


Research Article

Educating through commons-based pedagogical practices

Stelios Pantazidis ^{1*} 

¹ Department of Early Childhood Education, University of Thessaly, Greece

* Correspondence: spantazidis@uth.gr

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Abstract: This paper explores the transformative potential of primary education pedagogy to instill the logic and ethics of the commons, emphasizing a paradigm shift away from competitive or individualistic learning frameworks towards those fostering care, reciprocity, and mutual support. Through a year-long action research project in a sixth-grade classroom, this study examines the transfer of Educational commons elements into formal schooling. It argues that such integration requires pedagogical practices that cultivate distinct cognitive and operational modes, enabling students to engage in self-organization of the school classroom and collective knowledge management. The research details the development and operationalization of what is termed as “commons-based pedagogical practices”. These practices are designed to encourage a learning environment that is inclusive and collaborative, characterized by peer learning, co-creation of knowledge, assemblies, peer dialogue and peer accountability. The study juxtaposes theoretical frameworks with practical applications, providing insights into how these pedagogical approaches can be effectively implemented to transform educational settings. The emphasis is placed on creating a classroom dynamic that supports the collective exploration and negotiation of diverse educational concepts, thereby fostering an atmosphere conducive to communal learning and ethical engagement.

Keywords: Educational commons; peer practices; Commoning; childhood studies; alternative pedagogies

1. Introduction

Recent literature increasingly explores the issue of education grounded in the logic and ethics of the “commons”, examining it from both theoretical and practical perspectives (Collet-Sabé & Ball, 2024; Means & Slatter, 2024; Pechtelidis & Kioupkiolis, 2020). Through this concise historical overview of the Educational commons, it becomes apparent that two distinct waves delineate its development, characterized respectively as the macro and micro levels.

Representing a pivotal first wave in academic discourse, this commons-based critique challenges neoliberal education tendencies and advocates for practices more aligned with community values and inclusivity (Bourassa, 2017; De Lissovoy et al., 2015; Korsgaard, 2019). While effectively illuminating the systemic forces at play, these initial contributions fall short of proposing viable, actionable frameworks for actualizing a commons-based educational model, marking a foundational yet evolving stage in the ongoing scholarly conversation. Additionally, there is a notable absence of focus on the agency of children and their envisaged role as equitable participants within the educational discourse (Pechtelidis & Kioupkiolis, 2020; Pantazidis, 2024).

In the second wave of integrating the “commons” philosophy into education, this analysis advocates a shift towards active learning that emphasizes engagement, collaboration, and self-organization, moving beyond traditional teaching methods to a curriculum that embraces personal and collective experiences. This approach aims to dismantle traditional power dynamics, promoting a more inclusive, reflective, and progressive learning environment that aligns with principles of equality, freedom, and democratic empowerment (Pechtelidis et al., 2023). Central to this pedagogical evolution is the cultivation of a participatory culture that enriches educational experiences, actively involves students in their learning processes, and encourages a more egalitarian interaction between educators and

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learners, thereby empowering students to engage in decision-making and redefining traditional hierarchies (Beaton et al., 2024; Biesta & Lawy, 2006).

In examining the autonomy of the “commons” from the influences of the state and market, it is imperative to distinguish between independent and hybrid Educational commons (Pechtelidis et al., 2023). Independent commons are characterized by their operation outside the formal education system, manifesting in non-formal educational settings and learning communities, where the ethos of the commons transcends conventional institutional limits. In contrast, hybrid commons endeavor to weave the principles of the commons into the fabric of public schooling, thereby confronting and seeking to surmount the established hierarchical mechanisms of governance and knowledge dissemination (Pantazidis, 2024; Pechtelidis & Pantazidis, 2018a).

In the realm of independent Educational commons, notable examples from Greece include the Sprogs community in Volos (Pechtelidis, 2018), Mikros Dounias on Lesbos Island (Tsilimpounidi et al., 2019; Varella, 2024), Children’s Orchard in Panagitsa, Pella (Chronaki & Lazaridou, 2023), and the Little Tree community in Thessaloniki (Pechtelidis & Pantazidis, 2018a; Pechtelidis & Pantazidis, 2018b; Pechtelidis & Kioupkiolis, 2020). These initiatives embody autonomous (pre)school education deeply rooted in commons principles, qualifying as educational commons spaces.

Within the ambit of the HORIZON 2020 SMOOTH research project, an extensive examination of commoning practices in education was conducted through fifty (50) case studies across eight European nations, with collaborative inputs from Belgium, Estonia, Germany, Greece, Italy, Portugal, Spain, and Sweden (Cappello et al., 2024; Fernandez et al., 2023; Kioupkiolis, 2023; Moreno-Romero, 2024; Pechtelidis et al., 2023; Tomás et al., 2023). This initiative, primarily focusing on independent commons but also examining hybrid models, involved a wide range of stakeholders in efforts to mitigate educational inequalities and empower marginalized communities. The findings highlight the revolutionary potential of the “commons” principles in education, nurturing values of equality, participation, and communal welfare. While the project did not aim to develop a specific or rigorous pedagogical methodology due to time constraints, it did develop and implement best practices for a certain period.

This manuscript, an excerpt from a doctoral thesis, scrutinizes the infusion of “commons” logic within formal educational contexts, particularly how such principles can be seamlessly integrated into the daily fabric of a public-school classroom, thereby relating to the concept of hybrid Educational commons. It emphasizes the imperative for pedagogical methodologies that embody the spirit of the commons, informed by an extensive research engagement spanning an entire academic year, which pervasively influenced the conduct of day-to-day scholastic endeavors across the curriculum. The discourse delineates the emergence of “commons-based pedagogical practices”, articulating these as exemplars of best practices within the ambit of action research, rather than prescriptive pedagogical edicts. It posits these methodologies as conceptual pathways, eschewing a formulaic approach for educator implementation, therefore promoting a philosophical rather than procedural adoption.

This study was conducted in a rural area of Crete, Greece, within a traditional educational setting. The researcher, serving simultaneously as a teacher, utilized this dual role as a platform for conducting action research throughout an academic year, guided by the principles of the “commons”. The adaptation and practical implementation of “commons” logic were carefully tailored to meet the specific needs of the context, explored through the implementation of commons-based pedagogical practices. The participants, belonging to what is often referred to as a “challenging section”, demonstrated considerable relational difficulties, leading to frequent conflicts and disciplinary issues. However, the abundant energy of these participants was identified as a critical resource for the introduction of more active learning strategies, despite their initial unfamiliarity with such alternative educational practices.

When the action research initiative commenced, the principal inquiry posed by the teacher/researcher concerned the practical application of the commons’ evidence. The incorporation elements of the “commons” was methodically phased in through ongoing experimental procedures. The conceptualization of daily routines as educational practices emerged progressively, following the conclusion of the research. Essentially, practical application informed theoretical developments, and these refined practices were subsequently theorized (see Figure 1) (Pantazidis, 2024). This iterative process culminated in the formulation of a theory termed “Commons-based pedagogical practices”.

Over the course of the investigation, the employment of “commons-based pedagogical

practices” has been recognized as a cornerstone in the routine activities within educational settings. This research delineates these practices as mechanisms of self-development situated in the classroom context, designed to cultivate governance and learning through a grassroots methodology. They function as vehicles for the experiential assimilation of values, as well as the acquisition of skills and knowledge, thereby enabling the seamless incorporation of the “commons” ethos into the classroom environment. This approach deepens an innovative educational model that prioritizes collective engagement and shared responsibility in the learning process.



Figure 1. Educational commons: Theory & Praxis and vice versa.

This framework delineates two interrelated categories: learning via the collaborative management of knowledge (“Commoning practices of learning”) and governance through the classroom’s self-organization (“Commoning practices of governance”), Commoning practices of learning integrates “peer learning” and “co-creation of knowledge” to foster collaborative knowledge development. Similarly, Commoning practices of governance such as “assemblies”, “peer dialogue”, and “peer accountability” cultivate a democratic ethos, actively involving students in decision-making and accountability, thereby democratizing the learning environment. In the subsequent sections (third and fourth), the theoretical landscapes of each practice are analyzed, followed by an exploration of how these theories are translated into praxis. Before going deeper with Commoning practices, the following section explores the classroom as a potential “common”, framing it as a collaborative space that embodies shared governance and mutual learning.

