settings.

Keywords: Students; Executive Function; Academic Achievement.



EDUCATIONAL GAME "ECOLOGICAL RELATIONSHIPS": EFFECT ON LEARNING AND STUDENT PERCEPTION

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Game-based learning is a methodology that can spark interest and enhance student learning. **Objective:** To analyze the effect on learning and student perception of replacing a theoretical class with an educational game activity called "Ecological Relationships," which consists of 12 photos and 12 cards naming different ecological interactions.

Materials and Methods: The study included 31 first-year high school students from a public school in the state of São Paulo, Brazil. In lesson 1, students completed a pre-test on ecological relationships and, divided into groups, analyzed the game photos to identify the interactions occurring between living beings. Then, they received the cards to match with the photos, drawing on their prior knowledge. This was followed by a dialogic explanation by the teacher on the topic. In lesson 2, the groups used the images and cards in a memory game format. In lesson 3, each student completed a post-test and rated the usefulness of the game for their learning on a scale from 0 (not helpful) to 10 (very helpful).

Results: The average perception score was 8.07 ± 1.49 . Pre- and post-test scores were used to calculate cognitive gain, which was classified as moderate (0.47 ± 0.31). There was a positive correlation between student perception and cognitive gain ($R^2=0.21$, $p<0.05$).

Conclusions: These results confirm the educational game's contribution to learning and suggest that learning about ecological relationships is, at least in part, related to students' opinions about the educational game used.

Keywords: High school; Biology; Gamification

Research Ethics Committee Number - CAAE: 0873219.8.0000.5418



MODALITIES OF IN-PERSON AND EMERGENCY REMOTE TEACHING: PERCEPTION AND EXPERIENCES OF DENTISTRY UNDERGRADUATES

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Objective: The aim of this study was to acknowledge how dental students perceive the differences between online (remote) and face-to-face courses taught during the pandemic period. **Material and methods:** In order to make the comparison possible, 30 undergraduates who had taken certain subjects remotely and returned to them as monitors in the face-to-face modality took part in the research after agreeing to an Informed Consent Form. The participants answered a structured interview containing 25 questions previously prepared and validated in a pilot sample. The questions dealt with difficulties encountered during the remote study period and the differences felt between face-to-face and distance learning. The data was analyzed using the Chi-Square independence and ChiSquare partition tests, significance level $\alpha=0.05$ (JAMOV program – version 2.3.17). **Results:** It was observed that 90% of respondents had access to the internet during remote teaching and 86.7% did not consider the use of digital tools to be a challenge. However, 73.4% reported having difficulty staying focused during remote teaching. The majority (96.6%) reported seeing a difference in the way they learned during face-to-face tutoring compared to the remote teaching period, with 90% seeing the face-to-face revision of the subject content as a differential in their academic training. **Conclusion:** The tools provided by the institution for remote teaching enabled a good understanding of the content taught. However, in the perception of the undergraduates, the face-to-face modality is more effective and fruitful. The knowledge generated by the research provides an opportunity to seek improvements in the teaching-learning process.

Keywords: Dental students; Dental education; Higher education institution.

Research Ethics Committee Number - CAAE: 65655422.9.0000.0077



PEDAGOGICAL WORKSHOPS: A REFLECTION IN THE LIGHT OF ACTIVE METHODOLOGIES

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Pedagogical workshops are practical and dynamic educational activities aimed at fostering knowledge construction in a collaborative and participatory way. They are characterized by the active interaction of participants, who work in groups to solve problems, develop projects, or explore new content. **Objective:** This study analyzed the relevance of pedagogical workshops, with a focus on active methodologies, in order to understand how such workshops enhance learning in a dynamic and participatory manner, contributing to teacher education and the development of educational practices. **Methodology:** A bibliographic review and theoretical analysis were conducted to ground the research. The method involved the exploration of active methodology concepts, such as problem-based learning, highlighting the importance of active student participation in the teaching-learning process. **Results:** The literature review showed that pedagogical workshops based on active methodologies promote student autonomy, stimulate critical reflection, and foster the collective construction of knowledge. Moreover, the adoption of such methodologies enables the integration of different knowledge areas, offering an interdisciplinary and contextualized perspective on teaching. **Conclusion:** Pedagogical workshops also contribute to the development of socio-emotional skills, such as communication, cooperation, and conflict resolution—essential for students' holistic formation as citizens. Another significant aspect is the role of the teacher as a mediator and facilitator of the learning process, encouraging active participation and student agency. It is concluded that these workshops are essential for transforming education, as they create a collaborative and engaging learning environment, crucial for the comprehensive development of students.

Keywords: Pedagogical Workshops; Active Methodologies; Teacher Education; Participatory Learning; Innovative Education.



