


UNDERSTANDING ACTIVE CITIES: INNOVATIVE PEDAGOGICAL APPROACHES FOR STUDENTS OF HUMAN MOVEMENT AND SPORT SCIENCES

COMPRENDERE LE CITTÀ ATTIVE: APPROCCI PEDAGOGICI INNOVATIVI PER GLI STUDENTI DI SCIENZE MOTORIE E SPORTIVE

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ABSTRACT

This study delves into the characteristics of Active Cities and Bodily Practices course, where students actively engage with urban spaces to promote physical activity. Through innovative teaching methods, students develop competencies that extend beyond theory, enabling them to critically analyze and enhance urban environments. Student feedback evaluation, shed light on the effectiveness of active learning approaches in fostering comprehensive understanding and practical skills.

Questo studio approfondisce le caratteristiche del corso Active Cities and Bodily Practices, in cui gli studenti interagiscono attivamente con gli spazi urbani per promuovere l'attività fisica. Attraverso metodi di insegnamento innovativi, gli studenti sviluppano competenze che vanno oltre la teoria, consentendo loro di analizzare criticamente e valorizzare gli ambienti urbani. La valutazione del feedback degli studenti ha fatto luce sull'efficacia degli approcci di apprendimento attivo nel promuovere una comprensione globale e abilità pratiche.

KEYWORDS

Active cities, Interdisciplinary Approach, innovative didactic

Città attive, approccio interdisciplinare, didattica innovativa

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Introduction

The World Health Organization (WHO) recommends that adults and elderly aim for a minimum of 150 minutes of moderate physical activity (PA), 75 minutes of vigorous PA, or a balanced combination of both each week (Bull et al., 2020; World Health Organization, 2020). Engaging in this level of activity has been shown to yield beneficial outcomes for physical fitness and overall well-being (Adamu et al., 2006; Marker et al., 2018; Ruegsegger & Booth, 2018; Warburton et al., 2006). However, our society is, de facto, promoting an excessively sedentary lifestyle restricting physical activity exclusively to gym, sports, and PA associations. This not only imposes limitations but also presents a clear contradiction. In this age of technology, where smartphone screens captivate people's attention and time, and a simple twist of a handlebar propels individuals on shared scooters at 20 km/h around the city, the endeavor to encourage PA in everyday life might appear to be a quixotic battle against windmills. Anyhow, this battle is an effort that someone is disposed to face. Well before the WHO adopted the slogan "sit less and move more," researchers had already been captivated by the necessity to augment spontaneous physical activity in daily routines (Garland et al., 2011; Kriemler et al., 1999; Teske et al., 2012). Over the past two decades, there has been a comprehensive exploration of the sedentary lifestyle and its impact on health (Chastin et al., 2015; Dempsey et al., 2014; Ekelund et al., 2012; Hadgraft et al., 2020; Hamilton et al., 2008; Lees & Booth, 2004; Owen et al., 2010, 2011; Ruiz et al., 2011; Thorp et al., 2011). Consequently, various strategies have emerged to enhance the integration of physical activity into our daily routines. Among the most impactful strategies has been the transformation of cities into active environments, active cities (Borgogni & Farinella, 2017), designed to encourage living, walking, and commuting with minimal reliance on motorized transportation. This approach has been embraced by numerous countries that have reshaped their environment, infrastructure, and topography to cultivate cities that are vibrant, dynamic, and richly experienced. For instance, northern countries like the Netherlands and Denmark have enhanced their cycling infrastructure, implementing initiatives such as the "woonerf" concept in the Netherlands. In this way, municipalities and institutions shift their attention from motorized comfort to putting citizens and their well-being first. The individual claims a significant presence within the urban landscape that allows the city to be experienced through movement.

Cities are not always experienced actively, and there are various factors that can influence this practice. From a "macro" perspective, for instance, there are socio-cultural factors, such as cultural and social values attributed to physical activity. From a "micro" perspective, the influence of media, which often exaggerates the dangers of public spaces, can be found. From an "intermediate" perspective, in the

case of children, parental support can play a role. Lastly, at a "micro" level, factors include spaces perceived as safe, livable, and accessible. In addition to these aspects, other elements such as pollution, climate, urbanization, increasing technological advancements, and digitization also contribute (Borgogni, 2019).

