FROM APATHY TO ACTION: REFRAMING SUSTAINABILITY AT DANISH FOLK HIGH SCHOOLS

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SUPERVISOR   Signe Pedersen

Associate Professor

Department of Planning

COLLABORATION   Grundtvigs Højskole Frederiksborg

STUDENT   Laura Leo Tryg Grue 20194537

PREFACE

Journal: European Educational Research Journal

This master thesis is aimed to be published in the journal: *European Educational Research Journal*. The journal publishes articles focusing on how the European context shapes educational research (European Educational Research Association, n.d.). This research article contributes to the field as it critically investigates how Danish folk high schools and their traditions can encompass sustainability initiatives to support the democratic *Bildung* of the students and support their competencies to act in a complex future. Education has gained an increased focus as a means to address sustainability and sustainable development. Thus, this article is relevant as it brings a perspective from a European context that can inspire other educational systems. This article will bring an alternative understanding of education, focusing on environmental and sustainability education and how participatory design strategies can enhance this focus.

The article will align with the requirements for an article published in this journal. This includes, for an original article to consist of 7,000-8,000 words (10,000 words if justified), using SAGE Harvard reference style and aims to *"understand and address the production of education problems and solutions, discourses, paradigms, practices and challenges, broadly understood."* (European Educational Research Association, n.d.)

Contribution to Sustainable Design Engineering

This thesis significantly contributes to Sustainable Design Engineering (SDE) as I, throughout my eight-month engagement with Grundtvigs Højskole, have demonstrated the critical importance of implementing sustainability within education and navigated changes to support this implementation. As the SDE program has equipped me with knowledge of design approaches, including Participatory design, organisational culture and change, and socio-technical systems, I have managed to navigate in a real-life context, applying methods and theories to investigate how sustainability can be further implemented within a Danish educational institution. It is by applying a design approach and emphasising the need to involve the actors within the field that I have managed to propose a strategy for Danish folk high schools that seeks to increase their focus on sustainability through a participatory design process.

During this research, I have strengthened my abilities as an SDE and generated valuable insights into applying design approaches to enhance sustainability within the educational system. My engagement in this project has allowed me to refine my skills in integrating sustainability principles. Additionally, this research has contributed to a deeper understanding of how design methodologies can be practically implemented to foster sustainable transitions in educational institutions.

Mapping of activities during this Master Thesis

To offer a comprehensive visual overview of the activities undertaken during my master thesis, I have detailed the purpose, objects, participants, dates, and the format (physical or online) of each activity (see Table 1). Even those activities not elaborated upon in the research article have played a significant role in shaping the overall outcomes and insights of the project. By documenting these aspects, I aim to convey the depth and breadth of the research process, illustrating how each activity contributed to the understanding and implementation of sustainable design approaches in the field.

Activity	Exercise/objects	Participant	Name	School	Date	Physical/ online
Morning Assemble (about my work at the school and sustainability in general)	Powerpoint presentation for the students	All students		Grundtvigs Højskole	24.1.24	P
Initial meeting	Brainstorm where each participant writes down what they wish to address in relation to sustainability at the school	Grøntvigs	Ellen, Rasmus, Asger, André, Celina, Amanda, Alma, Oline	Grundtvigs Højskole	24.1.24	P
Negotiating the coming climate week	Feedback from last semesters Climate Week	GPU	Simon (head chef), Ditte (Vice principal), Sarah (Teacher), and Emil (Teacher)	Grundtvigs Højskole	25.1.24	P
Negotiating the frame for the Climate Week		Grøntvigs	Rasmus, André, Celina, Alma, and Oline	Grundtvigs Højskole	6.2.24	P