TRANSLATION AND CULTURAL ADAPTATION OF THE 'INDEX OF LEARNING STYLES' INSTRUMENT INTO BRAZILIAN PORTUGUESE

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Objective: The 'Index of Learning Styles' (ILS) instrument was originally developed in English to assess learning styles. This study aimed to translate and culturally adapt the ILS to Brazilian Portuguese. **Methodology:** The ILS consists of 44 items, with two response options, which identify learning preferences in four dimensions (11 items each): Active/Reflective, Sensory/Intuitive, Visual/Verbal, and Sequential/Global. Scores can range from 1 to 11 points for each domain, and the highest value is considered predominant. The total score ranges from: 1 to 3 points, "slight" preference in both dimensions; 5 to 7, "moderate" preference for one of the dimensions; and 9 to 11, "strong" preference for one the dimensions. The questionnaire was translated into Brazilian Portuguese, back-translated into English, and reviewed by the Committee of Experts in the field of Dentistry and Education. In the pre-test, the ILS was self-administered by 10 mothers of patients at the Pediatric Dentistry Clinic at Universidade Estadual Paulista (UNESP), Instituto de Ciência e Tecnologia, Câmpus São José dos Campos. **Results:** The Expert Review Committee compared the original, translated (T1, T2), and back-translated (BT1, BT2) versions and recommended some changes in order to achieve a good understanding of the items. In the pre-test, items 27, 32, 38, and 42 of the first version (V1) were not understood by more than 15% of the sample and were revised by the Review Committee. V2 was applied to a new sample of 10 mothers, with comprehension greater than 85% for all items. **Conclusion:** The Brazilian version of the ILS was culturally adapted for the population evaluated.

Keywords: Learning; Cross-Cultural Comparison; Surveys and Questionnaires; Translating

Research Ethics Committee Number - CAAE: 69813623.0.0000.0077





Experience Report

ADAPTED TEAM LEARNING AS AN EVALUATION METHOD IN ANATOMY: STUDENTS' PERCEPTION

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Objectives: To share the perceptions of first-year undergraduates in a mixed-gender Health Sciences classroom at a private university regarding an assessment activity based on the Team-Based Learning (TBL) format. **Methodology:** Students in Biomedicine, Nursing, Pharmacy, and Physical Therapy, who were taking the Human Anatomy I course, attended lectures on the following topics: planes and axes, skeletal, articular, muscular, and circulatory systems. Afterwards, they completed an assessment activity based on the TBL format. In the first stage, they answered an 8-question multiple-choice test individually and without consultation and completed an answer sheet. In the second stage, they were divided into groups of 5-6 students and received an answer card. During the second stage, the students had the opportunity to discuss the questions, select their answers, and receive immediate feedback on the answer card. The scores obtained, individually and as a group, were converted into grades. Perceptions of the activity were assessed through an electronic questionnaire. **Results and Final Considerations:** The majority of the 45 students agreed that: interaction with peers contributed to clarifying doubts and improving learning (95.5%); the activity helped identify areas of the material that needed further study (95.5%); it contributed to preparation for the bimonthly assessment (71.1%); and that activities in this format made assessment and learning easier (86.6%). Thus, the students' positive perception demonstrated that the active methodology can be successfully used as an assessment method.

Keywords: Universities; Learning; Problem-Based Learning; Collective Efficacy.



CURRICULAR EXTENSION ACTIVITY IN THE FIRST YEAR OF THE DENTISTRY PROGRAM: AN EXPERIENCE REPORT ON EDUCATIONAL ACTIVITIES IN ELEMENTARY SCHOOL

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Objectives: The primary objective of this report is to present the experience of a "Curricular University Extension Activity" (ACEU), conducted within the context of three first-year courses in the Dentistry program. The activity aimed to contribute to the learning process and to spark interest in basic health sciences among elementary school students. **Methodology:** The activity took place during the "Health with Science" event held at Ana Cândida de Barros Molina Elementary School, in São José dos Campos, SP, during the Children's Day week. Twenty educational games were presented at the event. These games were developed as part of the ACEU by first-year students from the Full-Time and Evening Dentistry program. **Results:** The event engaged 256 students from grades 6th to 9th grades (middle school). There was a high level of participation and enthusiasm throughout the event, with the children actively engaging in the proposed games. Immediate feedback from the school's teachers was also highly positive. **Final Considerations:** The activities were conducted in an engaging and enjoyable manner and were widely appreciated by the students, contributing to a positive and motivating learning environment. The ACEU enabled an exchange between students from different educational levels, also providing opportunities for the development of social awareness and socio-emotional skills among the undergraduate students.

Keywords: Universities; Education, Primary and Secondary; Community-Institutional Relations, Students.



