revista de pesquisa ISSN 2175-5361

CUIDADO É FUNDAMENTAL

Escola de Enfermagem Alfredo Pinto – UNIRIO

ORIGINAL ARTICLE *DOI: 10.9789/2175-5361.rpcfo.v17.13971*

ACTIVE METHODOLOGIES IN THE PEDAGOGICAL PROJECTS OF HEALTH COURSES: THE CASE OF THE UNIVERSIDADE FEDERAL DO PARÁ

Metodologias ativas nos projetos pedagógicos de cursos de saúde: o caso da Universidade Federal do Pará

Metodologías activas en los proyectos pedagógicos de los cursos de salud: el caso de la Universidad Federal de Pará

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RESUMO

Objetivo: analisar como as metodologias ativas são referidas nos Projetos Pedagógicos dos cursos da área da saúde da Universidade Federal do Pará. **Método:** estudo de caso com análise documental dos PPCs dos cursos de graduação, entre setembro de 2023 e julho de 2024. A análise foi fundamentada em Laurence Bardin. **Resultados:** com exceção de Enfermagem e Odontologia, os PPCs têm mais de 10 anos. Apenas Farmácia não menciona metodologias ativas; os demais cursos citam ao menos uma técnica como componente curricular. Medicina, Nutrição e Odontologia indicam que as metodologias ativas serão definidas pelos docentes, sem detalhamento nos PPCs. Já Enfermagem, Fisioterapia e Terapia Ocupacional citam estratégias

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Received: 2025/05/12. **Accepted:** 2025/07/30

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How to cite the article: Tavares LN, Cuimar KA de J, Pereira MN, Polaro SHI, Sousa FJD de, Oliveira MFV de. Active methodologies in the pedagogical projects of health courses: the case of the Universidade Federal do Pará. R Pesq Cuid Fundam (Online). [Internet]. 2025 [cited year month day];17:e13971. Available from: https://doi.org/10.9789/2175-5361.rpcfo.v17.13971.

como brainstorming, práticas aplicativas, laboratórios de habilidades e dinâmicas para estudo de casos. **Considerações finais:** É necessária a atualização dos PPCs de alguns cursos e maior detalhamento sobre a aplicação das metodologias ativas.

DESCRITORES: Ensino superior; Aprendizado ativo; Técnicas educacionais.

ABSTRACT

Objective: to analyze how active learning methodologies are referenced in the pedagogical projects of health-related courses at the Federal University of Pará. **Method:** case study with a documentary analysis of the PPCs of the undergraduate course, conducted between September 2023 and July 2024. The analysis was based on Laurence Bardin's content analysis method. **Results:** except for Nursing and Dentistry, the PPCs are over ten years old. Pharmacy is the only course that does not mention active methodologies; the others cite at least one technique as a curricular component. Medicine, Nutrition, and Dentistry indicate that active learning methodologies will be defined by instructors at the beginning of the term without a detailed description in the PPCs. In contrast, the PPCs for Nursing, Physical Therapy, and Occupational Therapy mention strategies such as brainstorming, practical activities, skills labs, and group dynamics for case studies. **Final considerations:** some PPCs need to be updated to include more detailed descriptions of the use of active methodologies.

DESCRIPTORS: Higher education; Active learning; Educational techniques.

RESUMEN

Objetivo: analizar cómo se mencionan las metodologías activas en los Proyectos Pedagógicos de los cursos del área de la salud de la Universidad Federal de Pará. **Método:** estudio de caso con análisis documental de los PPC de los cursos de grado, realizado entre septiembre de 2023 y julio de 2024. El análisis se basó en la metodología de análisis de contenido de Laurence Bardin. **Resultados:** excepto Enfermería y Odontología, los PPC tienen más de 10 años. Solo Farmacia no menciona metodologías activas; los demás cursos citan al menos una técnica como componente curricular. Medicina, Nutrición y Odontología indican que las metodologías activas serán definidas por los docentes al inicio del período, sin detallar las actividades en los PPC. En cambio, Enfermería, Fisioterapia y Terapia Ocupacional mencionan estrategias como lluvia de ideas, actividades prácticas, laboratorios de habilidades y dinámicas de grupo para estudios de caso. **Consideraciones finales:** algunos PPC necesitan ser actualizados e incluir un mayor detalle sobre el uso de metodologías activas.

DESCRIPTORES: Educación superior; Aprendizaje activo; Técnicas educativas.