2. School Classroom as a Commons

To elevate the discourse on the concept of the “commons” to a more granular understanding within the daily operational sphere of educational settings, this analysis posits the classroom as a paradigmatic example of a “commons” or, more specifically, as a “common-pool resource” (Ostrom, 1990). The concept of the “commons” embodies a dynamic interaction among three critical components: the resource, the community, and the governance structures that delineate their relationships and rules (Dellenbaugh et al., 2015). Predominantly, the focus is placed on these governance structures, which are linked to the verb “to common” – signifying “to share” and “to commune”.

This verb accentuates an ongoing process by which the “commons” are both established and continuously reconstructed (Caldwell et al., 2019). The primary emphasis is not on the resource but on the community (De Angelis & Stavridis, 2011). A fundamental criterion for classifying something as a “common” involves assessing the relationships among individuals, their practices, and the operational dynamics of their community, which ideally promote more equitable and just social interactions (De Angelis, 2003).

The concept of “commons” embraces the governance of both tangible natural resources, such as forests, fisheries, and irrigation systems, and intangible assets, including knowledge and digital spaces. These communities emphasize resource conservation and governance methods, advancing a diverse set of informal norms and values that serve as mechanisms for governance (Bauwens et al., 2019; Ostrom, 1990).

A distinct characteristic of Educational commons, as compared to other categories of commons such as environmental, digital, and cultural, lies in its extended emphasis on the pedagogical process itself (Pantazidis, 2024). In this context, interpreting the school through the lens of the commons means that every process is fundamentally concerned with learning and teaching. Within this scope, this microcosmic ecosystem is manifested through the integration of both tangible resources, which include spatial arrangements (of school classroom and the overall school environment), educational materials, and physical infrastructures and intangible assets such as knowledge, learning opportunities, and temporal

resources.

Nevertheless, the domain of conventional school education is fraught with numerous challenges. Classroom functions as both a spatial and temporal entity where students and teachers engage in daily interactions, facilitating the transmission and construction of knowledge. Despite its potential as a site for relational and value-oriented development, educational practices often prioritize predetermined objectives that may obscure the significance of interpersonal learning dynamics (Spendlove et al., 2010). Instruction tends to adopt a “technical-professional” approach, emphasizing the acquisition of encyclopedic knowledge over facilitating experiential democratic engagements (Robinson & Aronica, 2015). This environment can inadvertently cultivate passivity among students, who, if non-compliant, are labeled disrespectful and face disciplinary actions (Ball & Collet-Sabe, 2022). Furthermore, the school system perpetuates symbolic violence, enforcing the dominant cultural norms and indirectly subjugating students to maintain control, reflecting the pervasive influence of structural power dynamics within educational settings (Bourdieu & Passeron, 1990; Pechtelidis, 2020).

Given the myriad challenges presented, how can the ethics of the commons be effectively transferred into the school classroom setting? This metamorphosis necessitates a transformation in prevailing perceptions of the school classroom, educational methods, and the roles of teacher and students. Within the educational framework, the school curriculum is no longer perceived as a set of non-negotiable knowledge that is to be transmitted to children and assimilated uncritically. The concept of the “commons” encompasses the development of a paradigm in which time, space, and curriculum are strategically employed to inculcate principles of democracy, equality, and solidarity among students and educators.

Consequently, it is evident that an active participatory stance from its stakeholders – educator and students alike—who should embrace their identities as commoners, is essential. In doing so, they embark on a collective journey of equitable co-management, instituting governance mechanisms and formulating shared norms and regulations aimed at ensuring the enduring prosperity of the common. Within this construct, commoners are envisioned as integral agents in the co-management process, partaking in the sharing of resources, the co-creation of collective knowledge, and the collaborative establishment of governing principles. Under this framework, educational process organized and coordinated through mechanisms that emphasize democratic participation (Pechtelidis & Kioupiolis, 2020).

In this context, children are seen as co-creators, agents, peers, and prospective citizens, actively engaging in the dynamics of school life. They are not only viewed as trustworthy individuals but also as capable decision-makers involved in issues that matter to them. Consequently, Educational Commons challenge the widespread belief that children lack the capacity for political decision-making or participation in public life, a notion disputed by many theorists and the general public alike (Prout, 2004). This approach not only molds their experiences within this context but also grants them a significant role in co-creating it. Essential elements include reflecting on the societal position of children and emphasizing educational strategies, tools, and practices that better the treatment of children and the concept of childhood itself. This enables children to have a more active hand in directing their educational spaces and schedules (Pantazidis, 2024).

Similarly, the teacher no longer functions merely as a transmitter of knowledge and evaluator of the educational process, but rather as a facilitator, companion, and critical friend who fosters caring practices for a fair and inclusive education for all. This shift implies a gradual delegation of some traditional responsibilities from the teacher to the students, thereby expanding the students’ autonomy within the learning environment.

Additionally, the concept of resource prosperity in the pedagogical proposal of Educational commons is perceived as mitigating social inequalities on two levels. First, it can bolster the rights of children compared to adults, positioning them as social agents with an active role in making choices about their own social lives. Second, it has the potential to overturn the reality that the educational process is tailored for a select few. These are individuals who fare better, perhaps due to their mastery of linguistic codes, possession of cultural capital, or alignment with the developmental norms of typical childhood models (Christensen & James, 2017 Pechtelidis & Pantazidis, 2020).

Educational environments, despite their ostensibly uniform settings, contribute to the perpetuation of social inequalities. The variance in students’ abilities to engage autonomously and make decisions in a group context – where some are psychosocially ‘absent’ despite physical presence – deepen the complexities of these inequalities. This phenomenon highlights the nuanced ways in which educational experiences contribute to the reinforcement

of social stratifications (Nash & Lauder, 2016).

3. Commoning Practices of Learning

Advocating for Educational commons ethics paves the way for an innovative approach to education, aiming to revolutionize the traditional dynamics of teaching and learning. Pechtelidis and Kioupiolis (2020) envision a shift towards a participatory model, where educators evolve from conventional roles of instruction and assessment to act as facilitators, mentors, and co-learners with their students. This paradigm shift seeks to foster a more engaging and reciprocal educational environment (Pechtelidis & Pantazidis, 2018b).

In addressing the integration of the “commons” principles into educational paradigms, this paper outlines the development of an adaptable active learning framework. Initially, the educator/researcher faced uncertainties regarding its utility and classroom application. Nonetheless, a strategic commitment was made toward the development of an environment that was consistent with active participation, collaboration, and student-controlled organization. This approach aimed to circumvent traditional didactic monologues, meaningless rote learning, the neglect of students’ personal and collective experiences, and the authoritarian imposition of curricular content as indisputable truth.

Subsequently, pedagogical practices oriented towards knowledge issues, notably “peer learning” and “co-creation of knowledge”, were systematically incorporated and evolved. In this learning framework, students learn as equals, and the atmosphere is amiable, congenial, and highly participatory (Mitra et al., 2016). The curriculum was tailored to meet the students’ interests and needs, with the educator/researcher devising activities that facilitated learning as an outcome of educational self-organization, not mere knowledge transmission (Scardamalia & Bereiter, 2021). Emphasizing the importance of collaborative engagement, students were encouraged to jointly navigate and solve real-world problems, thereby enriching their collective knowledge base.

3.1. Peer learning

3.1.1. Theoretical landscapes of peer learning

Educating children on knowledge management without the educator being the exclusive conduit presents a significant pedagogical challenge. The integration of “commons” principles transcends mere ethical indoctrination, favoring a non-dogmatic, flexible application beyond conventional educational confines. This approach necessitates collaborative experimentation and co-education with students to foster a “realistic utopia”, leveraging novel cognitive and action-oriented methodologies. Advocacy for empathetic pedagogical practices, particularly peer learning, emphasizes the importance of mutual support, self-organization, and equitable roles between educators and students, delineating a shift from traditional teaching paradigms to a more engaged, cooperative learning environment.

Therefore, learners are left on their own to learn by themselves, hence developing autonomy to think and interpret the world critically without the need to depend on the authority of others. This modality is delineated into three principal components: mutual cooperation and mutual help, self-organization, and the parity of educator and student roles. Peer learning bears resemblance to collaborative group instruction, sharing foundational elements of cooperation. Its distinguishing characteristic, however, lies in its emphasis on self-organization and collective management—features that are notably absent in conventional pedagogical models, thereby facilitating learning autonomously without the educator's direct intervention.