Planning the Climate week	Brainstorm on initiatives for Climate Week to present to staff as inspiration	GPU	Nicklas (groundsman), Simon (head chef), Ditte (Vice principal), Sarah (Teacher), and Emil (Teacher)	Grundtvigs Højskole	19.2.24	P
Planning the Climate week	Brainstorm on initiatives for Climate Week to present to students as inspiration	Grøntvigs	Ellen, Rasmus, André, Oline, Celina and Asger	Grundtvigs Højskole	19.2.24	P
Presenting the Climate Week and initiatives for inspiration	Presentation at staff meeting	Staff		Grundtvigs Højskole	20.2.24	P
Climate week	A shared board for students and staff to add their initiatives to have it visible for all	Students, staff and management		Grundtvigs Højskole	Week 9	P
Repair Café	Repair café for students to learn how to repair their clothes to reduce waste	Students		Grundtvigs Højskole	28.2.24	P
Presentation and evaluation of best students initiative during the climate week	The different groups of students presents their initiatives at the best initiatives is judged by Grøntvigs	Grøntvigs and students		Grundtvigs Højskole	1.3.24	P
Meeting with Brenderup Højskole	Meeting hosted through a phone call - semi-structured interview	Principal A	Birgitte (Principal since 2022)	Brenderup Højskole	8.3.24	O
Negotiation with Rødding Højskole	*Four Boxes Board* and *Prioritisation Board* presented through Miro, hosted in Teams	Teacher A	Kasper (teacher since 2017)	Rødding Højskole	11.3.24	O
Negotiation with Roskilde Festival Højskole	*Four Boxes Board* and *Prioritisation Board*	Principal B	Hans Christian (principal since 2020)	Roskilde Festival Højskole (RfH)	13.3.24	P
Negotiation and participation in 'Jordforbindelse' course at Egmont Højskolen	*Four Boxes Board* and *Prioritisation Board*	Teacher B and Teacher C	Bente (teacher since 1996) and Maria (teacher since 2011)	Egmont Højskolen	14.3.24	P
Negotiation with Kalø Højskole	*Four Boxes Board* and *Prioritisation Board* presented through Miro, hosted in Teams	Teacher D	Helene (teacher since 2021)	Kalø Højskole	20.3.24	O
Negotiation with Vestjyllands Højskole	*Four Boxes Board* and *Prioritisation Board* presented through Miro, hosted in Teams	Teacher E	Arendse (teacher since 2022)	Vestjyllands Højskole	23.3.24	O

Negotiation with Den Rytmiske Højskole	*Four Boxes Board* and *Prioritisation Board* presented through Miro, hosted in Teams	Principal C	Lars (principal since 2014)	Den Rytmiske Højskole (DRH)	2.4.24	O
Negotiation of focus areas and further work	Sustainability indicators from FFD and Focus areas created by head chef, to negotiate where we are and what we want to focus on	GPU	Nicklas (groundsman), Simon (head chef), Ditte (Vice principal), Sarah (Teacher), and Emil (Teacher)	Grundtvigs Højskole	5.4.24	P
Negotiation: What is concerning the climate-conscious student?	*Prioritisation Board*	Grøntvigs	Ellen (Student A), Oline (Student B) Rasmus (Student C), and Asger (Student D)	Grundtvigs Højskole	10.4.24	P
Negotiation and particpation in 'Jorden Kalder' course at Krogerup Højskole	*Four Boxes Board* and *Prioritisation Board*	Teacher F	Anna (teacher since 2021)	Krogerup Højskole	12.4.24	P
Negotiation: What is concerning the average student?	*Prioritisation Board*	Random group of students	Mathilde (Student E), Kaya (Student F), Agnes (Student G), Sara (Student H), and, Ida (Student I)	Grundtvigs Højskole	13.4.24	P
Negotiation with management at Grundtvigs Højskole	*Four Boxes Board* and *Prioritisation Board* presented through Miro, hosted in Teams	Management	Jakob (Principal since 2006) and Ditte (Vice principal since 2018)	Grundtvigs Højskole	23.4.24	O
Negotiation: What is the plan for the future?	*What/How Board* and *Roadmap Board*	GPU	Nicklas (groundsman), Ditte (Vice principal), Sarah (Teacher), and Emil (Teacher)	Grundtvigs Højskole	17.5.24	P

