
EnviroActif 360: A Blueprint for the Future of Inclusive Physical Education

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ABSTRACT

Physical inactivity among youth is a global crisis, disproportionately affecting students with special educational needs (SEN) who face systemic barriers to participation. This paper presents the **EnviroActif 360** project, an innovative three-stage research initiative in Switzerland that provides a blueprint for building the inclusive Physical Education (PE) of tomorrow.

Stage 1 employed the Global Matrix 5.0 framework to conduct a comprehensive national mapping of physical activity promotion across 11 indicators. Results revealed a striking paradox: while Switzerland excels in providing supportive environments (Community and Environment: A-, School: B), behavioral outcomes are concerning, with sedentary behavior receiving a failing grade (F). Most critically, the study exposed a complete data void for children and adolescents with disabilities (CAWD), with all 11 indicators graded as Incomplete (INC), rendering this population systematically invisible.

This empirical invisibility mandates a paradigm shift. Stage 2 will generate missing data through accelerometry and qualitative methods, giving voice to CAWD's lived experiences. Stage 3 will co-construct Universal Design for Learning (UDL)-based interventions with stakeholders. This sequential **Diagnose → Listen → Co-Create** model offers a transferable roadmap for transforming inclusion from rhetoric to evidence-driven reality, architecting a PE system designed for all students from the ground up.

INTRODUCTION

The global decline in physical activity (PA) among youth has reached a critical point, representing a significant public health challenge (Aubert et al., 2022). The World Health Organization's recommendation of 60 minutes of daily moderate-to-vigorous PA is missed by a vast majority of adolescents (Guthold et al., 2020). This crisis is profoundly amplified for students with special educational needs (SEN) or disabilities, who are systematically left behind due to pervasive physical, social, and pedagogical barriers (Kiselev et al., 2023). In Switzerland, a country with advanced health and education systems, this disparity is particularly jarring. While objective data from the SOPHYA study shows that overall PA levels in childhood are relatively high, they plummet dramatically during adolescence, with only 21.5% of 14-16 year-olds meeting the guidelines (Bringolf-Isler et al., 2022). This decline is even more pronounced for girls and youth from lower socioeconomic backgrounds (Delgrande et al., 2024; Lamprecht et al., 2021).

Existing policies, while well-intentioned, often fail to bridge this gap, creating a chasm between inclusive rhetoric and exclusionary reality. This paper argues that a fundamental paradigm shift is necessary. We must move beyond retrofitted solutions and architect a Physical Education (PE) of tomorrow that is inclusive by design. This article introduces the **Enviro Actif 360** project, a pioneering research initiative in Switzerland that provides a blueprint for this transformation. By first conducting a rigorous national-level diagnosis using the Global Matrix framework, the project exposes the systemic invisibility of students with disabilities and lays the groundwork for an evidence-based, co-constructed, and truly inclusive PE. This paper details the findings of the project's first stage and outlines its innovative roadmap for building the future of physical education.

2. CONCEPTUAL FRAMEWORK AND PROJECT OVERVIEW

2.1. THE GLOBAL MATRIX FRAMEWORK

The Enviro Actif 360 project is methodologically anchored in the **Global Matrix** framework, a worldwide initiative by the Active Healthy Kids Global Alliance (AHKGA) to benchmark PA among children and adolescents (Aubert et al., 2022). The framework's socio-ecological model utilizes 11 core indicators—spanning from individual behaviors like **Overall Physical Activity** to environmental factors like **Community and Environment**—to provide a holistic assessment. By assigning standardized grades, the Global Matrix serves as a powerful tool for international comparison and policy guidance. However, its strength in providing a macro-level view can also mask deep-seated inequalities if data on specific subpopulations is not actively sought and analyzed.

2.2. ENVIRO ACTIF 360: A THREE-STAGE RESEARCH DESIGN

Recognizing this, the Enviro Actif 360 project is architected as a progressive, three-stage research program. This sequential design is the cornerstone of its innovative approach, ensuring that each phase logically and purposefully builds upon the last to move from diagnosis to a sustainable, co-created solution.