SIMULATION SCENARIO FOR TEACHING THE SPIKES PROTOCOL FOR BREAKING BAD NEWS: EXPERIENCE REPORT

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Objective: This study aims to document the experience of using a Simulation Scenario to teach the SPIKES Protocol for Breaking Bad News, applied to third-year Dentistry students in the oral medicine course. **Methodology:** Initially, the six steps of the SPIKES protocol—Setting up, Perception, Invitation, Knowledge, Emotion, and Strategy & Summary—were presented in a theoretical lecture. Subsequently, one student was invited to act as the Dentist in the Simulation Scenario. The activity also included two additional characters: the patient and his wife, played by members of the course team. The purpose of the scenario was for the student to communicate a diagnosis of oral cancer, following the SPIKES protocol. After the scenario concluded, a debriefing session was held to discuss students' perceptions. Discussion topics included: how students felt during the scene, how these feelings influenced decision-making, strengths and weaknesses of the interaction, alternative approaches that could have been taken, as well as real-world connections and lessons learned. **Results:** The activity was well-received and generated active student participation, especially during the discussion phase. **Final Considerations:** Simulation constitutes a pedagogical methodology that facilitates active learning by integrating complex theoretical constructs with practical competencies. In the context of teaching the SPIKES Protocol, simulation enables learners to engage in realistic scenarios involving the communication of a diagnosis—an interaction that necessitates a combination of advanced technical skills, professional responsibility, and empathetic conduct.

Keywords: Active learning; Health communication; Dental education; Empathy; Pedagogical practice.



CIEBP CONNECTING GENERATIONS: MIDDLE SCHOOL STUDENTS SHARE ROBOTICS WITH ELEMENTARY SCHOOL STUDENTS AT E. E. MARILDA F.B.B. PEREIRA

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Objective: The aim of this study was to report the experience of training middle school students from the Marilda Ferreira de Brito Barros Pereira State School at the Center for Innovation in Basic Education of São Paulo (CIEBP), and the subsequent sharing of this knowledge with 5th grade students. **Materials and Methods:** During the robotics training at CIEBP, five weekly sessions were held, each lasting 2 hours, providing the replicator students with an immersive learning experience. After this training, the replicators led weekly sessions at the school, each lasting 1 hour and 30 minutes, ensuring regular and focused interaction with the 5th grade students. **Results:** The replicator students developed a collaborative programming project using Scratch with the 5th graders. Throughout the project, both groups demonstrated great interest and active participation. This hands-on approach reinforced the understanding of robotics and programming concepts among the students. **Final Considerations:** The training and teaching experience at CIEBP was highly positive, enabling middle school students to develop skills in robotics and programming, and later effectively pass this knowledge on to the 5th grade students. The collaborative Scratch project not only strengthened the understanding of technical concepts but also encouraged teamwork and creativity. This model of training and knowledge sharing proved to be a valuable strategy that can serve as a reference for future educational initiatives.

Keywords: Replicator students; Programming; Robotics; Scratch.



RESEARCHER COMMUNITY: EXPERIENCE OF TEACHING AND LEARNING THROUGH RESEARCH IN HIGHER EDUCATION

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According to Article 43 of the Brazilian Law of Guidelines and Bases of National Education (LDB nº 9394/96), higher education is intended to stimulate scientific research and investigation. **Objectives:** Based on this premise, this study aims to report the experiences of a community of practice focused on scientific writing at a Higher Education Institution in São José dos Campos, State of São Paulo, through the project "Researcher Community." **Methodology:** Following the theoretical contributions provided by Demo (2015), Wengel (2023), Fiorentini (2018), Minayo (2007), among other authors, this study employs a qualitative methodological approach, grounded in participant observation and bibliographic research. According to Gil (2022), participant observation is characterized by the researcher's direct engagement with the studied phenomenon, aiming to gather data about the reality experienced by individuals within their context. **Results:** Initially, this study presents the challenges and achievements encountered during the project's implementation. In the second phase, we describe the initiatives and experiences of students and professors in teaching and learning through research. In the third stage, we contribute to the discussion on the relevance of teaching and learning projects that promote research in higher education. **Final considerations:** The final reflections emphasize the contributions of research as an important tool for both students and faculty to develop critical and self-critical thinking regarding their practices, while also encouraging continuous professional development.

Keywords: Research; Teacher Education; Pre-service Teachers; Community of Practice.