Throughout their career, graduates in motor sciences will find themselves having to address the barriers that prevent people from actively experiencing the city, seeking instead to promote its utilization. They can do this, for example, by focusing on the younger segments of the population, encouraging activities that were once spontaneous within the city but have now diminished due to the aforementioned reasons. To accomplish this, however, it is crucial for graduates in motor sciences to have developed, during their studies, the skills to critically assess the use of public spaces as tools for promoting physical activity and active lifestyles. The Active Cities and Bodily Practices course aimed precisely at this objective: to educate professionals capable of recognizing the potential of public spaces as facilitators of mobility and understanding how to harness this potential. To achieve this goal, an innovative educational approach was adopted. This approach went beyond traditional frontal teaching methods and incorporated strategies such as Flipped Classroom, group laboratory activities, and participatory teaching. Another defining element of the course was its interdisciplinary approach.

The course on Active Cities and Bodily Practices (M-EDF/01), presented below, is part of the curriculum offered by the bachelor's degree in Human Movement and Sport Sciences at the University of Bergamo. Alongside the Urban Philosophies course (M-FIL/02), it forms the course of Thinking and Navigating the City.

Throughout the course, the relationships between urban space and the body, as well as urban space and human movement, were examined. This analysis aimed to understand how the educational intentionality of public spaces encourages human movement, and also to facilitate the development of design skills in students, enabling them to create activities and interventions that promote active lifestyles and physical practices.

The course comprised ten three-hour sessions, alternating between traditional theoretical lectures, outdoor and indoor group-based laboratory activities. In some cases, the Flipped Classroom approach was employed. Throughout the entire course, an emphasis was placed on fostering participatory teaching methods. The instructional strategies, different from the conventional frontal approach, were designed with the objective of deepening students' understanding of course concepts and facilitating their connection with reality. Thus, the focus was on engaging students in their skills, seen not only as a thorough comprehension of the course topics but also as the ability to apply knowledge in situational contexts (Sandrone, 2018). This approach aimed to transform the lessons into transformative experiences rather than just informative sessions (Zagrebelsky, 2021).

In addition to employing more innovative teaching methods, an interdisciplinary approach was utilized during the instruction. The construction of the themes in the Active Cities and Bodily Practices course inherently engaged various disciplines beyond the pedagogy of motor and sports activities, such as architecture, urban planning, and pedagogy. A "natural" connection was also established with philosophy. Furthermore, through collaboration with other instructors, space was reserved in this year's curriculum for physiology as well. This enabled students to engage with a broader perspective of the phenomena under investigation, avoiding reductionism and simplifications (Morin, 1988).

1. Educational Strategy: Interdisciplinary Approach

An interdisciplinary approach and a comprehensive perspective on what is being studied are not easy to implement and maintain. During the Active Cities and Bodily Practices course, to the extent possible, efforts were made to achieve this. When studying an object (in this case, the city), it might seem almost instinctive and simpler to isolate it from the context it belongs to and fragment it into multiple "pieces" that are then analyzed individually. However, acting in this manner is highly risky because the knowledge derived from it lacks relevance and furthermore, it snuffs out the possibilities of understanding and reflection, eliminating even the potential for accurate judgment or a long-term vision (Morin, 1988).

For instance, looking at it from an urban planning standpoint, it has been examined the Bergamo region through field excursions and collaborative projects. This exploration delved into how the planning, design, and overall organization of public spaces, including their accessibility, walkability, adaptability, and whether they are confined to their intended purposes, along with the arrangement of infrastructural elements, impact human behaviors. Furthermore, it has been explored how those who utilize these spaces can also reshape them, occasionally even informally repurposing areas originally designated for different uses. (Borgogni, 2020b, 2020a).