Table 1 Mapping of activities during my research

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Laura Leo Tryg Grue

Master Student at Department of Planning, Aalborg University, Copenhagen

ABSTRACT

Danish folk high schools have a strong tradition of embracing an experimental and explorative approach to education. As sustainability becomes an increasingly pressing concern, traditional evidence-based and progress-oriented teaching methods are being challenged. *Education for Sustainability* (ESD) has been presented to integrate sustainability into the educational system, but it faces criticism for prioritising behavioural changes and consensus over participatory processes that highlight dilemmas and dissensus. Through a case study conducted at Grundtvigs Højskole, this research employs a participatory design approach to explore the diverse and potentially conflicting concerns related to the implementation of sustainability at Danish folk high schools. Utilising the analytical framework of *Actor-Network Theory (ANT)* and *Arena Theory*, the research underscores the importance of engaging the involved actors in the process of change. This research article provides a participatory strategy to effectively implement sustainability at Danish folk high schools. Furthermore, this research provides critical insights and practical methodologies that can be adapted by other educational institutions, aiming to empower future generations with the skills and knowledge to navigate and address the complexities and uncertainties of the future.

Keywords:

Participatory Design, Education for Sustainability, Folk High Schools, Democracy, Bildung

INTRODUCTION

Our complex future is calling for active democratic citizens who are ready to participate in the transformation of our current society into a sustainable one. It is no longer sufficient to simply inform people about the problems we face; we need to equip future generations with the tools and competencies to act. Since the 90s, education has gained increased attention as a necessary means for addressing sustainability challenges and promoting sustainable development (Stevenson, 2007). However, literature shows that sustainability has not yet been fully anchored within the education system (Rathje, 2023; Sterling, 2004; Stevenson, 2007; Torsdottir et al., 2024). According to Sterling (2004), the educational system and its institutions must be viewed and investigated as complex systems to implement sustainability effectively. The goal should not be to add sustainability as an extra element to current structures; rather, it should be seen as a transformative change in our educational culture and the practices within (Sterling, 2004).

Danish folk high schools are a unique part of the Danish educational system, existing for 180 years as a free pedagogical institution (Lysgaard, 2020). Unlike most parts of the Danish educational system, folk high schools dissociate from the performance culture by creating a space where grades and examinations do not exist. At the folk high schools, the format is loose, fostering an experimental approach and exploration of alternative ways of doing. This flexibility enables teachers to design their own courses and specialise in niche interests – as long as they support the three statutory cornerstones of the folk high schools – *Life Enlightenment*, *People's Enlightenment*, and *Democratic Bildung*[1] (Retsinformation, 2019).

Since their inception, folk high schools have been important institutions in education and society to support the youth's critical thinking and engagement in societal dilemmas (Lysgaard, 2020). Following the tendencies in both the local and global society, folk high schools are inevitably confronted with topics such as climate change, youth activism, sustainability issues, etc. This has sparked increased interest in emphasising sustainability at several folk high schools, both among students, teachers and management (Lysgaard, 2020).

However, management at *Grundtvigs Højskole* is clearly concerned: the youth no longer actively engage in handling the sustainability issues we are currently facing and will be

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[1] Throughout this article the German term *Bildung* will appear as no English translation encompass this notion – the term will be further elaborated in the literature review.

facing in the future. During the last couple of years, *Grundtvigs Højskole* has experienced a decrease in students' engagement in the sustainability agenda. This has raised the concern among management that the students will resist sustainability initiatives initiated by the school. However, a survey conducted by the *Politics* students at the school shows that '*Climate and environment*' is a top priority for the students when voting[2]. Thus, while the survey indicates that sustainability is politically a high priority for the students, the noticeable decline in engagement, experienced at the school suggests a discrepancy that needs further exploration.