COLOR AND TEXTURE OF MODELING CLAY AS A COMPLEMENTARY APPROACH IN STOMATOLOGY EDUCATION FOR UNDERGRADUATE DENTAL STUDENTS: AN EXPERIENCE REPORT

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Objective: To report on the experience of using modeling clay as a complementary teaching strategy during the initial classes of the Stomatology course, delivered separately to two cohorts, afternoon (28 students) and full-time (39 students), both in the third year of the undergraduate Dentistry program at the Universidade Estadual Paulista (UNESP), Instituto de Ciência e Tecnologia, Câmpus de São José dos Campos Campus, São Paulo, Brasil. **Methodology:** Theoretical content regarding Basic Lesions was initially presented, followed by a quiz aimed to encourage participation, especially from students who had previously studied the topic in Pathology. Subsequently, students were divided into groups and instructed to apply their theoretical knowledge through simulating lesions using modeling clay. The materials were purchased by the class representative, with the cost shared among all students. The colors used included pink (representing normal mucosal coloration), brown (for pigmented lesions), and white (for white lesions). The activity was conducted in the classroom and lasted approximately two hours. **Results:** The approach was positively received by both groups. Students engaged attentively in modeling a variety of lesions and anatomical structures of the oral cavity using the proposed materials. The high level of participation, along with spontaneous feedback, such as “best class”, reflected the effectiveness of the activity in the promotion of the student engagement and reinforcing the learning of Stomatology content. **Final considerations:** The use of modeling clay proved to be an effective complementary tool for learning about Basic Lesions in Stomatology. It facilitated content retention, fostered active student participation, and contributed to a more engaging and less rigid learning environment. Additionally, modeling clay is a low-cost, reusable material, making it a practical and accessible resource for educational settings.

Keywords: Health Education, Dental; Universities; Learning; Color; Touch.



UNVEILING HISTOLOGY: AN INVERTED AND DYNAMIC APPROACH TO EDUCATION IN DENTISTRY

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Objective: This experience aimed to train students in assembling the stages of histological processing, using the flipped classroom methodology in an engaging way, encouraging the active search for materials to complete the task. **Methodology** Students from the Histology course in Dentistry at UNESP participated in this study. First, at home, they watched a video about the stages of histological processing. At the university, they were divided into groups, each responsible for a specific stage. The materials necessary to reproduce the steps were placed at the front of the classroom, and students were challenged to collect everything needed to assemble their stage, in an environment inspired by the TV show "MasterChef". **Results** The students gave positive feedback, indicating that approaches promoting critical thinking and practical application of knowledge are more motivating. The flipped classroom methodology proved especially effective, transferring content transmission outside the classroom and allowing face-to-face time to be dedicated to hands-on knowledge application. **Final Considerations** Despite the challenges, the experiment revealed significant benefits, including increased engagement, autonomy, interaction, and teamwork. The results highlighted the effectiveness of innovative pedagogical approaches in student training, promoting more effective and stimulating learning.

Keywords: Learning; Higher education; Dentistry.



SCIENTIFIC METHODOLOGY AND WRITING WITHOUT FEAR FOR HIGH SCHOOL STUDENTS: AN EXPERIENCE REPORT

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Objective. To report the experience of teaching scientific methodology and writing, using accessible language, to public high school students. **Methodology.** A workshop entitled “*Scientific methodology and writing without fear*” was conducted as part of the program funded by the PROPG/PROEC 56/2023-rectified call of São Paulo State University (UNESP), Brazil, with the participation of 26 students enrolled in the Summer School Program “*Exploring the mind: introduction to neuroscience for high school students*”. The workshop addressed reliable online sources, search strategies, and academic writing guidelines. Five scientific articles in Portuguese were selected from the PubMed database using the keyword “neurosciences.” The students were divided into five groups, received the articles and a summary template. After discussing the texts with the support of the professors, the groups began drafting the summaries. At the end, an evaluation was conducted via Google Forms, using a 0–5 scale. **Results.** Students demonstrated difficulty in organizing the texts, and only one group managed to complete a draft abstract. There was a frequent demand for faculty support in understanding the articles. Nevertheless, the evaluation indicated a high level of satisfaction: 88.5% assigned the maximum score and 11.5% assigned a score of 4. **Final considerations.** Scientific literacy is feasible even at the initial stages of education; however, adequate time allocation is required to allow the full development of activities. Encouragement, close supervision, and positive reinforcement proved to be essential factors for student engagement.

Keywords: *Methodology as a Subject; Education, Primary and Secondary; Scientific Writing; Scientific Publication*



UNVEILING HORIZONS: THE IMPACT OF EDUCATIONAL GAMES ON THE PERCEPTION OF AFRICAN HISTORY - A CASE STUDY

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Objective: African history has often been overlooked or marginalized within Brazilian education, leading to a distorted and incomplete understanding of the continent's rich past—and, by extension, of Brazil's own historical development. To address this issue, the game *"Memories of the Continent – An African Odyssey"* was developed. **Methodology:** The game featured a board shaped like the African continent, where students, guided by an educator, engaged in various challenges and interactive activities. These tasks encompassed a wide array of themes related to Africa's diverse and dynamic history. The goal was to foster meaningful and engaging learning, sparking curiosity and deepening students' understanding of Africa's pivotal role in world history. **Results:** The game proved to be an effective educational tool, successfully engaging students and enhancing their comprehension of African history. **Final Considerations:** By presenting African history in an interactive and compelling format, the game made a significant contribution toward addressing the historical neglect found in the Brazilian curriculum. The results demonstrated increased student engagement and a more nuanced, contextualized understanding of Africa's historical legacy, ultimately encouraging a deeper appreciation of the continent's influence on the formation of Brazilian identity.