INTRODUCTION

The teaching-learning process in health courses has undergone two significant historical shifts. First, health courses were taught using a traditional educational model with fragmented and hierarchical curricular components. Second, a more inclusive educational process emerged, based on student participation and interaction as thinking beings in the process of building knowledge and different forms of learning.[1]

In this context, new pedagogical practices have emerged, such as active methodologies. These methodologies are an important instrument for using problematization as a teaching and learning strategy. The objective is to reach and motivate students by having them examine, reflect on, and relate their history. This process allows them to re-signify their discoveries.[2]

However, in Brazil, despite many efforts for change, the traditional teaching model persists. In this model, the teacher presents themes, and students watch, take notes, and then study, carry out activities, and solve problems.

The National Curriculum Guidelines (DCN), published by the Ministry of Education (MEC) since 2001, provide guidance on constructing the Pedagogical Project of Courses (PPC) and flexible, innovative curricula. These curricula have the potential to reorient training to build an academic and professional profile with the competencies and skills necessary to solve health problems affecting individuals and communities.[5]

The DCNs introduce elements indicating an innovative teaching and learning process. They recommend a critical, reflective, and creative view of learning in which students are considered active participants in the educational process.[6]

Therefore, teaching and learning are two sides of the same coin. Didactics cannot address teaching without also considering learning. Thus, didactics is considered the study of the situation. Instructive, that is, the teaching and learning process emphasizes the teacher-student relationship.[4]

Additionally, it is important to note that these concerns stem from a nurse's personal perception, a master's student in the Master's Degree Program in Nursing at a public university, adding her experience as an undergraduate health student at a public university I which the PPC in force at the time of her graduation (2015-2020) was from 2008.

Article 2 of Technical Opinion No. 300/2017 of the Ministry of Education (MEC) corroborates this view by recommending diversified teaching methodologies that privilege student participation and autonomy, characterizing students as active subjects in knowledge construction and teachers as facilitators, mediators, and activators of this process with an eye toward integral education.

In this scenario, it was necessary to analyze the pedagogical projects of a federal university to provide support for improving health education in public teaching contexts.

With a view to quality training that articulates teaching with research and extension, the following question arises: How are active teaching methodologies referred to in the pedagogical projects of health courses at the Federal University of Pará?

The objective of this study is to analyze how active teaching methodologies are addressed in the pedagogical projects of health courses at the Federal University of Pará.

METHOD

This qualitative, exploratory, and descriptive research is based on a case study. The qualitative approach considers the contextual, social, institutional, and environmental factors that influence human events.[7]

The exploratory and descriptive perspectives aim to provide preliminary information about the subject of study by helping to define the theme through observation, recording, analysis, and interpretation without the interference of the researcher.[8]

A case study is an in-depth, empirical investigation of a contemporary phenomenon within its real-life context, particularly when the boundaries between the phenomenon and its context are unclear. The "case" can be understood as a place, environment, or institution and includes the people within these spaces.[7,9]

A documentary analysis was carried out to contextualize facts and situations from primary sources of the Pedagogical Projects of Courses (PPC) that have not yet been analyzed.

A single case study was adopted, with the "case" representing the environment of the health faculties at UFPA.

UFPA has 15 institutes, eight centers, 36 libraries, two university hospitals, and an application school. According to the 2018 Statistical Yearbook (base year 2017), UFPA had 38,865 undergraduate students, 9,249 graduate students, 1,051 basic education students, and 6,769 students in technical and free courses.

The research focused on the websites of the faculties of the Institute of Health Sciences (ICS) and the Institute of Medical Sciences (ICM), where the PPCs were available.

The pharmacy course did not make the document available online, resulting in an unsuccessful in-person visit. Subsequently, the PPC was obtained via email request to the secretariat and course directors.

The data sources were the PPCs of the following courses: Medicine (ICM), Nursing, Nutrition, Physiotherapy, Occupational Therapy, Dentistry, and Pharmacy (ICS).

The inclusion criterion was the most recent PPC available on official websites. Outdated PPCs were excluded.

The documents were obtained by downloading them from websites or by requesting them from the course secretariats. A specific collection instrument was created to extract information on active methodologies in curricular activities and their use in each course and semester.

The PPCs were analyzed using content analysis, which aims to identify themes and categorize documents to understand the studied reality.[11]

The data was organized in three stages: pre-analysis, results treatment, and interpretation. First, the documents were read in general. Then, a thorough reading was carried out to identify relevant passages. Finally, the contents were interpreted with a focus on the object of the study, and the information was grouped into thematic units.