Rancière (1987) challenges conventional educational paradigms through his “universal teaching” theory, which critically assesses the efficacy of traditional didactic methods. This approach suggests that the act of repetitively seeking to clarify concepts to students may inadvertently suppress intellectual development. Rancière advocates for a radical pedagogical stance, epitomized by the statement, “I must teach you that I have nothing to teach you”, promoting a learner-centered environment. This approach is meant to provide a platform for learners to internally interact with knowledge and, in that sense, to internalize autonomy and empowerment by being critical negotiators and interpreters of the world without dependence on authoritative interpretations.

Through the innovative “Hole in the Wall” and “Granny Cloud” projects, the potential of learning as an outcome of educational self-organization was uncovered (Mitra et al., 2016). Such initiatives enhance the effectiveness of creating a self-organized learning environment

in which much is done, like placing computers in Indian slums and introducing children to caring online mentors from the UK. The educator's role evolves to initiating the learning process rather than directly imparting knowledge, thus observing the natural emergence of learning among students.

The concept of "legitimate peripheral participation", introduced by Lave and Wenger (1991), moves beyond the conventional teacher-student dynamic to involve a broader array of participants and participatory relationships. In this model, learners engaged in apprenticeships can become "experts", mentoring newcomers. This approach emphasizes the significance of diverse interactions between more and less experienced individuals for the communal transmission of practical skills, contrasting with traditional, assimilation-centric education in a dichotomous setting.

The principles of peer learning are effectively encapsulated in the "Peeragogy Handbook", which outlines methods for co-managing knowledge within a group. This resource illuminates how group members collaboratively learn about any subject using tools and knowledge available on the internet, even without any member being a specialist in the topic and notably in the absence of a traditional educator (Corneli et al., 2016).

A bottom-up coordination of the learning process is identified as a vital element in the Educational commons, facilitating a radical shift in roles and relationships between students and teachers. In this context, the "protégé effect" is operationalized, referring to instances where children assume the role of the teacher for their peers, thereby gaining a deeper understanding of the learning process and exhibiting increased motivation compared to when studying independently (Iwase et al., 2021).

3.1.2. Peer learning: from theory to praxis

The components delineated above encompassing the notion of the "ignorant schoolmaster", self-directed learning, apprenticeship models, reciprocal teaching, autonomous learning absent an educator, and dialogic learning, constitute integral elements amenable to incorporation within routine educational praxis. However, the realization of these elements faces obstacles arising from entrenched disciplinary frameworks that limit the potential for significant change. The context requires real commitment and perseverance toward the goal of learner autonomy and mutual support, which, therefore, reduces the dependency of learners on the traditionally omnipresent, explicative, and authoritative pedagogue.

The concept of "Role Reversal" (see Graziano, 2017; Slater & Inagawa, 2019) between educator and students has been investigated as a strategy to bolster peer learning within classroom environments. This methodology encompasses a multitude of applications, such as:

a) students serving as teaching assistants or co-teachers, facilitating discussions, and leading classroom activities. To ensure fairness and equality, this role is rotated daily among students, promoting active participation and deeper understanding through peer-led teaching methods. In an educational setting, a student may assume the role of facilitator in place of the instructor, allocating speaking opportunities to peers and leading discussions. Additionally, this student can undertake the delivery of lessons, elucidate on specific topics, and utilize the chalkboard for instructional purposes.

b) Children function as peers in this educational model. Initially, the educator introduces a topic (e.g., how to solve equations or when to use -ing in verbs) and allocates time for students to explore available resources (typically the textbook or supplementary material) to learn. Students collaborate with their peers to accomplish the task. Upon completion, they are encouraged to move freely within the classroom to assist others. The educator deliberately refrains from being the focal point, instead circulating among the desks to facilitate learning.

c) The educator initiates the instructional sequence by presenting a specific topic (for instance, the methodology for solving equations or the grammatical rules governing and subsequently grants students the opportunity to engage in independent exploration using designated resources, which predominantly include the school textbook or additional supplementary materials. This method fosters collaborative learning, as students are encouraged to work in tandem with their peers to achieve a comprehensive understanding of the subject matter. Upon fulfilling their individual learning objectives, students are permitted to navigate the classroom autonomously, offering assistance to their peers as needed. Throughout this process, the educator assumes a non-central role, opting instead to circulate within the classroom to provide support, thereby emphasizing a learner-centered environment.

d) Designating a period for “self-organization” enables a strategic role reversal in the classroom. The educator initiates this by indicating a lack of prepared lessons, thereby requiring students’ collaboration for the forthcoming period. This approach, based on “The Ignorant Schoolmaster” by Rancière, should enable learners to take control of their learning, assume educational roles, and prepare lessons for themselves. This way, a sense of responsibility towards their educational process will be ingrained, making them much more active participants. The educator’s role transcends that of merely dispensing knowledge to passive and heteronomous consumers. Instead, educators are positioned to aid children in becoming autonomous, collaborative, and accountable individuals. The bottom-up coordination of the learning process is essential within the “commons” pedagogical approach, facilitating a significant shift in roles and relationships between students and teachers.

Educators are envisaged as “critical friends” (Costa & Kallick, 1993), trustworthy individuals who do not simply provide ready-made ideas, knowledge, and solutions but provoke thoughtful inquiry. As peer learning and co-teaching unfold, teachers gain more opportunity to support “weaker” students, thereby fostering an even more inclusive practice. This approach also promotes self-regulation and autonomy among students, reducing their dependency on adult explicators.

3.2. Co-creation of knowledge

3.2.1. Theoretical Landscapes of Co-creation of knowledge

The approach modern schools take towards children is significantly problematic. Specifically, children are perceived as mere consumers of knowledge rather than co-producers, under the presumption that they are still developing, still innocent, still fragile, still immature, and still unprepared for equal participation in society (Murriss, 2018). Within the Educational commons framework, perceiving children as commoners facilitates the adoption of commoning practices in learning, where they actively participate as co-producers of knowledge.

In the digital era, people can quickly access information online, generate ideas using algorithms, find innovative solutions, and create original content. Despite the rapid progress in technology and artificial intelligence, which now enables machines to produce knowledge, our educational systems still largely focus on having children and youth consume information, creating a paradox.

Educational institutions can draw inspiration from technological innovations, evolving into communities where active knowledge engagement, exploration, meaningful discovery, co-creation, and solidarity are core elements. Educators are encouraged to persistently innovate towards enhancing the quality of education, steering clear of practices that employ coercion, threat, or pedagogically unsound assessments purportedly aimed at educational improvement. This necessitates a dual approach: resisting the commodification of education and implementing pedagogical strategies such as “knowledge co-creation” to cultivate an education rich in substance and meaning.

To co-create knowledge within the classroom signifies engaging in a process where knowledge is not merely transmitted from one individual to another but collaboratively constructed through exploration, social interaction, and cooperation, thereby producing individualized meaning. This pedagogical approach facilitates the active involvement of all students in a learning trajectory wherein they actively seek out and impart personal significance to the knowledge at hand. Additionally, this method does not inherently conflict with peer learning – which itself advances the acquisition of necessary knowledge – but can be strategically utilized to reinterpret existing knowledge through novel understandings and significances.

The implementation of knowledge co-creation practices possesses significant theoretical and practical implications for the commons-based pedagogical practices. It advocates for horizontal organizational structures, equitable distribution, joint management, and the collective generation of knowledge. In this collaborative framework, the educator and students collectively aim not towards a predetermined outcome but rather engage in a dynamic knowledge production process that is inherently driven by the participants themselves. Central to this discourse are the concepts of “rhizomatic learning”, as proposed by Deleuze and Guattari, and “nomadic pedagogy” (Dahlberg & Moss, 2005), which are instrumental in understanding the learning process and knowledge production (Bazzul & Tolbert, 2017; Cole, 2017).

Rhizomatic learning is acknowledged as a collaborative and relational endeavor, promoted through problem-solving, critical thinking, knowledge synthesis, and the practical

application of skills in real-world situations. It necessitates differentiating rhizomatic logic from the predominant arborescent (tree-like) logic. The former, characterized by its dynamic, flexible, and creative nature, embraces change, complexity, and heterogeneity, signifying a constantly evolving dynamic world. This approach contrasts with the linear, hierarchical, and static nature of traditional educational models, proposing a paradigm shift towards a more interconnected and adaptable learning process.