This research aims to introduce participatory design as a concrete tool for folk high schools to implement sustainability, addressing a gap currently present in the literature within this field. To explore how the folk high schools can enhance sustainability and support a sustainable transition in society, by empowering the youth to become active democratic citizen, this article addresses the research question: *How can Participatory design strategies effectively foster sustainability becoming a shared matter of concern at Danish Folk High Schools, to support the youths' competences to navigate a complex future?*

The research design (see Figure 1) shows how Actor Network Theory (ANT), Arena Theory, Intermediary Objects, Participatory Design and Staging Negotiation Spaces (SNS) have acted as the theoretical backbone of this study. The empirical findings and research of relevant literature have informed a solution that seeks to provide actionable tools for folk high schools to ensure that sustainability becomes a shared matter of concern through a participatory design process.

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[2] The students were asked *"Which of the following topics do you believe would be the most important for you, if you were going to vote at the general election in three weeks? (you are allowed to choose 2)"*. Out of 108 respondents 75 chose *Climate and Environment*
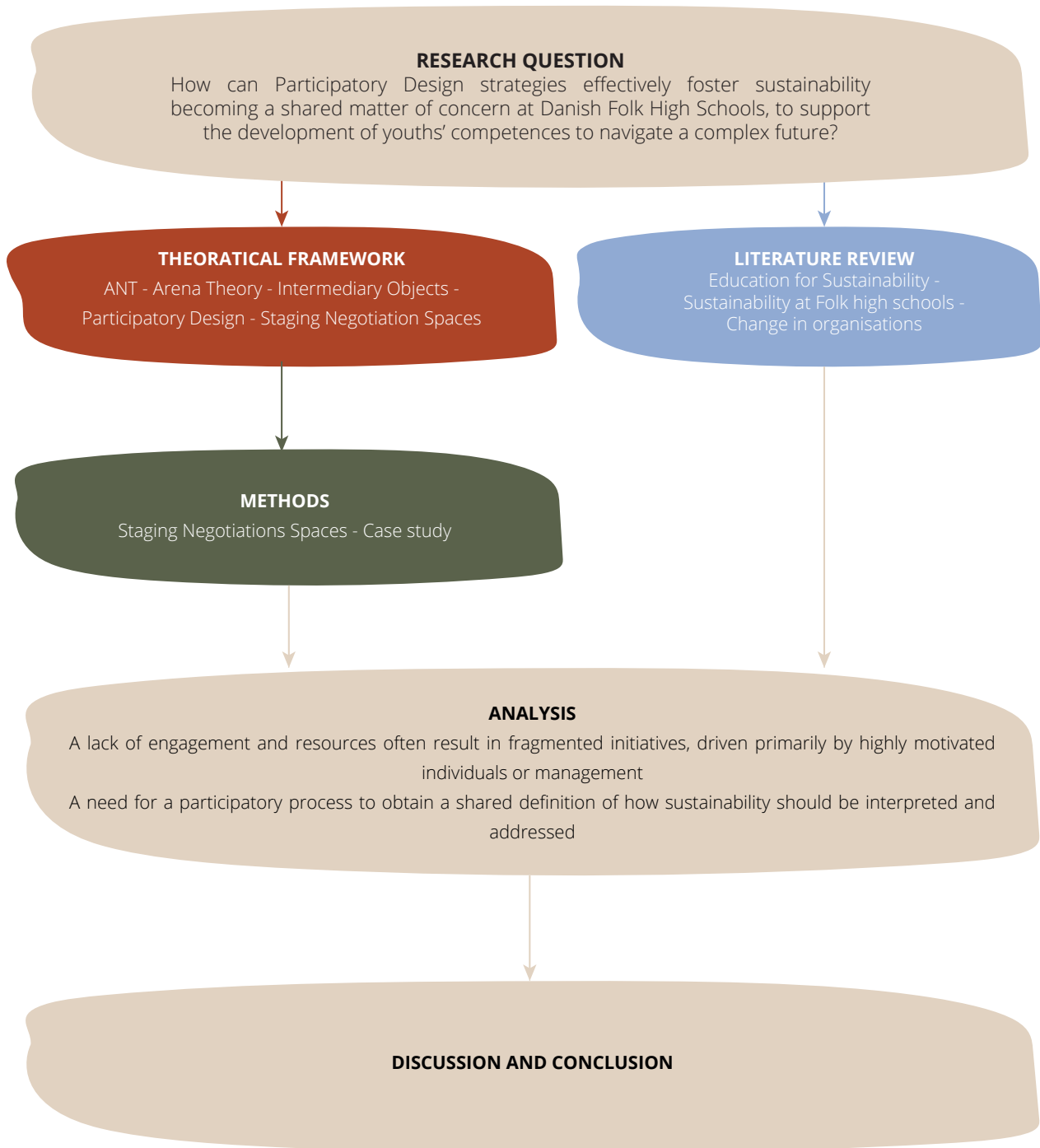
RESEARCH QUESTION