Regarding the part related to motor sciences, an attempt has been made to understand how public space and the urban fragments that compose it can be utilized to carry out various types of physical exercises, sometimes modifying the intended use for which they were designed (Borgogni, 2020a).

From a physiological perspective, during the proposed group workshops (through tests which we will discuss later), an analysis was conducted on how the body responds to physical activity that can be carried out in public spaces. Finally, referring to the pedagogical and educational aspect, the focus has been on the opportunities for growth and development that can be obtained by independently frequenting public space, especially in children, as it is characterized by innate

polysemy, opportunities, unpredictability, conflicts (“innate polisemie, opportunità, imprevedibilità, conflitti” (Borgogni, 2020a, p. 29).

Therefore, public space has been considered as a multidimensional phenomenon: to "understand it," efforts were made, especially during group work, to connect the collected data and information related to each individual context, avoiding reducing space to the sum of its components.

2. Flipped Classroom: Theory, Participation, and Practical Application

Throughout the course, an interactive teaching approach was employed, emphasizing discussion, cooperation, and giving importance to students' voices, inviting them to participate in decisions regarding their educational path (Rivoltella, 2013). This pedagogical approach views students as active participants and "expert members" of the learning communities, rather than mere consumers of services provided by a predetermined system (Grion & Maretto, 2017). Furthermore, productive and ongoing interactions with the instructor and peers, including group work, could enhance levels of participation and motivation. In turn, a high level of engagement could foster more effective learning (Iavarone et al., 2017).

One teaching strategy that promotes active student participation is the Flipped Classroom, which was used multiple times during the course. The Flipped Classroom, or inverted teaching, is an innovative educational strategy that originated in the United States in 2006. It was created with the goal of making learning a stimulating and enjoyable activity, also aimed at promoting the development of skills such as learning to learn, autonomy, and responsibility (Franchini, 2014).

Unlike traditional teaching methods, which involve a frontal lecture in the classroom by the teacher followed by independent study and practical activities to be done at home, the Flipped Classroom aims to provide more space for reflection, processing, discussion, and teacher-student interaction. In this approach, the time available in the classroom is conceived as work time, research time, problem-solving time, under the guidance of an expert adult, who is called to engage in continuous interaction with the students (Franchini, 2014). Therefore, classroom time is dedicated to practical activities and understanding theory through dialogue with the teacher, while the explanation of the theory is assigned to the time at home and can be accessed through video lessons or other materials provided by the teacher.

From a practical standpoint, the educator equips students with resources (typically video lectures, and occasionally written materials) to engage with prior to attending the class. During the session, students are encouraged to raise questions and insights stemming from their pre-class learning, aiming to elucidate any perplexities. The professor, in turn, can introduce activities for individual or group

participation, fostering a richer grasp of the theoretical aspects. As for evaluation, a creative methodology can be employed, encompassing PowerPoint presentations of personal projects, instructor-proposed workshops, video presentations, and interactive verbal exchanges (Akçayır & Akçayır, 2018; Franchini, 2014; Ozdamli & Gulsum, 2016). Therefore, a crucial element inherent in the flipped classroom is the interaction between the professor and the student. In fact, "in the flipped classroom approach, students have the opportunity to engage in discussions with their teachers, a scenario not feasible in the traditional approach." (Ozdamli & Gulsum, 2016, p. 103). The professor, therefore, transitions from being a mere transmitter of knowledge to becoming a guide. (Franchini, 2014).

This teaching method also has another advantage: while in traditional teaching it's the teacher who decides what, how, and when to explain, largely following "their own pace," in the flipped approach, it's the student who can personalize and self-regulate how much and when to review the provided material, or, if necessary, can even choose to delve deeper into a specific topic using other sources. It's clear that in this case, the teacher loses control over the processes and entrusts students with initiative and trust ("l'insegnante [...] perde il controllo [sui processi e] consegna agli studenti iniziativa e fiducia" Franchini, 2014, p. 92). However, this approach requires the student to take on responsibility: it's indeed up to them to manage their own work and regulate their acquisition of knowledge.