The prevailing thought process in contemporary education predominantly adheres to a hierarchical, rational, and argumentative framework. This approach stands in contrast to Deleuze and Guattari's philosophy, which appreciates and respects a plurality of viewpoints. Their theory advocates for a transition towards a non-linear, nomadic conceptualization of thought, challenging the conventional linear progression associated with educational paradigms. This shift encourages embracing a dynamic, flexible methodology that moves beyond rigid foundations, promoting a continuous, evolving process of learning and understanding.

Nomadic pedagogy, akin to the nomad, is characterized by its perpetual motion, existing always in a liminal space, devoid of fixed starting and ending points, and without borders. Through this nomadic perspective, learning, knowledge, and thought can be comprehended as processes not confined to traditional boundaries. It shifts the focus onto the learning process itself, rather than its conclusion (Pechtelidis, 2020a). Communication is presented as a dynamic relationship where the outcome transcends the sum of its individual information components. The classroom is reimagined not as a community for the preservation of common opinion but as a space for free exchange among peers, meaningful for all participants (Snir, 2020). Meaning is understood more as an outcome that challenges and surpasses conventional common sense.

The concept emerging from Deleuze and Guattari's proposition fosters learning from educators who encourage "do it with me", as opposed to those who mandate "do it as I do" (Deleuze, 1995). This practice differs from peer learning at a crucial juncture, as the educator is not merely present for encouragement but actively collaborates with students, participating in the co-construction of knowledge through a rhizomatic approach.

Cormier (2008) posits that rhizomatic learning enables children to effectively co-manage knowledge and contribute to the curriculum's development. This pedagogical strategy seeks to subvert the traditionally hierarchical, ideologically oriented, static, and prescriptive nature of knowledge dissemination and acquisition, promoting a more collaborative and dynamic educational model.

According to Fielding and Moss (2011), the learning process is conceptualized as a collaborative endeavor of co-construction or co-creation, free from the compulsion to assess learning outcomes. Knowledge is perceived not as an entity to be transferred and replicated but as a constructivist process where individuals forge their own rationales and ascribe meanings to things, others, nature, events, reality, and life itself. This learning trajectory is inherently personal. Yet, the interpretations, explanations, and significances provided by others are indispensable to the edification of knowledge. Under this paradigm, knowledge emanates from a web of relationships, constituting a collective social construct. Although the tempo and modalities of learning are intrinsically personal and resist standardization by external entities, it does not negate the necessity of others in the pursuit of self-awareness.

Rhizomatic learning intersects with alternative meaning-making approaches, particularly the participatory learning perspective offered by Lave and Wenger (1991). They conceptualize learning as a social practice where meaning emerges and knowledge is co-constructed within participant communities. Rather than focusing on cognitive processes and conceptual frameworks, the emphasis is on the types of social engagements that facilitate and enrich the learning environment. Defined by participation, learning evolves into a dynamic, perpetually renewable network of relationships, underscoring that behavior, learning, and cognition are deeply rooted in the interactions of the social milieu.

Learning transpires when individuals actively participate in tasks, projects, and discussions, deriving meaning from their experiences, a concept that closely aligns with social interaction and horizontal equity. However, educational dynamics often encompass power relations, transparency, and ethics, echoing Antonio Gramsci's assertion that pedagogical relationships are inherently hegemonic. Integrating the logic and ethics of the "commons" into educational practices can democratize these interactions, suggesting that peer learning methodologies may facilitate such a transformation (Antoniadis & Pantazis, 2020).

According to Scardamalia and Bereiter (2021), the co-creation of knowledge among children would be beneficial if it led to the generation of genuine ideas aimed at addressing

authentic problems. This aspect differentiates their approach from the constructivist learning theory, where children construct their knowledge more actively. Constructivism primarily deals with the internal processes of integrating new information into existing knowledge rather than the actual creation of knowledge. These authors emphasize that educators must define what constitutes knowledge and the methods of its production. Specifically, they should focus on real ideas that contribute to solving actual problems, which can enhance the community's knowledge base. Knowledge is not the ultimate goal of learning. Whenever a problem is solved, knowledge is created; however, for it to be recognized as knowledge creation, the solution must hold value for others (local community, school, classroom, etc.) (Scardamalia & Bereiter, 2021).

Célestin Freinet's "printing press" methodology represents a significant pedagogical innovation, opposing conventional textbook use by encouraging children to co-create books. This approach promoted more active involvement of students with their immediate natural and social environment—direct observation and study led to deeper understanding and connectedness. By returning to the classroom to share findings, print texts, and produce a magazine for wider distribution, students were motivated by the anticipation of their work being published and read, thus imbuing the learning process with profound meaning. This technique, adaptable with or without modern technologies, advances literacy, individual and collective expression, exploration, and self-organization (Mason, 2023).

Each idea previously discussed offers a unique and valuable contribution to the pedagogical practice of co-creating knowledge. Notable elements include the establishment of meaningful engagement, active participation, the promotion of horizontal and equitable relationships between educators and students, and the cultivation of ideas. Furthermore, it encourages an outward-looking perspective by addressing authentic and speculative problems, and nurtures the use of textbook content as thematic exploratory resources.

3.1.2. *Co-creation of knowledge: from theory to praxis*

The educator/researcher explored two knowledge co-creation strategies: a structured approach through formal curriculum and an unstructured approach driven by students' interests. The structured approach utilized the flipped classroom model across various subjects, while the unstructured method was implemented via a collaboratively named "Workshop of Creation & Research", decided during an assembly. These methodologies highlight the potential for pedagogical innovation, offering space for experimentation, unpredictability, and discovery within the learning process.

Structured method

The flipped classroom paradigm represents an instructional strategy where traditional classroom dynamics, specifically the allocation of activities within and outside the classroom, are inverted to enhance student engagement and active learning. Rather than adhering to direct teaching methods, students are tasked with preparing for lessons at home through engagement with additional materials, thereby acquiring a foundational comprehension of the topics to be further explored during classroom sessions. This methodology not only facilitates the acquisition of knowledge but also promotes its application within creative and analytical processes, thereby enriching the educational experience.

The flipped classroom emerged as a component in peer learning and knowledge co-creation. The distinction in its application between both practices lies in its use primarily for sharing through clarifications, corrections, and completion of exercises in Mathematics and Language, without necessarily incorporating a creative element in the former scenario.

Within the framework of knowledge co-creation, instructional time may be structured around a specific assignment, which students are invited to complete. The role of the educator shifts from that of an instructor to a facilitator, with a primary focus on curating activities that foster collaboration among students and facilitate the application of newly acquired insights.

This initiative was designed to utilize preparation as a basis for enabling children to engage with previously acquired knowledge, facilitating their journey towards novel interpretations and pathways of thought, thereby expanding into new domains of possibilities. This method diverts from conventional rote learning and assessment practices towards a more exploratory and critical examination, emphasizing the effort to eschew rote memorization, deemed sterile and counterproductive to educational principles.

In this innovative educational context, educators cede their traditional "monopoly on authority", leading to a shift where students are challenged by the absence of knowledge being directly transmitted in a simplified manner. It is crucial, therefore, to illuminate the importance of demonstrating specific practical experiments, as the flipped classroom model

frequently encounters misconceptions regarding its practical application.

To shed a light on the practical application of missions in the classroom, an example from a History lesson on the “Second Siege of Missolonghi” is provided. Beyond the textbook, students had access to materials such as videos, lesson diagrams, and guiding questions sent via email to prepare at home. Tasked with using their knowledge to propose actions as residents of Missolonghi, the activity fostered unexpected outcomes and creativity. Working in groups, students utilized various mediums for their presentations, emphasizing analysis, information evaluation, and creative skills application.

The educator/researcher consistently introduced innovative concepts, undertook experimentation, conducted assessments, and made adjustments in an effort to ascertain the preferences of the students. On numerous occasions, the educator allowed the instructional process to evolve independently, abstaining from intervention or influence, with the objective of genuinely observing the potential trajectory of the learning experience.

Unstructured method

The “Workshop of Creation & Research” emerged from the educator/researcher’s realization that daily, numerous compelling inquiries and ideas presented by students went unexplored or unanswered. These concepts, often detached from the standard curriculum and neglected by adults, could relate to genuine societal issues requiring resolution and the active participation of both students and the educator/researcher. Inspired by this insight, students were encouraged to document their queries on paper, contributing them to the “interest box” for collective exploration.