Stage	Objective	Status
Stage 1	Conduct a national mapping of PA promotion in Switzerland using the Global Matrix 5.0 framework to establish a baseline and critically identify data gaps.	Completed
Stage 2	Investigate the specific barriers and facilitators to PA for students with disabilities through objective measurements (accelerometry) and qualitative interviews, giving voice to their lived experiences.	In preparation
Stage 3	Co-construct and implement a targeted intervention based on Universal Design for Learning (UDL) principles to create empowering and inclusive PE environments for all.	Prospective

3. METHODS

STAGE 1: NATIONAL MAPPING OF PHYSICAL ACTIVITY PROMOTION

3.1. DATA SOURCES AND INDICATORS

The project's first stage involved a comprehensive national mapping exercise adhering to the rigorous methodology of the Global Matrix 5.0. The research team synthesized the "best available evidence" from a wide array of Swiss sources. These included large-scale objective measurement studies like the **SOPHYA cohort** (Bringolf-Isler et al., 2022, 2018), national self-report surveys such as **Health Behaviour in School-aged Children (HBSC) 2022** (Delgrande et al., 2024), and major governmental reports like **Sport Suisse 2020** (Lamprecht et al., 2021). This multi-source approach allowed for a robust evaluation of Switzerland's performance across the 11 core PA indicators.

3.2. RATING PROCEDURE

A standardized rating procedure (A to F, or INC for incomplete) was used. To ensure the highest degree of validity, a formal **Delphi process** was conducted with a panel of national experts in public health, sports science, and education. Through three iterative rounds of review and consultation, a consensus was reached on the final grades, ensuring they reflect a nuanced and expert-validated assessment of the national landscape.

3.3. SPECIFIC FOCUS ON CHILDREN AND ADOLESCENTS WITH DISABILITIES (CAWD)

A central, critical objective of Stage 1 was to create a parallel report card for Children and Adolescents with Disabilities (CAWD). The research team executed a targeted search strategy to locate any data sources disaggregating information for this population. This included searching for studies on inclusive playgrounds (Wenger et al., 2023), access to sports, and specific health reports. The success of this endeavor was entirely contingent on the existence of such data within Switzerland's research and monitoring landscape.

4. RESULTS – STAGE 1

4.1. OVERALL RESULTS FOR THE GENERAL POPULATION

The results for the general population reveal a stark paradox: Switzerland provides a world-class environment for physical activity, but this fails to translate into active behaviors, particularly among adolescents.

Indicator	Grade	Key Finding
Community and Environment	A-	Excellent access to public spaces and infrastructure.
School	B	Strong policies and infrastructure for physical education.
Family and Peers	B-	Generally supportive social environment.
Overall Physical Activity	B-	65% meet WHO recommendations, but this masks a dramatic age-related decline (Bringolf-Isler et al., 2022).
Organized Sport	C+	Only 54% participate, with significant gender and socioeconomic gaps (Lamprecht et al., 2021).
Physical Fitness	C	Moderate fitness levels, with some studies showing concerning secular trends (Knaier et al., 2023).
Sleep	C+	Only ~58% of adolescents meet sleep duration recommendations (Delgrande et al., 2024).
Sedentary Behaviour	F	A clear failure, indicating excessive screen time and passive behavior (Bringolf-Isler et al., 2018).
Active Play	INC	Lack of harmonized measurement tools prevents a national grade (Blinkert, B., & Höfflin, P., 2016)].

While the country excels in providing supportive contexts (**Community and Environment: A-**), the behavioral outcomes are deeply concerning. The **F grade for Sedentary Behaviour** is a major public health red flag, and the steep drop in overall activity during the teenage years signals a systemic failure to maintain engagement.