It is clear that this could lead to problems: indeed, students not accustomed to this teaching method might feel disoriented, struggling to understand what to do. Furthermore, another issue that often arises with this approach is the limited preparation of students before the lesson: however, if the required preparatory work is not done at home, one cannot actively participate in the lesson, discussion, and activities proposed by the instructor. This could result in poor outcomes and undermine the benefits of the flipped classroom (Akçayır & Akçayır, 2018).

3. Observing Urban Spaces: Practical Exploration and Physiological Insights

The initial two sessions revolved around informing students with the course's subject matter and delving into theoretical elucidations of specific concepts inherent with the course themes. In anticipation of the third session, during which the class embarked on a stroll along the greenway, the historical background of this cycling path and the encompassing Parco dei Colli di Bergamo (Bergamo Hills Park) were presented. Notably, during this outdoor activity, students were granted the opportunity to witness individuals partaking in deliberate or inadvertent physical, motor, and athletic pursuits within the urban setting. They engaged in discussions with the instructor, contemplating the utilization of public spaces for movement. At halts along the walk, students were tasked with assessing their heart rate at both the radial and carotid arteries, as well as gauging their perceived exercise intensity via the Borg 6-20 scale (Borg, 1970, 1998). Back in class, students shared their

observations and were encouraged to review their heart rate analysis results and their perception of effort. In the subsequent lessons, alongside traditional theoretical lectures, practical group workshops were introduced. In the initial activity, following a Flipped Classroom approach, the groups explored specific areas of Bergamo using a provided geographical map. Guided by the professor's choices, each group received a qualitative perceptual observation grid encompassing diverse urban facets: sensory cues (pleasant and unpleasant scents), auditory elements (vehicles, bells, human chatter, animals, industries, etc.), emotional responses (abandonment, security, discomfort, fear), critical situations (inappropriate crossings, absence of sidewalks, bike path interruptions, etc.), distinct features (natural and built, guiding or disorienting), and ground conditions (asphalt, uneven terrain, soft surfaces, etc.). Their task was to pinpoint the map locations where they encountered the elements from the grid. Additionally, in relation to the observed area, each group also completed the IPAPS questionnaire (Bauman et al., 2009).

Regarding the second activity the groups (remaining unchanged) had the opportunity to choose the location for observation. In addition to an observation grid to fill in, they were provided with a file containing several definitions (pertaining to spaces), some of which had already been covered in the class. The objective of the activity was to fill out the grid, inserting the observed space types and their qualitative characteristics (tight or loose, spaces or places, adaptable or flexible, porous, accessible, walkable), along with the type of physical activity being practiced by the place's frequent visitors (selfish or altruistic), using the definitions provided. Additionally, they were encouraged to photograph interesting aspects within their observed area and conduct interviews with regular visitors (inquiring about how they utilize the space, its strengths and weaknesses). Finally, as an optional element that was not mandatory, each group was asked to hypothesize a physical and motor itinerary within the observed area, calculating the perceived exertion, average heart rate, distance, minimum travel time, number of steps, and utility of the route.

After both the first and second activities, the groups returned to the university to briefly share what they had observed. Specifically, the discussion that took place after the second workshop also served as an initial opportunity to gauge whether the definitions had been comprehended and if the subsequent labels assigned to the areas were accurately matched. The data collected during the two observation activities were subsequently subject to rework at the end of the course, culminating in a final presentation where each group showcased their findings to the others.