Following deliberations with the student body, a consensus was reached to institute a bi-hourly session every Friday dedicated to exploring one or more topics from the “interest box”. In this arrangement, the educator/researcher and students, organized into groups, extracted papers from the box and selected emergent questions or topics for examination. The selection process was facilitated through dialogical engagement, with the chosen topics subsequently documented on the classroom board. Notably, the subjects of inquiry often varied widely in scope. For example, while some students expressed interest in understanding the production process of chocolates, others sought to explore the ideological underpinnings of Nazism.

In the culmination of the project, the student cohort autonomously elected the medium through which to disseminate their research findings. Options spanned a spectrum from rudimentary verbal briefings to more intricate manifestations, such as digital presentations, dramatized enactments, or tangible models. Subsequent to project culmination, outcomes were disseminated within the broader (inter)local community through the digital conduits afforded by the “Network of Cooperative Schools” online radio and the dedicated classroom weblog.

This methodology was consistently applied during the enforced quarantine phase triggered by the Covid-19 pandemic, a period which necessitated the adoption of remote education practices. A notable divergence in this virtual context was the unfettered access to resources and a collaborative document afforded to all participants, significantly enhancing the co-creative and exploratory process.

4. Commoning Practices of Governance

This segment scrutinizes the roles of assemblies, peer dialogue, and peer accountability in augmenting the intentional actions of children within educational settings. It centers on the participation of children in the peer governance of classroom environments, supporting the perspective that children are active, capable social agents in the present, endowed with the ability to engage in the school’s decision-making processes.

Throughout these practices, efforts were made to encourage students not to simply adhere to the conventional rules and “musts” of traditional schooling but rather to voice their authentic concerns on matters that engage them, and to take on responsibilities arising from rules they had established. The rules were continually redefined in weekly class assemblies, encouraging an environment where adherence to rules coexisted with their constant negotiation, mirroring the ethos of “commons” logic. This approach highlights the balance between compliance with established norms and the fluid negotiation characteristic of a “commons”-inspired educational setting.

Commons-based pedagogical practices can extend their influence beyond the realms of learning, knowledge acquisition, and the explicit curriculum, impacting also the facets of the hidden curriculum. Essentially, explorations into peer governance reveal underlying dynamics

of student dependency on aspects such as regulatory frameworks, daily routines, and the orchestration of classroom activities (see Jackson, 1968).

In this context, the phrase “leaving it in the hands of the children” transcended mere rhetoric. It did not imply a superficial delegation of control where, beneath the veneer of autonomy, the teacher/researcher retained ultimate authority. Instead, the approach signified a genuine empowerment of the students, granting them substantive authority within the classroom. This empowerment was not without its boundaries; the teacher/researcher judiciously excluded certain “far-fetched” propositions from the scope of co-decision, ensuring that the framework for student autonomy remained constructive and aligned with educational objectives. Within this operational paradigm, the principles of equipotentiality and holoptism were pivotal.

The concept of holoptism (Araya et al., 2012), plays a central role. Holoptism refers to the capacity of each individual within a group to have a comprehensive understanding or oversight of the collective’s entire scope and activities. These ideas were then amalgamated with the notion of trust, proposing a more sophisticated framework where transparency and mutual awareness feature centrally in building a credible environment.

Furthermore, the principle of equipotentiality (Kostakis & Bauwens, 2021), is instrumental in understanding the dynamics within these collaborative settings. Equipotentiality posits that all members of a group should have equal opportunity to participate and contribute, irrespective of their individual capacities or the variance in their understanding of relationships. This principle underlines the importance of an inclusive approach to participation, where the potential contributions of all members are recognized and valued, regardless of their differing levels of expertise or knowledge.

Together, these concepts – holoptism and equipotentiality – provide a theoretical foundation for analyzing and designing more egalitarian and transparent systems of co-management and governance. They emphasize the significance of creating environments where trust is built through shared visibility and understanding, and where every participant is afforded equal opportunity to contribute to the collective endeavors.

4.1. Assemblies

4.1.1. Theoretical landscapes of Assemblies

Central to the espoused educational paradigm is the development of a regulatory framework, autonomously crafted by the student cohort. This initiative serves to instigate a culture of accountability, compliance with consensually established norms, and proactive involvement in conflict resolution. Such an approach transfigures the concept of democracy from an abstract, theoretically absorbed notion into a tangible reality, stressed by a collective and participatory decision-making process, rather than a focus on the decisions per se.

This section initially delineates the operational modalities of assemblies. Subsequently, it reviews select empirical and scholarly investigations concerning the utilization of assemblies. The categorization employed herein is predicated upon the nature of the assembly and its decision-making processes. The term “assembly” is favored over alternatives such as ‘council,’ and “meetings”, primarily due to its alignment with the term “assembly” as utilized in academic discourse on social movements and cooperative initiatives (Stavrides, 2015).

Central to the empowerment of students within this educational schema is the strategic employment of assemblies as a conduit for expression and participatory governance. These congregations are not merely forums for the voicing and redressal of grievances; they also function as platforms facilitating critical discourse among students on matters affecting their quotidian experiences. The delegation of decision-making authority to the student body through such assemblies cultivates a sense of proprietorship and self-efficacy, thereby empowering learners to effectively communicate their needs and viewpoints to educators, administrative leaders, and the broader community.

Expanding on this notion, the “commons” model eschews the notion of universal blueprints for project success, advocating instead for the adoption of practices that lay the groundwork for a reimagined social fabric. According to Bollier & Helfrich (2019), these practices are not aimed at delineating a fixed set of steps towards achieving predetermined outcomes; rather, they serve to establish a foundational ethos for social interaction and engagement, predicated on principles divergent from conventional pedagogical models. This reorientation towards process-oriented, community-centric educational practices offers a fertile ground for redefining the contours of educational success and student engagement. Through the perspective of peer governance, the assembly process does not involve conflict, endless debates, counter-arguments, winners and losers, but is a creative synthesis of

proposals so that everyone is to some extent satisfied.

Exploring this concept further, the subsequent sections will examine pertinent case studies showcasing these ideals in action. A notable example includes the Anchor Project in Cotia, São Paulo, where innovative education practices prioritize open community learning and active local involvement, particularly emphasizing children's participatory rights in determining their educational journey through consensus-driven decision-making processes. A notable method employed is the bulletin board technique, facilitating discussions on topics proposed by students for upcoming meetings, thereby cultivating a democratic and participatory learning environment (Singer, 2017).

Sudbury-style school assemblies, which involve students in decisions related to school governance, curriculum, staffing, and budgeting, demonstrate a complex interplay of autonomy and neoliberal influences. Wilson's (2015) critical ethnographic analysis deepens a contradiction within these schools: despite their overt resistance to neoliberal educational policies, the underlying rhetoric of meritocracy, choice, entrepreneurship, and the commodification of education betrays a neoliberal ethos in their operational practices. This dichotomy highlights the challenges of aligning educational philosophy with daily practice in alternative schooling models.

According to the systematic literature review conducted by Pache-Hébert, Jutras, and Guay (2014), assemblies in educational organizations can be democratically empowering. Yet, the transition from theoretical democracy to its practical application in schools poses significant challenges. The research suggests a nuanced approach towards democratization, emphasizing the importance of teacher training, the integration of assemblies as a coherent part of the educational experience, and the collective contribution to a more harmonious coexistence within the school environment. This holistic perspective indicates the necessity of a committed, inclusive, and continuous effort to truly embed democratic values in school culture.

Griebler and Nowak's (2012) systematic literature review on assemblies illuminate their potential in enriching children's skill sets, positively impacting their interpersonal relationships and interactions with educators. Effective assemblies are characterized by their structured decision-making processes, representation strategies, frequency, and duration, alongside the supportive role of teachers. Furthermore, the efficacy of assemblies is significantly influenced by the educators' proficiency in facilitating these gatherings, highlighting the importance of targeted training and experience in optimizing the benefits of assemblies for children's development.

Fundamental to the creation of an environment that supports this educational approach is the enhancement of competencies critical for democratic engagement, including active listening, dialogue, and reciprocal respect. Concurrently, the pedagogical role of the instructor undergoes a shift, aligning more closely with that of a co-participant in the educational journey.