Seven PPCs made up the empirical material of the research.

RESULTS

Apart from Nursing and Dentistry, it can be observed that the PPCs of the other courses were developed more than 10 years ago. All of them cite at least one active methodology as a curricular component. However, the curricular activities in the Medicine, Nutrition, and Dentistry courses are defined by professors at the beginning of academic periods without details in the PPC.

The Nursing, Physical Therapy, and Occupational Therapy courses mention activities such as brainstorming, presentations, publications, practical applications, skills laboratories, group dynamics, and case studies (Chart 1), which favor the application of active methodologies.

The pharmacy program organizes activities into five categories: (1) mandatory, (2) optional, (3) supplementary, (4) integrative, and (5) the Academic-Professional Integration

Program (PIAP), which aims to integrate teaching, research, and extension. Only integrative activities, such as seminars and thematic discussions, are compatible with active methodologies.

The documentary analysis resulted in Chart 1, which summarizes the active methodologies mentioned in the PPCs based on the pedagogical guidelines and methodological procedures of each health course.

Chart 1 – Citation on Active Teaching Methodologies in the Health Courses' Pedagogical Projects at the Federal University of Pará

Curriculum Year	Course Name	Number of Pages in the Document	Pedagogical Guidelines	Methodological Styles
2020	NURSING	48	They emphasize the student as a subject, the connection between theory and practice, the integration of teaching and service, diversified learning scenarios, research integrated with teaching and extension, a foundation in humanism, interdisciplinarity, **active teaching and learning methodologies**, formative evaluation, education oriented toward relevant societal issues, curricular flexibility, and the completion of training. They promote **innovative and active teaching methodologies** that preserve equal rights, equity, and inclusive education from the perspective of equity in the training process of the professional nurse. They promote interaction between the knowledge proposed in the PPC, the use of **diverse and innovative learning methodologies**, and the performance of classes through curricular activities and academic issues of the teaching, research, and extension tripod.	Problematization Methodology Arch of Maguerez Team-Based Learning (TBL) Project-Based Learning (PjBL) Flipped Classroom Seminar Case Study
Not listed	PHARMACY	13		
2008	PHYSIOTHERAPY	75	Contemporary training is supported by a dynamic and flexible curriculum and **active methodologies**. The student- and user-centered methodology positions the teacher as a facilitator of the learning process and knowledge construction. The modules are arranged transversally to the thematic axes, enabling interdisciplinarity and transdisciplinarity by developing the contents of each axis simultaneously through a common theme. This allows for **active teaching methodologies**, such as evidence-based learning for problem solving. These **active teaching methodologies** include evidence-based learning for problem solving.	Problem-Based Learning (PBL) Project-Based Learning (PjBL) Seminars Evidence-Based Decisions

Curriculum Year	Course Name	Number of Pages in the Document	Pedagogical Guidelines	Methodological Styles
2010	MEDICINE	103 + attachments	Expand teaching and learning scenarios and train faculty in **active teaching methodologies** to promote student participation in knowledge construction. **Active and innovative methodologies** are incorporated throughout academic training and adapted to a faculty with strong traditional foundations. **Active and innovative methodologies** focus on the student and seek meaningful, contextualized learning applied to solving simulated or real-life problems. This is one of the guiding fundamentals of the course. **Active teaching and learning methodologies**. Over the years, the course has evolved with the incorporation of **active and innovative methodologies** centered on the student and focused on meaningful, contextualized learning.	Motivating Case Discussion (Similar to PBL) Seminars Case studies Oral and dialogued presentations Problematization (Arch of Maguerez) Problem-Based Learning (PBL) Team-Based Learning (TBL) Project-Based Learning (PjBL)
2010	NUTRITION	57+ attachments	The following pedagogical guidelines are constitutive elements of the pedagogical project of the undergraduate course in nutrition at UFPA: **active methodologies** for the teaching-learning process. The Nutrition course is organized into thematic units based on **active methodologies** that characterize the dynamic process of knowledge production through action-reflection-action. Expository classes will be reduced and directed towards the application of **active learning methodologies** (problematization, case studies, etc.), based on the simulation of problems specific to nutrition. This promotes a vision of the purpose of the knowledge to be developed and leads students in its acquisition.	Problematization Methodology Case Study Problem-Based Learning (PBL)
2023	DENTISTRY	43 + attachments	Of the existing **active methodologies**, three are planned for execution by the UFPA Dentistry Course: TBL (Team-Based Learning), the Case Method, and the Problematization Methodology.	Problematization Methodology Team-Based Learning (TBL) Case Method Arch of Maguerez