How can Participatory Design strategies effectively foster sustainability becoming a shared matter of concern at Danish Folk High Schools, to support the development of youths' competences to navigate a complex future?

THEORATICAL FRAMEWORK

ANT - Arena Theory - Intermediary Objects - Participatory Design - Staging Negotiation Spaces

LITERATURE REVIEW

Education for Sustainability - Sustainability at Folk high schools - Change in organisations

METHODS

Staging Negotiations Spaces - Case study

ANALYSIS

A lack of engagement and resources often result in fragmented initiatives, driven primarily by highly motivated individuals or management

A need for a participatory process to obtain a shared definition of how sustainability should be interpreted and addressed

DISCUSSION AND CONCLUSION

Figure 1 Research design that visualise the process of this research

EMPOWERING SUSTAINABILITY THROUGH EDUCATION

Education for Sustainability

Education has gained increased attention in scholarship as a means to address global challenges in relation to climate change. Concepts such as *Education for Sustainability* (ESD) and *Environmental and Sustainability Education* (ESE) were first presented three decades ago to actively tackle sustainability issues (United Nations, 1992). More recently, researchers have criticised the dominant discourse within ESD that tends to focus on behavioural change and consensual actions as opposed to participatory processes that allow dissensus and dilemmas (Block et al., 2018; Læssøe, 2010; Van Poeck and Vandenabeele, 2014; Wildemeersch, 2014).

According to Wals (2010), teaching within sustainability is complex as there is no universal truth – realities shift continuously and depend on localities. Thus, the traditional way of teaching, where the teachers teach and the students are being taught, cannot encompass the complex problems related to sustainability (Wals, 2010). Willbergh (2015) supports this perception and further argues that education should not seek to predict the future and provide specific competencies to deal with predicted issues. Block et al. (2018) argues that sustainability problems can be defined as *wicked problems*, which can only be properly *"[…] understood in a context of complexity, uncertainty and diversity of values."* (p. 1425).

In 2010, Bormann and Michelsen (2010) sought to develop indicators to monitor the implementation of ESD. However, they concluded that such indicators should be based on an iterative and participatory process and cannot solely be developed by the researcher. Læssøe (2010) further argues that participatory processes help empower people educationally to participate in democratic processes. This is further supported by several scholars who point to concepts such as participation, co-creation, action competence, and democratic *Bildung* as means to tackle the complexities within ESD (Block et al., 2018; Lysgaard, 2020; Van Poeck & Vandenabeele, 2014; Wildemeersch et al., 2023).

Whole School: An approach to education for sustainability

An approach that actively seeks to tackle the complexities within the field of ESD is the *Whole School Approach* (WSA). WSA promotes a systemic approach that requires the involvement of all relevant actors at the school to embed sustainability (Torsdottir et al., 2024). According to Rathje (2023), the school's vision should be created and continuously negotiated in collaboration with the school's actors. During a case study,

Rathje (2023) investigated some of the barriers that exist when schools seek to implement WSA. One significant barrier is that the actors within the school often lack the time and space to foster internal collaborations, which can result in a vague and unclear vision that is not widely understood or accepted by all of the school's actors (Rathje, 2023). The process of establishing a shared vision often reveals differing concerns, experiences, and values among actors, which may require additional resources (Rathje, 2023). Torsdottir et Al. (2024) emphasise the importance of student participation when working with WSA for ESD. Schools should not only let students influence the teaching but also the school's overall approach to sustainability. They stress that students can act as catalysts for change if they are provided with the opportunity (Torsdottir et al., 2024).