4.2. THE DATA VOID: CRITICAL GAPS REGARDING CAWD

The most profound finding of this study is the complete and utter data vacuum concerning children and adolescents with disabilities. For all 11 indicators, without exception, the research team was forced to assign a grade of **INC (Incomplete)**. This is not a mere gap; it is a void. There is no representative national data on PA levels, participation rates, or the accessibility of environments for CAWD. This empirical invisibility stands in shocking contrast to Switzerland's official inclusive discourse. Recent work highlights that even pediatric health professionals perceive significant barriers and a lack of sufficient activity for these children, but their views are not yet supported by national statistics (Kisaelev et al., 2023). Without data, these children remain ghosts in the system, and evidence-based policymaking is impossible.

5. DISCUSSION: PAVING THE WAY FOR THE PE OF TOMORROW

5.1. FROM INVISIBILITY TO ACTION

The findings from Stage 1 should not be interpreted as a conclusion, but rather as a foundational impetus for subsequent phases of the Enviro Actif 360 project. The systemic invisibility of children and adolescents with disabilities (CAWD) constitutes a compelling justification for advancing to the next stages of the initiative, demonstrating that the development of a new conceptual and operational framework is not merely desirable but necessary. Incremental adjustments to an existing system that fails to adequately identify and represent a substantial segment of the student population are insufficient. The uniform attribution of an “INC” grade therefore represents a clear call to action, underscoring the need to transition from assumption-based policy frameworks toward evidence-informed, human-centered design approaches.

5.2. STAGE 2 AND 3: THE BLUEPRINT FOR A NEW PE

The subsequent stages of Enviro Actif 360 are the active response to this call and form the blueprint for the **Physical Education of tomorrow**.

Stage 2 is about making the invisible visible. By employing **accelerometry**, it will generate the first objective, quantitative data on the PA levels of CAWD in Switzerland. But it goes further. Through **qualitative interviews** and photovoice methods, it will give these students a voice, centering their lived experiences and allowing them to become experts on their own needs, barriers, and aspirations. This mixed-methods approach moves beyond cold statistics to embrace the rich, complex realities of inclusion and exclusion.

Stage 3 is where the transformation is realized. Grounded in the data and voices from Stage 2, this phase will use **co-construction** with teachers, students, and parents to build a new model of practice. By leveraging the principles of **Universal Design for Learning (UDL)**, it will create interventions that are not adapted *for* disability, but are universally designed *for diversity*. This creates an empowering, flexible, and motivating environment that fosters physical literacy for every student, building a system that is inclusive by its very nature.

6. TOWARD AN INCLUSIVE PHYSICAL EDUCATION: A ROADMAP FOR THE FUTURE

The Enviro Actif 360 project is more than a study; it is a **transferable model for building the PE of tomorrow**. Its true innovation lies in its structured, sequential, and cyclical process: **Diagnose -> Listen -> Co-Create**. This roadmap offers a clear pathway for any educational system seeking to move beyond performative inclusion towards genuine, systemic change.

The expected outcomes will be transformative:

- For **researchers**, it provides a robust methodology to tackle data deserts and generate actionable insights.
- For **teachers**, it will deliver practical, evidence-based, and co-designed tools that build their capacity and confidence to teach in diverse classrooms.
- For **policymakers**, it offers the empirical foundation required to craft intelligent, targeted, and measurable inclusive policies (Stamm, H., & Fischer, A., 2021).

The ultimate vision is a future PE grounded in **objective data**, the **authentic voices of all students**, and **co-constructed, universally designed practices**. This is a PE that does not ask students to fit into a rigid system, but rather designs a flexible and empowering system to fit the needs of every student.

CONCLUSION

This paper has laid bare a fundamental flaw in Switzerland's approach to physical activity promotion: children and adolescents with disabilities are systematically overlooked and uncounted. The Enviro Actif 360 project, through its initial diagnostic stage, has not only highlighted this critical data void but has also forged a clear, innovative, and replicable path forward. By moving sequentially from a national-level diagnosis to deep listening and finally to co-creation, the project provides a powerful blueprint for transforming inclusion from a passive ideal into an active, evidence-driven process. It is an invitation to architects of education everywhere to stop retrofitting the past and start co-designing the inclusive, active, and healthy future that all our students deserve.

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