4.1.2. Assemblies: from theory to praxis

The assemblies commenced with the onset of the academic year and constituted a pivotal aspect of the project's framework. Initial discussions with the student body led to the adoption of a non-democratic format for the assembly, with decisions being made through a show of hands. A specific weekday was designated for these assemblies, allowing for a duration of one to two instructional hours, primarily during the Social and Civic Education classes.

Prior to the commencement of each meeting, the teacher/researcher consistently briefed the students on the procedural conduct, stressing the importance of respecting divergent viewpoints and maintaining a serene environment conducive to dialogue. This focus on procedural awareness and respecting diverging views was instrumental in creating a setting in which constructive discourses were permitted to flourish.

The agenda for discussion was democratically generated by the students themselves, with each proposed topic being catalogued by the teacher/researcher on the whiteboard without the imposition of a predetermined order for discussion. Subsequent to this collective brainstorming phase, the allocation of specific roles within the assembly was conducted. The primary roles identified for the smooth facilitation of the meeting included a facilitator, one or more assistant facilitators, and a secretary.

In determining the assignment of these roles, the teacher/researcher solicited volunteers, ultimately making the selection with a strategic aim: to ensure a broad and equitable distribution of leadership experiences among the students. This approach was predicated on

the belief that all students, or at the very least as many as were willing, should have the opportunity to engage in these roles, nurturing a sense of inclusivity and shared responsibility in the governance of their communal discussions.

The facilitator's role was of paramount importance within the assembly structure, as this individual was tasked with moderating the discourse, granting speaking opportunities, and synthesizing discussions through restatements and summaries. In executing these responsibilities, the facilitator was supported by the secretary, whose duties encompassed note-taking, aggregating proposals, and managing the voting process. Additional support was extended by assistant facilitators, who were tasked with ensuring the maintenance of a tranquil and orderly environment conducive to productive dialogue.

The documentation of these proceedings was meticulously carried out by the secretary, who recorded the minutes in a designated "meetings notebook". This systematic approach to documentation ensured a tangible and accessible record of discussions, decisions, and action points, thereby contributing to the transparency and accountability of the assembly process.

Subsequent to the resolution of discussion topics and role assignments, a modification in the seating arrangement was implemented, transitioning to a circular configuration to facilitate eye contact among participants. The very enabling of this arrangement was an atmosphere of inclusivity and open dialogue. Upon commencement of the discussion, the facilitator introduced the first topic, such as classroom cleanliness, and initiated the floor to contributors. Typically, priority was given to the proponent(s) of the topic under discussion, thereby facilitating a targeted and relevant exchange of ideas.

In instances where divergent viewpoints emerged, particularly when more than two participants held opposing perspectives, a structured dialogue was facilitated within the circle. This methodology allowed for direct interaction between disagreeing parties, enabling a thorough examination and consideration of contrasting arguments by the assembly at large.

The role of the teacher/researcher was strategically circumspective, primarily focusing on ensuring adherence to the procedural framework of the assembly. Interventions were primarily reserved for instances of procedural deviation, with an emphasis on guiding the facilitator or assistant facilitators in the effective management of the meeting. This oversight function was critical in maintaining the integrity and productivity of the assembly discussions.

As the academic year progressed, a notable evolution was observed in the children's ability to self-organize and coordinate the assemblies with minimal intervention from the teacher/researcher. This improvement was evident in their enhanced capacity to propose topics, respect the speaking rights of others, and collectively arrive at decisions. Such advancements are indicative of the students' developing competencies in self-governance and democratic participation.

However, it is important to acknowledge that this progression was not linear, as there were instances that necessitated additional guidance to maintain the integrity of the process. These challenging moments served as valuable learning opportunities, reinforcing the importance of procedural adherence and the constructive management of disagreements. In general, the progressively improved participatory maturing of the children through the year shows the effectiveness of such an assembly form in developing dialogic culture, cooperation, and respect.

4.2. Peer dialogue

4.2.1. Theoretical landscapes of peer dialogue

Peer dialogue points to supporting an equitable communication between students and instructor(s). In the school context exists a conflict between the disciplinary power of the instructors and the students' resistance to the education process. This practice is crucial for co-creating a harmonious environment through mutual respect and understanding, making equitable relationships between educators and students fundamental for engaging in co-shaping daily school life.

Broadly, peer dialogue emphasizes an alternative perspective on children and childhood, amplifying their voice. Concerning childhood studies (Alanen, 2019), it is understood that trust is placed in the students' abilities so that a more equal relationship may be built (Haynes, 2008). Thus, children, irrespective of their age, are recognized as equal citizens.

Moreover, the manner of addressing a child not only reflects a deeper prevailing perception of their abilities but also influences the extent to which they take adults seriously and respond responsibly (Pantazidis & Pechtelidis, 2018b). The fact that children gain the right to agree on the same choices regarding when, how, and what they do increases their commitment to the process (Hope, 2018).

Martin Buber (1996) articulates the concept of dialogue as a manifestation of a distinct form of immediacy and connection among at least two individuals, characterized by an absence of conscious intent to exert influence upon one another. For Buber, dialogue represents a mode of communication wherein individuals engage with each other devoid of any utilitarian objectives, devoid of specific expectations from the counterpart, and without their interaction being confined by preconceived notions derived from past encounters.

The softening of power dynamics within educational settings does not diminish the educator's respectability but rather allocates space for children's deliberate action. Educators are tasked with intervening constructively, motivating, establishing boundaries, and manifesting trust in students' reasoning and experiences. This approach potentially transforms the educational experience into a more meaningful and productive endeavor for students, thereby enhancing the value of school life for all members of the educational community.

In the context of education, the "commons" aim to leverage dialogue as a staple of daily school life. Notably, peer dialogue, within the framework of the "commons" as pursued by this work, is not utilized merely for knowledge acquisition but primarily to foster skills and democratic dispositions. To articulate differently, it is considered more as a means of coordination with the ultimate goal of peer governance within the classroom rather than a teaching method.

This metamorphosis facilitates a progression towards a dialogical framework reminiscent of Paulo Freire's philosophy (2018), wherein the exchange of ideas is not confined to interactions between educator and learner but broadens to include learner-to-learner discourse. Such a methodology effectively transfers the locus of initiative to the students themselves, empowering them to steer discussions and adopt a more pronounced role in their educational trajectory.

More generally, Freire (2018) used dialogue as a way of learning, replacing the teacher's monologue and children's passivity with a more emancipatory and active form of communication. This gave rise to the development of the concept of dialogic learning, but not in the way it is widely exploited today. Contemporary educational dialogue prioritizes efficiency, diverging from its initial expansive intent towards a focused utilitarian approach to improve learning outcomes. Compared to this, the key difference is that Freire, with dialogue, placed great emphasis on ideology (he refers to it as ethics) with a focus on developing critical consciousness and literacy among the oppressed (low socio-economic strata).

The Paulo Freire-based dialogue can be likened to a ball, which the teacher controls. Teacher can give it to a child to express his or her opinion and the child returns it to him or her to determine where he or she will end up next. The teacher asks the necessary questions and guides the dialogue based on the children's views, which "fit" what he/she has in mind as the destination of the dialogue.

The case of Freirean dialogue in the language of peer-based production based on the "commons" can be illustrated as follows: the teacher is the regulator and the communication hub between the children (users). The children can only communicate with the teacher who is solely responsible for the course of the dialogue. In the "language" of the "commons", there can be no intermediate communication node between users, but only a direct connection between them. In other words, children are trained to exchange information with respect for others, to share personal experiences and to express their views honestly in a safe context. At the same time, the teacher is another user rather than an intermediary communication hub. Most importantly, the course and outcome of the dialogue is not determined by the teacher but by those involved in such a process.

For a better understanding of the above, it is important to make a redistribution of power in terms of the teacher-student relationship. Their relationships are historically and socially situated, and acquire social meanings, which are governed by power relations. Conversely, peer dialogue is not about the position of power or the status of the one who speaks, but is based on the argumentation of the individuals involved in it (Flecha, 2000). From this perspective, truth is something contingent that is produced and evolves through the elements that individuals place within it. At the same time, knowledge and school life are negotiated as new choices are perceived, creating new directions of active participation, ways of communication, co-creation of knowledge and collective action for children.