Curriculum Year	Course Name	Number of Pages in the Document	Pedagogical Guidelines	Methodological Styles
2023	OCCUPATIONAL THERAPY	227	**Active methodologies** with oral and dialogue-based presentations. The course develops active teaching and learning methodologies and involves students early and intensely in teaching, research, and extension projects, as well as in professional practice fields. The development of general and specific competencies in the deepening and qualification of **teaching-learning methodologies** is emphasized, especially the valorization of active methodologies, as well as the expansion of the impact of the desired professional profile to address problems, demands, and potentialities focused on institutional scope and Brazilian reality, especially in the Amazon region. The Occupational Therapy course is involved in academic training based on **active teaching-learning methodologies**. There is an option for **active teaching and learning methodologies** and the valorization of types of knowledge, especially technical and scientific knowledge. Training is based on evidence produced and disseminated locally, nationally, and internationally. Competency training regarding teaching and learning strategies will continue to be structured around **active methodologies**. In this perspective, the teacher acts as an advisor and facilitator of the teaching and learning process. **Active methodologies** are strategies based on problematization that aim to develop skills in students that prepare them for professional life. **Active teaching and learning methodologies** are capable of training professionals with ethical, political, and technical skills and critical reflective reasoning. UFPA's PDI of 2016-2025 (PROAD, 2015, p. 65) provides for the use of **active methodologies**, incentivizing the implementation of innovative pedagogical practices that use technologies and methodologies as strategic elements to transform traditional teaching and learning methods.	Problem-Based Learning (PBL) Flipped Learning Team-Based Learning (TBL) Case-Based Learning (CBL) Arch of Maguerez Project-Based Learning (PjBL): Realistic Simulation

Curriculum Year	Course Name	Number of Pages in the Document	Pedagogical Guidelines	Methodological Styles
2023	OCCUPATIONAL THERAPY	227	The pedagogical principles of curriculum design are based on an occupation-oriented perspective that has been developed through the pedagogy of competencies and **active methodologies**. **Active methodologies** enable students to take an active role in their learning process and encourage them to develop problem-solving skills for academic and community-based issues. Regarding teaching-learning strategies, the formation of competencies will continue to be structured through **active methodologies**. In this perspective, the teacher acts as an advisor and facilitator of the teaching-learning process through pedagogical practice that is collaborative, reciprocal, and problem-based. **Active methodologies** are problem-based strategies that develop skills in students to prepare them for professional life by searching for the foundations and/or resolutions of presented problem situations, thereby motivating them in the teaching-learning process. The pedagogical principles of curriculum design, centered on an occupation-based perspective, developed through the pedagogy of competencies and **active methodologies**, favor the constant acquisition, improvement, and transfer of knowledge in a spiral that integrates knowledge of different natures and specific professional knowledge. Consequently, it structures an integrated curriculum. This structure is based on **active methodologies** and is organized into modules and curricular activities, breaking with traditional teaching methods based on disciplines.	Problem-Based Learning (PBL) Flipped Learning Team-Based Learning (TBL) Case-Based Learning (CBL) Arch of Maguerez Project-Based Learning (PjBL): Realistic Simulation

Curriculum Year	Course Name	Number of Pages in the Document	Pedagogical Guidelines	Methodological Styles
2023	OCCUPATIONAL THERAPY	227	**Active methodologies** enable students to take an active role in their learning process by encouraging them to develop problem-solving skills for academic and community-based issues. The course's curricular design, philosophical and didactic-pedagogical principles, and graduate profile presuppose the use of methodological procedures that develop competencies through **active methodologies**. The modules concentrate the workload intended for **active methodologies**, conferences, and/or teleconferences. The PPC also involves students in research during module completion in different periods through active teaching and learning methodologies that require searching, selecting, reading, and critically analyzing research and scientific evidence. Training in pedagogy and technology is often organized for teachers and staff to address the specificities and nuances of the course, such as the use of **active teaching and learning methodologies**. The evaluation of curricular activities in the format of modules will include continuous formative evaluations, especially when **active teaching methodologies** are employed. Through **active methodologies**, the occupational therapy course incorporates formative and summative evaluations into its structure. The evaluation is the sum of the grades from the subunits of the module's composition, namely active methodologies and the thematic integrator module, which generate the final concept of the curricular activity. Rooms are designed to support **active teaching and learning methodologies** in the course.	Problem-Based Learning (PBL) Flipped Learning Team-Based Learning (TBL) Case-Based Learning (CBL) Arch of Maguerez Project-Based Learning (PjBL): Realistic Simulation

Source: The Author, 2024.