Encourage students to act

Almost three decades ago, Jensen and Schnack (1997) presented an action approach to ESD that encourages students to act on a personal and societal level. They argued that environmental problems are not only a matter of reducing consumption and other quantitative changes but also a matter of qualitative changes, which requires that the educational system fosters competencies among the students, making them able to envision alternatives to the mainstream ways of development and act according to these (Jensen and Schnack, 1997). They stress the importance of an approach that ensures the students acquire the courage to act as active citizens in democratic processes. We are all acting based on earlier experiences and routines; thus, new experiences can have a disruptive effect on our taken-for-granted way of doing (Jensen and Schnack, 1997; Wildemeersch et al., 2023).

Jensen and Schnack (1997) state that for an activity to be defined as an action, it must involve solving a problem and include student participation in the decision-making process. According to them, democracy and the development of action competences cannot be separated, as education for democracy is also about educating to be an active participant (Jensen and Schnack, 1997), an educational ideal that the Danish folk high schools are obliged to encompass through their regulative concepts: *Life enlightenment*, *People's enlightenment* and *Democratic Bildung* (Lysgaard, 2020).

Why folk high schools have the power to support a societal change

Different scholars introduce the concept of *Bildung* as central to addressing the shift needed in the current educational system that is often evidence-based and progress-oriented (Biesta, 2002; Lange, 2016; Lysgaard, 2020; Willbergh, 2015). Ryen and Jøsok

(2023) present the perspective that knowledge cannot be transferred from teacher to student to prepare the student to perform certain tasks. Rather, knowledge should lead to the development of students' *Bildung,* which can lead them to a deeper understanding and critical interpretation of the world (Ryen and Jøsok, 2023). According to Biesta (2002) *Bildung* is *"[...] the cultivation of the inner life, that is, of the human soul, the human mind and the human person; or, to be more precise, the person's humanity."* (p. 378). Thus, the concept of *Bildung* does not refer to education and adaption in relation to the existing societal order (Biesta, 2002). Applying the concept of *Bildung* in an educational context supports the youth's ability to take responsibility for our future society. According to Lysgaard (2020) it is here the pedagogy of the folk high schools come in handy as it is not restricted by the focus on progression and results. He suggests that it is part of the schools' key tasks to develop the student's understanding of societal dilemmas, theoretically and practically (Lysgaard, 2020).

As Lysgaard (2020) states, folk high schools can insist on handling and engaging global and local societal problems that should not be entrusted with political tendencies and agendas. In the early stages of the history of folk high schools, they demonstrated their capacity to instigate action and engage with society. Lysgaard (2020) provides an example from 1891 when Poul La Cour collaborated with students at *Askov Højskole* to develop the first electricity-driven windmill. This collaboration laid the foundation for the subsequent growth of the windmill industry in Denmark (Wistoft and Winther-Jensen, 2024). Again, in the '60s and 70s, folk high schools proved their relevance as their open format allowed an experimental approach that challenged the dominant tendencies in society in relation to industrial development, as a new insight into the relationship between nature and industry arose (Lund, 2020; Lysgaard, 2020; Olsen, 2018).

According to Komischke-Konnerup (2015), folk high schools must never be placed outside society in their political and pedagogical duty. The free frames at the folk high schools should not act as freedom from society but rather obligate the schools to support a transformation of society. Lysgaard (2020) suggests that the pedagogy of folk high schools can support the complex and uncertain problems related to sustainability as the pedagogy brings an experimental approach that can facilitate negotiations of what sustainable development should contain (Lysgaard, 2020). In Lysgaard's (2020) opinion, a part of being a well-educated human being is accepting the dilemmas as they are important when seeking to solve sustainability issues. For Danish folk high schools to address and support a sustainable transformation in society, their organisational

culture needs to allow changes to continuously experiment with alternatives to the existing structures in society and insist on handling the dilemmas that are inevitable when engaging with sustainability (Lange, 2016). Thus, it is interesting for this research to investigate how organisational change occurs and can be anchored.