4.2.2. *Peer dialogue: from theory to praxis*

The intricate dynamics of power, subjectivity, and interpersonal relationships play a crucial role in the creation and evolution of governance mechanisms within communal spaces,

or the “commons”, as explained by Partelow and Manlosa (2023). These elements collectively contribute to the complex social contexts that underpin and influence governance structures. In the context of this project, a critical examination was undertaken to explore alternative methods of interaction and relationship formation that deviate from traditional hierarchical models.

A key issue at the root of the problem is the traditional approach to classroom management in which the teacher, by their authoritative position, dictates without due recourse to honest communication between themselves and the students. Such a paradigm was recognized as incompatible with the project’s objectives of promoting mutual respect and collaborative governance. Consequently, the reevaluation of the teacher’s role, essential for aligning with the participatory model of classroom management, initially recognized a compatible teacher role. This acknowledgment facilitated the development of a “smoother” version of the teacher’s role, which transcends the traditional dichotomy of “rigid enclosure” and “supple enclosure”.

Rigid enclosure involves the more direct forms of discipline that are clear and rigid. In contrast, supple enclosure involves the indirect forms of discipline, which are flexible and supportive of creating a supportive learning environment. Instead of seeking a balance between these forms of discipline, this approach goes beyond enclosures. The project specifically preferred a third approach, termed as the “smooth establishment of the commons” (Pechtelidis, 2020). This approach aims to cultivate a classroom atmosphere where discipline is maintained through understanding and mutual respect rather than coercion, emphasizing a community-based model of self-regulation and collaborative engagement over traditional disciplinary measures. This approach emphasizes the significance of adapting governance mechanisms to reflect the evolving dynamics of social contexts, thereby enabling more effective and inclusive forms of classroom management.

Peer dialogue was embraced not merely as a specific procedural tool but as a foundational ethos for all interactions within the classroom. This approach marked a significant departure from traditional pedagogical hierarchies, where the teacher’s authority is often unilaterally asserted. Instead, the teacher/researcher consciously eschewed perceptions of the pupils as “inferior” due to their younger age and social standing, recognizing them as responsible and equal participants in the educational process. This reconceptualization of the student-teacher dynamic emphasized mutual respect and the inherent value of each student’s perspective.

In practice, this meant that the teacher/researcher deliberately refrained from imposing his own viewpoints. There was a deliberate effort to cultivate an atmosphere where space was intentionally created for children to articulate their thoughts and ideas freely. This open-dialogue approach was applied universally, spanning a wide array of topics from interpersonal dynamics within the classroom to academic subjects under study. This approach called for a commitment to create a classroom climate such that dialogue was not just another tool for communication but it was a process for engaging learners in learning and solving problems with one another. This is propounded by people deeply engaged in the building of a society with an inherent capacity for sharing and solidarity among its members (Mustika et al., 2024). Through this, the project sought to empower students, encouraging them to engage actively and confidently in discussions, thereby enriching the learning experience for all involved.

The provided illustration juxtaposes two divergent models of power dynamics within educational settings (see Figure 2). On the left, it portrays the traditional pedagogical paradigm, where the teacher assumes a dominant, authoritative role, significantly limiting opportunities for student engagement in decision-making processes and the sharing of responsibilities. This model underlines a hierarchical structure that prioritizes teacher-directed instruction over student autonomy.

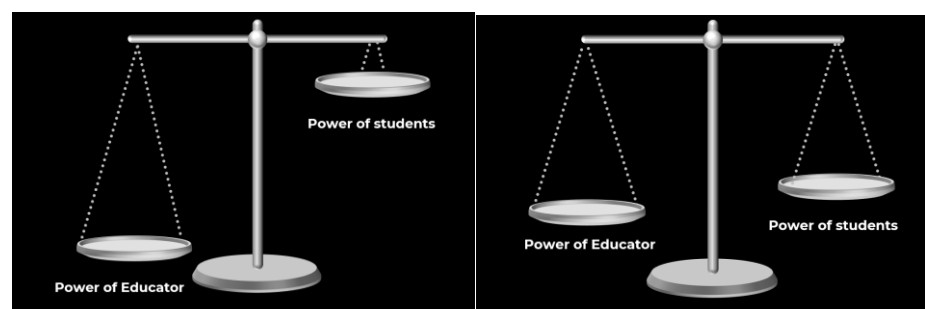


Figure 2. Power dynamics.

Conversely, the image on the right illustrates a more progressive, “smooth” form of pedagogical relationship. Here, the teacher and students engage on a more equal footing, albeit recognizing the inherent asymmetries that may exist. This approach allows for a substantial degree of student participation in the co-creation of the classroom environment and its governing norms. Such a model fosters a collaborative atmosphere, encouraging students to contribute actively to their learning experiences and to the collective management of the classroom, thereby cultivating a sense of shared responsibility and mutual respect.

4.3. Peer accountability

4.3.1. Theoretical landscapes of peer accountability

Peer accountability, as a concept, leverages the peer-to-peer (P2P) dynamic, fundamentally rooted in the unrestricted exchange of information across digital networks. However, its applicability extends beyond the digital world, offering a framework for structuring and conceptualizing social interactions. This paradigm not only serves as a mechanism for organizing social life but also embodies a form of political and social innovation. This is propounded by people deeply engaged in the building of a society with an inherent capacity for sharing and solidarity among its members. (Bauwens et al., 2019).

Foucault’s (2008) concept of disciplinary power is exemplified through the panoptic mechanism, an allegorical architectural model that facilitates the constant observation of individuals within a centralized structure. This model mirrors the dynamics of surveillance within educational institutions, where the omnipresence of oversight from educators, peers, and the learners’ own self-monitoring instigates a culture of self-regulation. Students, aware of the perpetual scrutiny, adapt their behaviors to align with established norms and expectations, reinforcing the profound influence of internalized surveillance on conforming to societal standards.

P2P model, at its core, embodies a relational dynamic where individuals (whether utilizing computers or not) engage in direct interactions without the necessity for authorization from hierarchical superiors, thereby enabling self-organization from a grassroots level. This process unfolds through collaborative efforts aimed at accomplishing shared objectives and collectively generating a common good, all while maintaining autonomy in decision-making processes. This logic represents a paradigm shift from the hierarchical dissemination of knowledge, characterized by panopticism, to a more distributed and equitable framework known as holoptism.

Within a panoptic model, knowledge flows from a singular, elevated point, enabling those at the apex to oversee and control the entire organizational, contextual, or classroom setting. In contrast, an holoptical, P2P model, democratizes this process, granting each participant a comprehensive view and shared responsibility, advancing a collaborative and inclusive environment (Bauwens et al., 2019).

It is essential to acknowledge that within the conventional framework of school life, the teacher’s authority to make decisions and exert control is legitimized, a dynamic that resonates with the concept of panopticism. Foucault identifies specific regularities that dictate the conditions under which particular discourses can be articulated and by whom (May, 2014). In scenarios where decisions are made outside the purview of designated authorities, such decisions are often not acknowledged. As May makes clear (2014), the scenario is analogous to “a spectator standing up in the courtroom to declare the accused guilty or not guilty”, underscoring the importance of recognized authority in decision-making processes. In conventional classroom settings, the predominant model positions the teacher as the primary repository of knowledge and the sole decision-maker.

Contrarily, within a framework of holoptism, participants are encouraged to actively express their views, contribute to the dissemination of learning, and engage responsibly in decision-making processes. For the scope of this investigation, the integration of P2P dynamics into the educational environment is designated as “peer accountability”.

A model was evaluated where children possess horizontal knowledge, enabling mutual assistance and the responsibility to oversee decisions, either in their execution or when intervention is needed without teacher mediation. Unlike other pedagogical practices mentioned in literature, “peer accountability” emerged as a new term, devised to encapsulate a method where children learn responsibility and self-regulation, showcasing a unique approach to learning dynamics within peer groups.

To illustrate, peer dialogue, assemblies, and the concept of peer accountability

collectively accentuate the essence of mutual communication and joint decision-making in educational frameworks. Assemblies are structured processes with a predefined sequence for conducting them, whereas peer dialogue is an ongoing, dynamic interaction that can occur throughout the day. This distinction illuminates the formal versus informal nature of these communication forms within educational contexts, highlighting assemblies as planned events with specific objectives and peer dialogue as continuous, informal exchanges that promote mutual understanding among students.