Figure 1 – Active teaching methodologies cited in the plans for health courses at the Federal University of Pará, using a word cloud format to demonstrate citation frequency

Source: The Author, 2024. Created on Infogram.

DISCUSSION

The results were classified into three thematic categories: "Pedagogical Principles and Curriculum Design", "Active Methodological Strategies", and "Perspective of the Quality of the Training Process".

Pedagogical Principles and Curriculum Design

Higher education training requires increasing dedication to learning processes and the ways in which such learning is provided. Health courses have a unique status due to their focus on human life, which necessarily requires an active, critical, and reflective approach in educational settings.

It is also important to emphasize that National Curriculum Guidelines for health courses must be updated regularly due to constant changes in teaching processes in higher education. Thus, if the DCN are not updated, the curriculum design for the learning process suffers.

Broadly speaking, every learning process is active to some degree as it requires internal and external motivation, creation, selection, interpretation, comparison, evaluation, and application, among other things, from students and teachers. For in-depth learning, it is necessary to create spaces for frequent practice and environments that generate new curiosities.[12]

In this first category, the pedagogical focus present in the PPC was considered. Except for the pharmacy course, the other courses incorporate the theoretical structure of their curricula, which is based on a teaching methodology centered on student knowledge. They also incorporate references, such as transversality, which indicate processes based on the National Curriculum Guidelines of each course.

Thematic axes within a pedagogical teaching proposal, beyond collective reflections, create an approximation to specific practices in health with the same objectives. They also articulate knowledge between disciplines and promote the integration of teachers and students into real-world scenarios.[13]

The disciplines are arranged in modules that are organized transversally to the thematic axes. This enables interdisciplinarity and transdisciplinarity in practice by developing the contents of each axis simultaneously through a common theme. This allows for active teaching methodologies, such as evidence-based learning for problem solving.

Active Methodological Strategies

UFPA's PDI of 2016-2025 provides for the use of active methodologies and incentivizes the implementation of innovative pedagogical practices that use learning technologies and innovations.[14]

The discussion about active learning is not new and has gained strength in recent years, striving to establish itself as a pedagogical change that stimulates students' skills and abilities. These are methodologies in which students are not mere spectators, but active participants who experiment and reflect on their epistemological journey.[15]

Several methods linked to active approaches have the potential to promote experiential learning and foster autonomy, learning, and protagonism.

The PPCs analyzed in this research reveal methodologies that are considered active based on their specific characteristics. The documents reveal the following active methodologies: problematization of reality, flipped classroom, problem-based learning (PBL), project-based learning (PjBL), team-based learning (TBL), Arch of Maguerez, realistic simulation, aquarium, case study, and evidence-based decisions.

In 2007, the Ministry of Education, through the National Program for the Reorientation of Professional Training in Health (Pró-Saúde), in partnership with the Ministry of Health, proposed a process of adult education using teaching-learning methodologies with challenges for students to overcome. This process enables students to participate in constructing knowledge and analyzing the healthcare process, while placing the teacher as a facilitator and advisor.[16]

In this sense, the classroom becomes an active learning space. The teacher works with students' difficulties, and students are the protagonists who learn autonomously through questions, debates, and practical activities.[17]

Among the PPCs studied, the theoretical and methodological structure, as well as the language, align with the recommended model of active learning. However, the question remains: are teaching plans and the teaching posture in the classroom conducive to intellectual autonomy? It is known that a pedagogical approach that stimulates students' cognitive processes and leads them to create meaning is challenging. This requires teachers to guide students through the learning process and favor the construction of concepts.

The PPCs of the nursing, physiotherapy, and occupational therapy courses mention curricular activities such as presentations and publications, practical applications, professional skills laboratories, and group dynamics for case studies. These activities certainly contribute to favorable spaces for the application of active methodologies.

Active learning approaches break with traditional teaching methods, offering new perspectives and providing content that would not be explored using conventional methods. Even if these contents were addressed, they might not be relevant to students. In active methodologies, the degree to which students are involved in the discussed topic plays a crucial role in their understanding; greater participation generally translates to greater understanding.[18]

Significant changes in the structure of higher education have generated important repercussions for learning. The emergence of a new curricular structure centered on competencies, the proposal of new learning- and student-focused methods, and the new conception of teaching have created unprecedented pedagogical demands on faculty in the recent history of universities worldwide.[17]

Another analysis shows that constructing a PPC that meets the expectations of the current labor market and works pedagogical skills as new forms of learning, as well as valuing the interaction of knowledge, is a complex and challenging task.