Keywords: Law No. 10.639; History Education; African History; Active Methodologies; Gamification.



CONTINUING EDUCATION IN EVIDENCE-BASED LITERACY

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Objective: This paper outlines a two-year journey in continuing education centered on evidence-based literacy conducted within a municipal public school in the city of São Paulo. **Methodology:** This research involved ten elementary school teachers, from grades 1 through 5. The study included lectures and workshops, each lasting 3 hours, conducted bi-monthly during the years 2022 and 2023. The training sessions focused on topics derived from theories and practices grounded in the cognitive science of reading, an emerging interdisciplinary field that elucidates the mechanisms of literacy acquisition in the brain — specifically, how individuals learn to read. The educators' motivation for participating in the training stemmed from the ongoing challenges faced by students in mastering reading and writing skills. **Results:** The intervention led to modifications in instructional methods, including the daily organization of phonological awareness strategies and the direct instruction of graphemes and phonemes. These modifications enhanced literacy levels among elementary students and solidified reading and writing abilities in upper-grade students, as evidenced by one of the city's external assessments. These assessments indicated improved performance compared to previous years. **Final considerations:** Evidence-based literacy allows educators to integrate more effective approaches, which can mitigate future academic losses for elementary school students.

Keywords: Neuroscience; Basic education; Pedagogy; in-service training; learning.



SUCCESS STORIES: INSPIRATION FOR PUBLIC HIGH SCHOOL STUDENTS

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Success stories shared with adolescents can serve as powerful sources of inspiration and motivation. One of the activities in a vacation course, "Exploring the Mind: Introduction to Neuroscience for High School Students", was to present inspiring journeys of undergraduate students, graduate students, and faculty members to participants. **Objectives:** The aim of this activity was to motivate public high school students and to broaden their understanding of the opportunities available in academic and scientific careers. **Methodology:** The course was held during the January vacation period, with a total of 40 hours, for 27 students previously approved in a selection process. On the last day of the course, presentations were given by former public-school students who shared examples of difficulties faced, challenges overcome, and achievements attained. **Results:** The activity was able to move the students, with some even expressing visible emotion. At the end of the activity, students completed an evaluation form, with a 96.2% approval rate. Feedback indicated a positive experience, highlighting statements such as: "The journeys inspired me to continue my own," "Best experience of my life," and "With effort and dedication, I can achieve my dreams." **Final Considerations:** The high approval rate reveals the positive impact that these stories had on students' perspectives. Other studies in the literature show that such actions increase students' confidence, help them face challenges, and improve their chances of achieving academic goals. Therefore, success stories from individuals who have overcome similar obstacles can enhance students' self-confidence, resilience, and academic aspirations.

Keywords: Students; High school; Motivation; Courses; Case Reports; University.



EDUCATIONAL GAMES DESIGNED BY UNIVERSITY STUDENTS FOR LEARNERS IN BASIC EDUCATION

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Objectives: This experience report presents an initiative in which first-year dentistry students collaboratively produced educational games as a University Extension Curricular Activity. This report aimed to stimulate learning, creativity, social awareness, responsibility, teamwork, and empathy among undergraduates. **Methodology:** Eighty-seven students from both full-time and evening classes were divided into groups of approximately five members and developed 51 highly diverse games targeted at basic education students. The content covered Anatomy, Histology & Embryology and Microbiology & Immunology. Some games were adaptations of existing ones, while others were entirely original. **Results:** The games developed included board games, card games, rope-based games, hula hoop activities, guessing games, memory games, assembly games, among others. Each group created a unique name, produced an explanatory video, and prepared a rules manual. The games were evaluated by faculty members of the Pedagogical Practices Laboratory (LAPP) at the Institute of Science and Technology, São Paulo State University. The top 20 games were selected for presentation at a local school. Final evaluation of the activity considered preparation and execution scores, as well as peer and self-assessments. Rubrics were established and communicated to the students in advance. **Final Considerations:** The creation of the games required students to study the content, apply creativity, and collaborate effectively as a team. Educational games promote playful learning and may contribute to improvements in executive functions and planning skills.