The distinctive attributes of an urban environment, offering diverse ways and means of living and traversing, should not merely be perceived as constraints, but rather can serve as determining factors for the types of physical activities that can be engaged in (Cudicio et al., 2019). To achieve this goal, understanding and

identifying the level of physical involvement demanded by a specific area, space, or pathway can play a pivotal role in suggesting and advocating for outdoor physical activities. During the outdoor laboratories, students were instructed to record their perceived intensity and measure their heart rate at preselected locations. Initially, the students were instructed to carry out these measurements before embarking on the outdoor laboratory. Subsequently, additional measurements were taken at specific points during the activity. The second measurement was conducted immediately after the students completed the first portion of a challenging uphill climb on the Mura Venete. The third measurement was taken at the conclusion of the aforementioned uphill section. The fourth measurement was recorded after a downhill segment, once the students arrived at the Bergamo green-way. Finally, the last measurement took place at the end of the uphill ascent of the Scaletta della Noca, situated near the University. The purpose of this exercise was twofold: to help students identify the physiological aspects of the activity and compare them with their perceived effort. This approach aimed to emphasize the role of the body as a central entity that interacts with the urban environment through movement. Nevertheless, the data we collected revealed a clear and consistent pattern. Indeed, the results of the two-way ANOVA for repeated measures, followed by post hoc analysis, indicated that there was no significant difference between the changes in heart rate and perceived exertion (Figure 1) at the sampling time (>0.05).

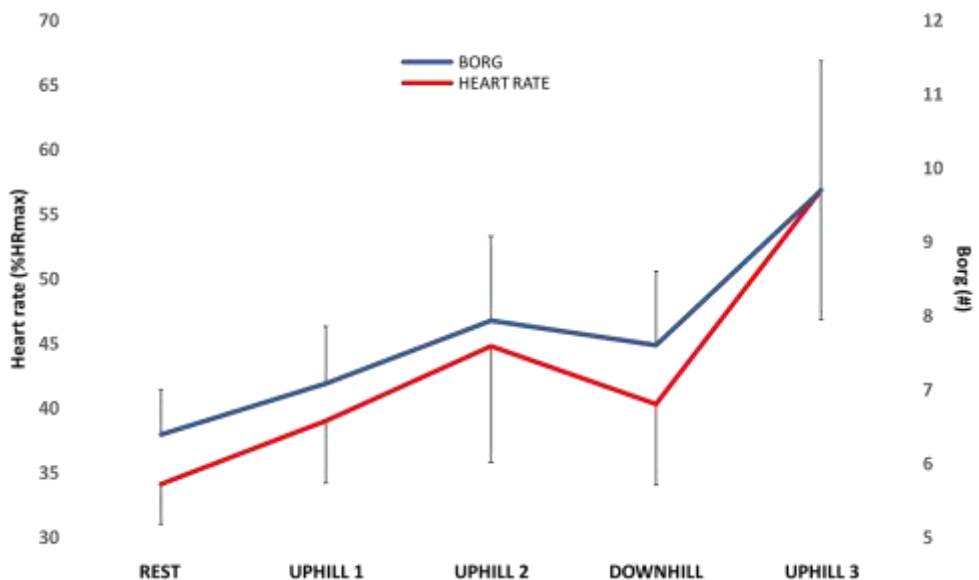


Figure 1 Average and standard deviation of heart rate (in red) and perceived exertion (in blue) as recorded by the students at the five different sampling time points.

The presented results hold notable significance. Specifically, the objective heart rate data, which witnesses the internal load of PA, align harmoniously with individuals' personal perceptions. This emphasis on the body's role goes beyond mere physiological information, placing it (the individual - the body) as the focal point. Consequently, students can gain a profound comprehension of the pivotal role the body plays within the urban environment.