4.2.2. *Peer accountability: from theory to praxis*

The implementation of holoptism, a concept integral to the co-management of the classroom, represents a strategic shift towards peer accountability. A participatory model for this approach makes the children take over their supervision and regulation, thus being self-regulatory. Holoptism extends beyond the mere transfer of knowledge, embedding itself deeply within the governance processes through the strategic assignment of roles and responsibilities. Such an arrangement not only democratizes the classroom environment but also cultivates a sense of ownership and accountability among the students.

From the inception of the first assembly, the principles of holoptism were actively integrated into the daily operations of the classroom, culminating in the collective decision to incorporate this model into everyday practice. This decision reflects the students' commitment to a self-governed, collaborative approach to both learning and classroom management. From a systematic application of holoptism within a school year, it would appear that the holoptic organization is a viable one in developing an inclusive, self-regulative educational environment where students are in charge of leadership and decision-making.

Within the framework of implementing holoptism and fostering a self-regulated classroom environment, several unique roles were introduced, each aimed at addressing specific aspects of classroom management and peer accountability (Figure 3):

Role	Description
<i>Masker</i>	Assigned the role of ensuring that classmates adhered to health protocols by wearing face masks, a necessity in the context of the coronavirus pandemic.
<i>Quiet Officer</i>	Tasked with maintaining a serene and conducive learning environment by managing noise levels.
<i>Court</i>	Comprising a trio of students, this entity was responsible for deliberating on and administering appropriate responses to instances where respect towards others was compromised.

Figure 3. Peer accountability and roles.

The allocation of these roles was determined through a democratic process of nomination and voting conducted at the conclusion of each school day, ensuring that different children had the opportunity to embody these roles, thus promoting inclusivity and a shared sense of responsibility.

Over time, the dynamic nature of these roles allowed for their evolution through practical application and ongoing dialogue within the assemblies. Notably, the “court” underwent a major shift from its initial punitive function to becoming a “court of immunity”, reflecting a shift towards a more restorative approach. This evolution was driven by the children’s collective decision-making, illustrating their capacity to reassess and redefine the governance structures governing their interactions.

Ultimately, the multiplicity of roles was consolidated into a singular position known as the “teacher’s aide”, indicating a streamlining of responsibilities. This consolidation likely resulted from reflective discussions and the practical experiences gained through the year, highlighting the fluidity and adaptability inherent in a participatory, student-led governance model. One of the outcomes of this kind of education is that it encourages the critical consciousness of the student regarding his roles and identity as an individual within the institution, in the community, and the larger society.

5. Discussion

This study endeavors to illuminate pivotal pedagogical practices inherent to the



commons, which pertain to alternative methodologies for the utilization, negotiation, and dissemination of knowledge. These practices can operate synergistically, challenging orthodox thought, epistemological dogmatism, standardized learning paradigms, the notion of the omniscient educator, the conceptualization of the learner as a passive recipient, and the hegemony of conventional educational frameworks.

The adaptation of this logic to public schooling is not merely perceived as a transition from one educational model to another, but rather as a transformation in the dynamics and structure of power relations inherent in the hybrid institution of schooling (Pechtelidis & Kioupiolis, 2020). Consequently, the interaction between teachers and students within the classroom evolves into a discourse characterized by cooperation, sharing, and association, representing a significant departure from traditional educational practices (Kemmis et al., 2014; Pechtelidis, 2020).

In exploring the potential for a hybrid form of Educational commons within public education (Pantazidis, 2024; Pechtelidis et al., 2023), the researcher did not primarily concern themselves with the feasibility of transforming a classroom into a common. Such a change, which would reconceptualize the public school or classroom entirely as a common, was deemed inappropriate. Instead, it was acknowledged that reshaping the existing educational modalities would be a complex task, given that school practices are inherently linked to the collective societal needs they serve. As Emile Durkheim has articulated, these educational systems and practices have evolved through contributions from successive generations, reflecting a cumulative legacy of social principles and practices (see Malik & Malik, 2022).

At the micro-level of school experience, it is acknowledged that there are significant limitations and obstacles to the processes of substantial educational reform. Schools often exhibit resistance to change, a tendency reinforced by entrenched routines and traditions. Altering long-standing practices and beliefs presents considerable challenges (Woods et al., 2019). Moreover, the traditional model of public education typically features a fairly vertical structure, which limits the scope for autonomy and flexibility (Hope, 2018). This issue is compounded by the hierarchical decision-making processes within school units and the education administration, further exacerbated by the special conditions imposed by the Covid-19 pandemic.

Nevertheless, schooling should embody a liberatory process, promoting self-knowledge and fostering a quest for truth, knowledge, and creativity (Standing, 2020). However, a pervasive pessimistic logic exists that posits institutional reform as the sole avenue for achieving a liberatory education. This viewpoint holds that as long as schooling functions as a structure of oppression, no introduced practice will yield substantial liberation (Illich, 1971). Nonetheless, it is crucial not to await “a sudden revolutionary rupture” as a signal to transform education. Instead, transitional practices should commence, fostering hope, ideas, and new learning, and unlocking the imagination for potential shifts (Fielding & Moss, 2011, p. 149). Through Deleuze and Guattari’s concept of micro-politics, it is possible to leverage the dynamics arising from structural anomalies—such as gaps, obstacles, contradictions, and formal opportunities—within educational institutions for the benefit of children (see Pechtelidis, 2020). Consequently, a central focus of this initiative is identifying strategies to create fissures within the rigid frameworks of official neoliberal and neoconservative educational policies.

Learning

Peer learning

how we promote children’s
self-organization in learning

Co-creation of knowledge

how we collectively create knowledge

Governance

Assemblies

how we create an environment
where children make decisions

Peer dialogue

how we communicate with children
on an equal footing

Peer accountability

how we enable responsibility &
commitment

Figure 4. Commons-based pedagogical practices in a nutshell.

Implementing bold interventions at the classroom level was challenging, yet not insurmountable. By altering pedagogical practices, there is an attempt to challenge entrenched “truths” that dominate traditional views on learning, curriculum, timetables, and the roles of teachers and students. The daily interventions focused more on integrating elements of a specific logic into an established framework rather than completely reconstructing that framework. Consequently, there was an effort to modify practices, perceptions, and the relationships between children and teachers from within, adapting elements of the “commons” to the immediate realities of the educational process.

Commons-based pedagogical practices encapsulating political and pedagogical merits, significantly enhance various dimensions of communal school life engagement. Moreover, these practices cultivate a democratic ethos, empowering children to actively contribute to the immediate shaping of their educational context—the “here and now”. These practices (Figure 4) are not just foundational in principle; they also function as dynamic forces reshaping educational environments to become more welcoming, fair, and cooperative.

6. Conclusions

This paper presents a new development in the second wave of opening Educational Commons to pedagogical science and the institutional school experience. Especially, this paper posits that the commons concept can be effectively applied through innovative pedagogical practices, arguing for a progressive approach in which educational spaces transcend traditional boundaries.

Indeed, the implementation process encountered substantial obstacles attributed to the existing material disciplinary frameworks, which significantly constrained opportunities for radical transformations. By reframing educational theory with the “commons” concept, the opportunity is seized to reimagine education, envisioning it as a shared resource and opening up new avenues for engagement by teachers and students in the educational landscape. Micro-political actions enable the construction of new views on the learning space, facilitate the co-creation of knowledge, and promote a more democratic day-to-day experience within schools.

These new modes of self-governing can operate as an attempt to promote new forms of subjectivity in the field of education in relation to the current critical, political, and social context (Pechtelidis 2020). Considerable dedication and effort were essential to enable learners to develop the capacity for self-coordination and mutual support, thereby diminishing their reliance on educators characterized by omniscience, explicatory dominance, and authoritarianism. This shift necessitated a reevaluation of traditional pedagogical roles, advocating for a learning environment where participants could engage more autonomously and collaboratively.

Commons-based pedagogical practices interrogate and challenge the dominant paradigms of adultism, prompting students to critically assess and reconceptualize their roles from passive beneficiaries to active contributors within the educational landscape. Such a critical reassessment is instrumental in empowering students to acknowledge, assert, and embrace their rights, duties, and capacities as emergent citizens. This represents a framework that teachers could employ to foster values of reciprocity, solidarity, and co-decision, inherent to the “commons”. These practices also serve as foundational pillars for developing a “Pedagogy of Educational commons”, a radical teaching methodology designed to infuse the logic of the ‘commons’ for democracy into public schools.

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