Keywords: Games, Experimental; Students, Dental; Universities; Education, Primary and Secondary



ACTIVE METHODOLOGY IN DENTAL EDUCATION: TEACHING BRUSHING TECHNIQUES THROUGH CARDS

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Objectives: Within the context of the Dentistry undergraduate program at UNESP – São José dos Campos, in the discipline of Periodontology, effective learning of toothbrushing techniques is essential for promoting oral health and preventing periodontal diseases and caries. Seeking a dynamic and participatory approach, we developed an active methodology that directly engaged students in learning different toothbrushing techniques.

Methodology: The activity was carried out in a single 90-minute class. Following a lecture on toothbrushing techniques, the 30 fifth-semester students had 20 minutes to organize themselves into six groups, with each group drawing from a brown paper box the cards corresponding to a specific technique. They then had 10 minutes to discuss and prepare. Each group demonstrated the assigned technique using a dental mannequin (provided by Colgate) and a toothbrush. During the presentations, the students explained the key steps of the technique. **Results:** As a result of this active methodology, there was a notable increase in student engagement during the learning sessions involving the cards. Students displayed greater confidence in applying the toothbrushing techniques and a deeper understanding of the benefits associated with each specific approach. **Final Considerations:** As this was a proposal for an active methodology on a mechanically oriented topic, its evaluation was based on student feedback. The students provided positive feedback, indicating that the methodology was effective in teaching the practical skills required for dental practice.

Keywords: methodology; educational activities; toothbrushing; problem-based learning.



ACTIVE METHODOLOGY FOR THE STUDY OF FACIAL BONES AND MUSCLES

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Objective: This study aimed to describe an active and innovative methodology for identifying and memorizing the bones and muscles of the face.

Materials and Methods: Each student was provided with a Styrofoam model. After theoretical classes based on recommended literature and laboratory studies, students reproduced and painted the contours of the facial bones on the model using acrylic paint, assigning a distinct color to each bone. Sutures were outlined with permanent markers and labeled using tags. Colored strings and pins were then used to construct the facial muscles, carefully depicting their origin, insertion, layering, and overlapping, which facilitated the understanding of muscle fiber depth. Additional tags were added to identify each muscle. All stages were documented photographically for reference throughout the learning process. **Results:** The practical activities engaged the cognitive domain of application, fostering more meaningful and creative learning. This methodology was implemented with 78 first-year dental students at a private university during the Head and Neck Anatomy course, alongside anatomical specimens and other complementary educational resources. All students successfully completed the proposed. **Conclusion:** The methodology applied to the study of anatomical structures proved to be a promising strategy for teaching head anatomy in dentistry. It provided a practical and visual experience that enhanced comprehension of anatomical knowledge essential to future clinical practice.

Keywords: Dental education; Anatomy; Anatomical Models; Learning models.



MULTIPLIERS OF THE FUTURE: STUDENTS TRANSFORMING TODAY TO IMPACT TOMORROW

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Objective: The project aimed to integrate the principles of Education 5.0, placing students at the center of the educational process, and valuing technology, creativity, and socio-emotional development. A fundamental part of this approach was the use of the Scratch platform, which allowed students to explore programming concepts in a playful and creative way. **Methodology:** The project's methodology was based on a combination of theoretical and practical teaching. Initially, students participated in weekly sessions with instructors from CIEBP (Center for Innovation in Basic Education of São Paulo), who guided them through the topic. Then, students applied this knowledge by developing practical projects. The process was collaborative, encouraging teamwork and the exchange of ideas. **Results:** The projects were evaluated based on criteria such as social impact and engagement with the school community, ensuring that students not only learned but also witnessed the outcomes of their efforts. **Final considerations:** The initiative proved to be a powerful catalyst for positive change, highlighting the potential of students as protagonists of social transformation. These multipliers of the future demonstrated that, with proper support, it is possible to create a ripple effect of improvements, significantly impacting the school environment and beyond. This project reaffirmed the importance of student-centered education capable of preparing conscious and empowered individuals to build a better and more inclusive tomorrow.

Keywords: Active methodologies; Educational processes; Student protagonism; Scratch.



CARBON FOOTPRINT – A PEDAGOGICAL WORKSHOP DESIGN ON CLIMATE CHANGE

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Pedagogical workshops stand out as effective methodologies in the teaching and learning process by fostering student agency. This abstract presents the design process of a workshop on climate change. **Objective:** The “Carbon Footprint” workshop aims to train pre-service teachers to understand the factors contributing to climate change. **Methodology:** The structured stages are designed to maximize participant engagement and learning over the course of three hours. The session begins with a welcome and an icebreaker activity called “Climate Brainstorm,” in which participants share their perceptions of climate change on a visual panel. This is followed by a presentation that combines dialogical exposition with videos and animations, as well as a quiz to reinforce key concepts. Working in groups, participants create a “Map of Causes” to promote a visual and collaborative analysis of human actions and their consequences. The workshop also includes a hands-on activity on carbon footprint, where participants simulate their daily activities to calculate their footprint through a game involving different stations representing everyday scenarios. **Results:** Participants are expected to gain an understanding of the causes and consequences of climate change, develop skills to critically analyze human actions contributing to the phenomenon, and increase their awareness of the importance of reducing their carbon footprint. **Considerations:** The workshop offers a rich and dynamic experience, equipping participants to address climate issues effectively and engagingly in their pedagogical practices. The use of active and interactive methodologies enhances knowledge retention and fosters critical reflection on socio-environmental responsibility.