4. Exploring Project Outcomes: Analysis of Student Presentations

In the journey of the Active Cities and Bodily Practices course, one of the paramount objectives was to empower students with the ability to comprehend, critically evaluate, and actively engage with urban spaces in a manner that promotes physical activity and active lifestyles. As part of the course's innovative approach, a pivotal aspect was the active involvement of students in the process of learning and discovery. Throughout the course, students were encouraged to be active participants in their learning. Their engagement extended beyond traditional classroom lectures and included practical observations, data collection, analysis of thought, and creative interpretations. The culmination of their efforts resulted in a diverse range of achievements that highlighted their evolving competencies. The most significant contribution came from the students themselves. Their keen observations, thoughtful analysis, and dynamic participation in outdoor workshops demonstrated a holistic understanding of the relationship between urban spaces and human movement. As part of their practical engagements, they identified and examined spaces in the city, evaluated the level of physical engagement they facilitated, and even hypothesized new physical and motor itineraries within these spaces. These competencies were evident not only in the high-quality data the groups collected, but also in their creative and informed interpretations presented to the professor and classmates. In just 15 minutes, each group demonstrated strong observational skills by effectively reporting the key characteristics of their assigned area through the tools and frameworks taught in class. They also showed analytical abilities by thoughtfully identifying suitable types of motor and physical activity options well-suited to the area's attributes. The presentations displayed both a firm grasp of course concepts and independent critical thinking skills in their analysis and recommendations. One of the most compelling revelations from the students' contributions was the knowledge they had acquired throughout the course. Their practical experiences allowed them to move beyond theoretical concepts and embrace the complexities of real-world urban environments. The data they gathered, the observations they made, and the connections they established during the outdoor workshops enriched their understanding of the intricate relationship between urban design and physical activity. The students' capacity to assess their surroundings with a critical lens also demonstrated the effectiveness of the course's pedagogical approach. By engaging in direct

experiences, they not only acquired knowledge but also developed the ability to analyze and apply it.

5. Evaluating the Project: Student Feedback and Assessment

At the end of the Active Cities and Bodily Practices course, students who had participated consistently in the lectures and group work were invited to complete an online questionnaire to understand how much they appreciated the teaching methodology used and whether it had helped them acquire knowledge and skills smoothly. 36 students responded. Subsequently, a representative from each group (a total of 6) was asked to participate in a focus group led by the Physiology instructor and an assistant to the main instructor. During the focus group, some results obtained from the questionnaire were presented, and participants were asked to comment on them, attempting to understand the reasons behind the responses. A transcription of the focus group was then created, which was later used to analyze the content of the discussion. The questionnaire, employed to solicit feedback pertaining to the quality of the didactic approach, incorporated a structured framework comprising Likert scale-based inquiries (Figure 2), ranging from "strongly agree" to "not agree at all," in conjunction with open-ended or multiple-choice questions designed to elicit more comprehensive insights.