Leading students to think and act as protagonists of their intellectual development requires a permanent effort involving students, teachers, course directors, pedagogical coordinators, and members of Structuring Teaching Centers. In other words, it demands engagement from the entire academic community.

Training processes must consider advances in knowledge, changes in work processes, and social needs for each demographic and epidemiological profile of the population.[19]

Perspective of the Quality of the Training Process

To develop efficient learning strategies, it is important to understand that learning is diverse, multiple, continuous, hybrid, formal, informal, organized, and open; it can be intentional or unintentional. Learning occurs in various ways using different techniques and procedures that can be more or less effective in achieving desired objectives.[14]

Interdisciplinarity requires cooperation among professors in specific areas who collaborate on a common objective. This differs from multidisciplinarity, in which professors act in isolation within their areas of expertise with little need to cooperate with other faculty members.[20]

Therefore, higher education institutions and faculty have an important role in forming this professional profile required by the market. To do so, adjustments must be made to the teaching and learning processes to help students build these skills.

Perspectives on co-responsible teaching are not new; however, teachers must understand that continuing education is the only way to teach and opens doors to new, more stimulating learning methodologies that produce better results.[21]

The PPCs of the courses analyzed in this research demonstrate an understanding of this need. For example, the Physiotherapy course mentions that, in relation to its innovative pedagogical project, teacher training must be planned to address its specificities and nuances.

The Physiotherapy course also mentions that strategies and activities, such as a teacher pedagogical training program, will contribute to overcoming difficulties and implementing the new pedagogical project.

The Medicine course's PPC includes a Teacher Development Program in Medical Education to promote the implementation, development, and evaluation of pedagogical strategies through the Medical Education Commission. The nursing program mentions in its PPC that, at the beginning of each semester, a meeting is held with the professors to consolidate the curricular integration plan and the joint reception of classes. This involves professors of curricular activities per semester.

Based on the principle of active methodology, the meeting provides spaces for studying and reflecting on teaching

practices. It seeks strategies to improve the quality of teaching and learning and ensure fairer evaluations.

Regarding the quality of teaching, the Dentistry course's PPC includes aspects related to respecting the inclusion of Amazonian specificities in the educational context. It also reflects on the health needs of the regional population, including quilombolas, riverside dwellers, and indigenous peoples.

Similarly, the PPC of the nursing course includes actions focused on health promotion, prevention, protection, and rehabilitation. These actions consider the specific needs of individuals, families, social groups, and communities throughout their life processes, including traditional populations in the Brazilian Amazon.

These perspectives are within an active, innovative methodological context that considers not only teaching strategies in the classroom but also the environment, region, and its specificities where the training process takes place.

It is important to understand that the goal is not for students to simply acquire knowledge, but rather to be affected and destabilized to develop an understanding of themselves, their encounters, and otherness on stage. This involves the construction of acts of care, treatment, and attention.

In summary, it is evident that the relationships between students and professors have changed in the face of various methodological innovations, becoming full of new meanings, as demonstrated by some of the most used active methodologies in health courses. It is crucial for higher education institutions (HEIs) to provide support to ensure that this new teaching model is implemented effectively and benefits both teachers and students.

Regarding the study's limitations, the lack of teaching plans on the course website made it impossible to compare the PPC with the teachers' plans for the classroom. Notably, among the PPCs analyzed, only one was unavailable on the college's website. This also limited this study.

FINAL CONSIDERATIONS

This research provided an overview of the use of active methodologies in health education and demonstrated advances in pedagogical projects and the teaching process in this field.

However, it was observed that the National Curriculum Guidelines (DCN) do not keep up with the pace of change in teaching and learning because their versions are outdated for most health courses. Therefore, it is crucial for universities to promote discussions and revisions of DCN that benefit higher education.

Based on the PPCs of the UFPA health courses analyzed in this study, it was concluded that most were outdated; five of the seven projects were more than ten years old. Only the Nursing and Dentistry programs have versions less than five years old.

In summary, methodological innovations have transformed the relationship between students and teachers, giving new meaning to the educational process. The presence of active methodologies in the analyzed courses reinforces this change. Higher education institutions must offer adequate support to consolidate this model and benefit professors and students.

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