Keywords: Climate Change; Environmental Education; Carbon Footprint; Sustainability; Teacher Education.



BRAIN PLASTICITY IN THE RETENTION OF HISTORICAL KNOWLEDGE: ALTERNATION OF THINKING MODES

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Objective: To investigate the influence of alternating between focused and diffuse modes of thinking on the retention of knowledge by 11th-grade students, based on learning acquired in the 9th grade in history. **Material and Method:** During the 9th grade, activities were implemented with the aim of promoting alternation between modes of thinking. The teacher encouraged periods of intense concentration, followed by moments of relaxation through interventions such as questions, comments, or light moments. In total, 23 students participated in these activities. **Results:** Of the 23 students involved, 18 continued into high school. Of these, 14 showed significant retention of the topics covered, recalling not only fundamental concepts but also examples, recommended video references, and even metaphors used. They presented consistent performance in assessments, suggesting the effectiveness of the method in consolidating long-term memory. **Final Considerations:** Alternating between modes of thinking is crucial for knowledge retention, promoting an impact on attentional level and consequently optimizing long-term memory. These findings highlight the importance of pedagogical strategies that consider students' cognitive dynamics to enhance the teaching-learning process.

Keywords: Knowledge retention; Concentration alternation; Brain plasticity; Teaching strategies; Teaching-learning.



TEACHING STRATEGY FOR INTERPRETING HISTOLOGICAL SECTIONS

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The traditional teaching method predominates in higher education, but the profile of undergraduates is constantly changing, requiring new teaching strategies. Histology, a basic subject in the health sciences, covers the microscopic, structural, morphological and functional aspects of tissues, as well as their relationship with organs and systems. Traditionally, practical classes are held by viewing sections under optical microscopes, providing two-dimensional images of the structures. **Objectives:** This experience report aims to present a teaching strategy designed to enhance student's ability to analyze and interpret microscopic sections during histology laboratory sessions. The approach emphasizes the three-dimensional nature of structures, fostering a deeper understanding of spatial relationships and morphological features. **Methodology:** This pedagogical practice is carried out at the beginning of the school term for students entering the Dentistry course at Unesp's Institute of Science and Technology. The students are divided into pairs and, by making transverse, longitudinal and oblique cuts of objects and foods, such as boiled eggs, tangerines, kiwi fruit, chayote, carrots and plastic hoses, they observe and compare the different aspects of the structures, according to the cutting plan. **Results:** This method makes it possible to analogize sections of macroscopic structures with histological sections, making it easier to interpret and assimilate the content. At the end, students are given a sheet to check their learning, with drawn structures and dotted lines, so that they can represent them on paper. **Final considerations:** The students demonstrate an understanding of the different aspects of cuts with this activity. Adopting new teaching strategies can help promote greater engagement and facilitate student learning.

Keywords: Teaching; Optical Microscopy; Innovation Capacity; Histology; Students.



STUDENT PROTAGONISM IN HISTOLOGY EDUCATION: EXPERIENCE WITH FLIPPED CLASSROOM AND GUIDED SEMINARS

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Objective: This experience aimed to encourage undergraduate dental students to engage in autonomous and collaborative learning, fostering student protagonism in the construction of knowledge. **Methodology:** The activity was conducted in the Histology and Embryology course with 87 undergraduate students, using the flipped classroom methodology, guided seminars, and a discussion circle. The course instructor created a 43-minute video lecture on oral histology content, which was made available on the institutional platform one week before the in-person session. Students, organized in groups, studied the material and prepared slide presentations. During the in-person meeting, a random draw determined the presenter for each group, promoting collective engagement. Following the seminars, a discussion circle with the instructors allowed for clarification of doubts, deeper exploration of the content, and discussion of the concepts' practical applications. At the end, a feedback questionnaire and peer evaluation were applied, encouraging self-assessment and critical analysis among peers. **Results:** The activity resulted in active participation and engagement, with quality presentations from all groups. Seventy-one students answered the questionnaire; 94% of the evening class and 64.2% of the full-time class reported that the activity contributed to their learning. **Final Considerations:** The pedagogical strategies employed stimulated student protagonism and supported autonomous and collaborative learning, enabling the development of cognitive and communicative skills. The results reinforce the potential of this approach as an innovative and applicable strategy for teaching Histology in undergraduate dental education.