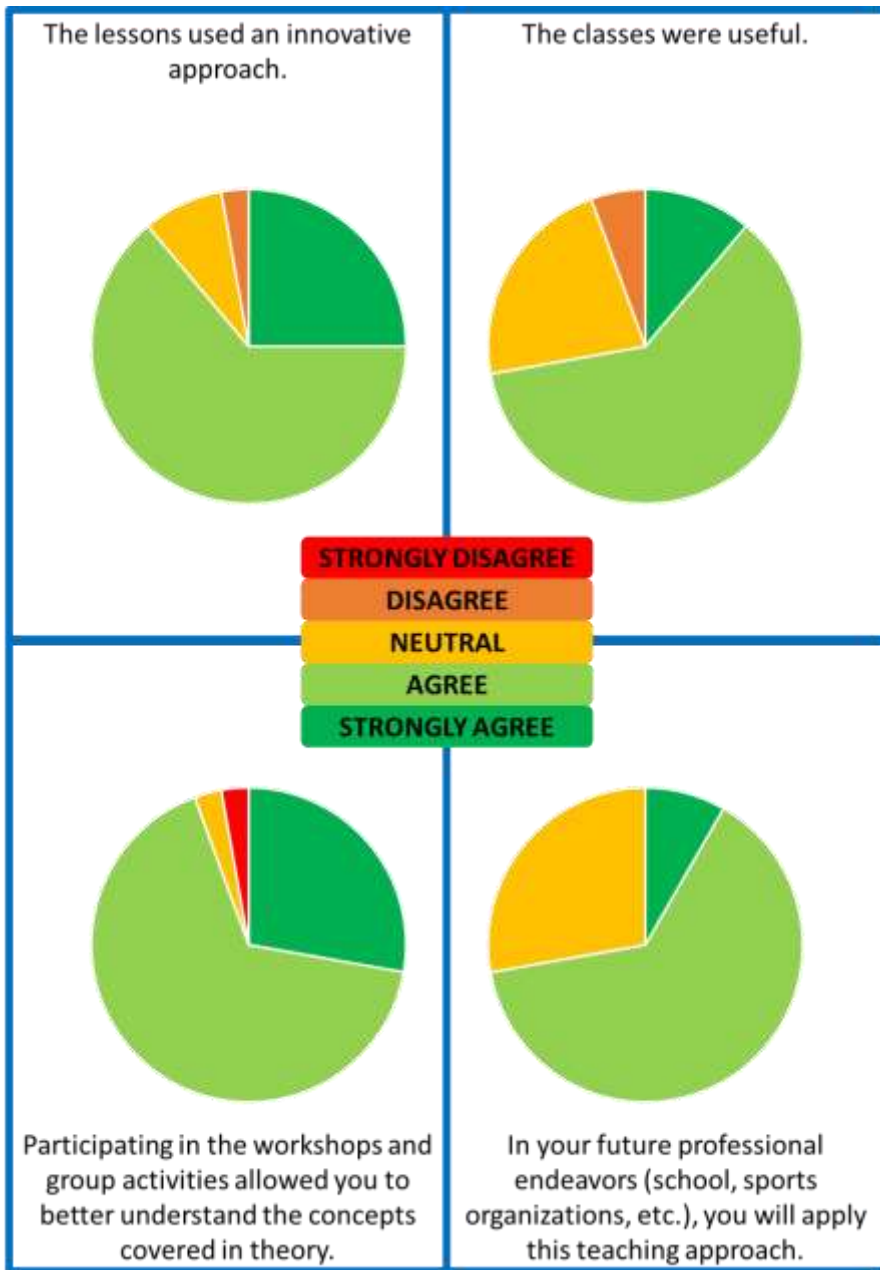


Figure 2. Pie chart illustrating students' percentage responses to four questions.

Students responded positively to the first question ("The lessons used an innovative approach"), with 88.9% indicating agreement (63.9% agreed and 25% strongly agreed). This favorable outcome underscores the significant reasons highlighted by the students themselves that contribute to their accord. Particularly noteworthy among these factors are the shift away from conventional frontal instruction, the incorporation of participatory methods, and the integration of multidisciplinary elements. Moreover, students would like these last two elements to be incorporated into other university courses. The second question ("The classes were useful") revealed that approximately a quarter of the students (22.2% neutral and 5.6% disagreed) did not respond positively. However, they conveyed that their inclination towards this perspective stemmed from their individual lack of strong interest in the discussed topic. Almost the entirety of those surveyed (66.7% agreed and 27.8% strongly agreed) responded affirmatively to the third question ("Participating in the workshops and group activities allowed you to better understand the concepts covered in theory"). The primary reasons cited highlighted the significance of hands-on practice and active engagement. Furthermore, the students indicated that they found the subject matter more accessible through such practical involvement. Notably, the students emphasized that they were positioned at the core of the learning process, enabling collaborative learning with peers that facilitated comprehending the subjects from different perspectives. The final question ("In your future professional endeavors (school, sports organizations, etc.), you will apply this teaching approach") yielded no negative responses (27.8% neutral, 63.9% agreed, and 8.3% strongly agreed). Delving deeper, students articulated their appreciation for the effectiveness of the employed methodology, its innovative nature, and the engaging and interesting experience it offers. The feedback gleaned from the questionnaire reinforces the efficacy of the didactic approach in promoting active learning, multidisciplinary engagement, and practical understanding. Students' enthusiasm for the approach's innovative nature and their recognition of its potential application in professional contexts validate the course's pedagogical direction.

6. Focus group

As previously highlighted, during the focus group session, which involved six representatives from the student groups, we aimed to delve deeper into the responses obtained from the questionnaire. From the questionnaire, it became evident that the reduction of traditional frontal teaching was appreciated. However, when students were asked if they would prefer less of it in their other courses, the response was not entirely positive. This seemed to contradict what they had previously mentioned. The focus group revealed that they view the reduction of traditional frontal teaching in other courses as somewhat unfeasible, primarily due to the subject matter these courses cover. Consequently, they wouldn't advocate for such a change. It's possible that, having been accustomed to

traditional frontal teaching for an extended period, they struggle to envision the possibility of using a different method. Furthermore, some students believe that this teaching approach is not conducive to their final exams, which, in any case, solely focus on the theoretical aspects and neglect the practical elements covered in the lessons. It was also emphasized during the focus group that those who found the lessons less useful actually had issues with the subject matter rather than the teaching method itself. Additionally, some of them faced difficulties attending the lessons due to organizational problems, such as scheduling conflicts with their other commitments. From the questionnaire, it emerged that some students did not appreciate the activities proposed by the teacher in class, including group work. The focus group revealed that this was because these students had not devoted sufficient time at home to the theoretical part, failing to delve into what the teacher had provided. Consequently, they struggled during practical activities, lacking the necessary theoretical background. As mentioned in the theoretical section, the flipped classroom approach makes sense when students take responsibility for their self-learning; if this aspect is neglected, the flipped teaching method may not always yield positive results. It was found that the materials provided by the teacher before the in-class sessions were helpful to those who utilized them. Even though the topics had not yet been covered in class, the teacher's materials assisted students in getting oriented. As we have seen, aside from a few cases, group work was appreciated not only because it allowed students to engage in practical aspects but also because it promoted dialogue and peer interaction. Furthermore, through these group activities, students had the opportunity to get to know each other more deeply. However, the questionnaire revealed that not everyone would like to do group work again, even if they found it valuable. During the focus group, some students highlighted that it is not always productive to work in groups because some students invest little effort, are solely interested in grades, or seek potential "discounts" that the teacher might offer (in terms of required reading for the final exam) as a result of their participation. Therefore, although appreciated, group work can sometimes be unpredictable as one cannot always anticipate the interests of other participants. Some students found the discussions that took place in the classroom, particularly with their peers, to be beneficial. Dialogue allowed them to better understand certain theoretical concepts, perhaps even more so than practical work. Others pointed out that it would have been beneficial if all groups, during the proposed activities, analyzed the same areas so that subsequent discussions would be more lively and comprehensible. When they were unfamiliar with the area analyzed by other groups, they struggled to grasp some of the proposed themes and gain insights from the discussions.

7. Limitations

This article covers a wide range of topics to provide a holistic view of the teaching methodology used. Despite the authors' efforts to address these topics as comprehensively as possible, this work does have some limitations. Firstly, adhering to regulations that grant students the freedom to attend classes resulted in the inability to track individual class attendance. Additionally, beyond examination settings, it was not feasible to verify the effectiveness of student-directed preparation. The physiological measurement of heart rate would have required more precise tools, such as a heart rate monitor. It should be noted that the focus group was limited to group representatives due to time and feasibility constraints.

Conclusions

The project's results, the students' contributions, and the competencies they developed collectively underscore the effectiveness of the Active Cities and Bodily Practices course. This dynamic approach to education emphasizes learning through experience, critical evaluation, and practical engagement. The students' capacity to evaluate urban spaces and identify their potential for promoting physical activity is a testament to their growth as active participants in shaping healthier and more vibrant cities. By placing students at the heart of their learning journey, the course not only deepened their understanding of the subject matter but also empowered them to contribute meaningfully to the discourse surrounding active cities. Through their observations, data collection, and interpretations, the students showcased that they are not just learners but also agents of positive change in urban environments. The course's innovative approach, guided by the principle of active participation, successfully merged theory with practice, resulting in competencies that extend beyond the classroom and into the real world.

Author Contribution:

A.C., conceptualization; physiological and questionnaires data collection and analysis; writing original draft preparation (chapters: introduction, 3-4-5-7 and conclusion), revision, and editing; study supervision; *corresponding author.

S.S., conceptualization; focus group data collection and analysis, writing original draft preparation (chapters: introduction, 1-2-6), revision, and editing;

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