Keywords: Dental Education; Histology; Students; Teaching; Self-directed Learning as Topic



IMPLEMENTING STATION ROTATION IN ONLINE TEACHER TRAINING: A CASE STUDY

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Objectives: During the COVID-19 pandemic, teacher training required immediate adaptation to an online format, which was adopted by education departments and private schools. This case study describes the implementation of the station rotation model in blended learning for teacher training, with the goal of increasing engagement and learning effectiveness. **Methodology:** The station rotation model, as described by Bacich and Moran (2018), was adapted for a fully online environment. Digital platforms were used to create virtual stations that focused on different practices: theoretical discussions via forums, virtual museum visits, exploration of rock art and street art (graffiti) via Google Maps, and the use of podcasts. **Results:** Teachers reported higher student engagement and enthusiasm for learning. The division of activities into stations facilitated a more personalized and active learning approach. Challenges related to technological adaptation and time management were encountered but were successfully overcome with personalized support. **Final considerations:** The experience demonstrated that the station rotation model is effective in online teacher training, promoting engagement and meaningful learning even in virtual environments. The pandemic highlighted the need for flexible and adaptive pedagogical approaches in education. This report reinforces the importance of investing in continuing education and technical support for the successful implementation of active methodologies.

Keywords: Distance Learning via ICT; In-Service Training; Learning; Teaching.



JOURNEY TO THE CENTER OF THE CELL: GAMIFICATION IN SCIENCE TEACHING

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Objective: Gamification in science education has emerged as an innovative and effective pedagogical approach, transforming the teaching-learning process. In this context, this project aimed to evaluate the effectiveness of the board game "Journey to the Center of the Cell" as a pedagogical tool in science teaching for sixth-grade students. The goal of the game was to promote understanding of the functions of cell organelles in a playful and interactive way, providing a more engaging and accessible approach for students. **Methodology:** The board of the game consisted of a path that started at the nucleus and ended at the plasma membrane, passing through various cell organelles. Participants moved their pieces along the board, picking up organelle cards as they landed on the corresponding spaces. Each card contained a description of the organelle's function and a challenge to be solved within two minutes. The game ended when a player reached the plasma membrane and completed the final challenge. The board and cards were created in Canva. **Results:** The game, implemented in the science class, showed positive results, receiving good evaluations from the students. The playful activity allowed for an effective review of the concepts related to cell organelles, increasing student engagement and improving their ability to identify and describe the functions of the organelles. **Final considerations:** Gamification as a pedagogical resource in science education proved highly effective, providing students with a stimulating and participatory educational experience.

Keywords: Cytology; Science teaching; Gamification; Active methodologies.



STUDENT MENTORING: THE USE OF REPLICABILITY AMONG HIGH SCHOOL STUDENTS AT STATE SCHOOL PROF.^a ANA CÂNDIDA DE BARROS MOLINA

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Objectives: To enhance teachers' pedagogical practices through a mentoring program conducted by high school students from *Escola Estadual Prof.^a Ana Cândida de Barros Molina*, and to provide students with learning gaps improved conditions to follow the curriculum and develop the necessary skills. **Methodology:** The mentoring process involved the teacher, a student mentor, and students with learning difficulties. Guided by the teacher, the student mentor assisted peers, serving as an alternative in addressing problem-solving situations. Mentoring sessions were conducted in advance, prior to the beginning of classes. The materials for reinforcing fragile skills were organized according to the specific difficulties identified among students. In this way, students had an additional opportunity to clarify doubts and revisit previously learned skills. **Results:** Evidence showed the development of leadership among the mentees. By replicating teaching practices, student leaders supported their peers in the educational process, while simultaneously engaging in peer-to-peer learning. In smaller groups, students felt more comfortable to address their questions. With shared responsibility, they also became accountable for the academic progress of the students they supported. **Final Considerations:** The implementation of the mentoring program resulted in improved academic performance, knowledge construction, and the development of young leaders who are supportive and competent, in alignment with the guidelines of the *Programa de Ensino Integral* (Comprehensive Education Program) and the *Base Nacional Comum Curricular* (National Common Curricular Base). Moreover, as Besnoy and McDaniel (2016) point out, "mentoring is a supportive strategy provided by a more experienced student to a less experienced one, in relation to learning."

Keywords: Education; Mentoring; Replicability; Shared Responsibility; Skills.





Congress of Pedagogical Practices

IV Classroom Research Symposium: Student and teacher training;
III Meeting for the Dissemination of Pedagogical Practices;
II Meeting on Neuroscience in education: Overcoming challenges for more effective learning