Facilitate a change in organisations to anchor sustainability

Traditional approaches to organisational change have been criticised in literature for their emphasis on achieving and maintaining stability (Alvesson, 2002; Buchanan et al., 2005; Kamp, 2000; Ropo et al., 1997; Tsoukas and Chia, 2002). According to Tsoukas and Chia (2002), the focus on stability has caused change to be viewed as something extraordinary rather than something natural caused by the dynamic changes in society. This is further elaborated by Weick and Quinn (1999), who differentiate organisational change as either episodic, discontinuous, and irregular or continuous and evolving. In this study, it seems relevant to adapt to the persuasion that change should be studied as something ongoing and evolving.

To create a change in an organisation, Alvesson (2002) introduces the concept of organisational culture. He suggests that we must dive deeper than behaviours and instead investigate how people relate to objective matters. Thus, management should not seek to always do things objectively right, as it is how people within the organisation interpret the implemented actions and initiatives (Alvesson, 2002). Changes in an organisation are not always seen as a positive act as they can easily lead to conflicts, as different interpretations of the actions may occur (Alvesson, 2002). This underlines the importance of active participation from actors within an organisation in change processes.

Participatory design as an approach to achieve change in organisations

Several scholars point to applying design to handle conflicts and different interpretations. Especially the concept of *Participatory Design* (PD) has gained an increased focus in literature (Brodersen and Pedersen, 2019; Iversen and Dindler, 2014; Kleinsmann and Valkenburg, 2008; Pedersen et al., 2020; Smith and Iversen, 2018). More recently, a new approach to PD has emerged in literature (Iversen and Dindler, 2014; Smith and Iversen, 2018). This approach presents a holistic and long-term perspective to participatory design grounded in a wider context to create sustaining change (Smith and Iversen, 2018).

According to Iversen and Dindler (2014), for participatory design projects to be sustainable, they must be sustained and reach beyond isolated cases. The role of the

researcher shifts from focusing on facilitating mutual learning to also ensuring that participants in a PD project experience long-term results, which requires that the researcher ensure that initiatives are sustained after the end of the project (Iversen and Dindler, 2014). Smith and Iversen (2018) claim that to achieve this, goals and concerns in the context of the PD projects must be defined. Pedersen (2020) introduced *Staging Negotiation Spaces* (SNS) as a framework that offers actionable tools to navigate different concerns by staging and facilitating negotiation spaces. According to Pedersen (2020), the role of the researcher must be expanded to stage and facilitate negotiation spaces to contribute to a PD process. The researcher's facilitating is not merely procedural; their interpretive role is central, as their perspectives and decisions shape the negotiations' framing (Pedersen, 2020).

THEORETICAL FRAMEWORK

Actors and the configuration of networks

To understand the connections and power relations between the human and non-human actors within the field and understand these negotiation spaces, Actor Network Theory (ANT) provides a valuable analytical framework and vocabulary (Storni, 2015). Throughout this research, adopting the perspective of ANT has helped to identify the relevant human and non-human actors and their relations and actions. Another valuable aspect of ANT is *translation* and mobilisation of the right spokespersons (Callon, 1986). As actors seek to maintain a certain agenda or concern, a translation occurs, as they exclude and include specific actors to maintain their agenda (Callon, 1986). Thus, a translation results from negotiations between different actors and different Matters of Concern (MoC), which further results in the configuration of a flexible network (Brodersen and Pedersen, 2019). To ensure that this project will continue after my departure, it is essential to mobilise the right spokespersons who represent the sustainability agenda and continuously negotiate and translate other actors and, thus, strengthen the network.

Navigating different Matters of Concern

To analytically support the change perspective of this research, Arena Theory has provided a framework that, unlike ANT, which focuses on excluding and including actors with different agendas or concerns, allows actors with different and conflicting MoCs to coexist in the same *space*. This *space* is defined as *"[...] a space that hold together the*

settings and relations that comprise the context for [...] process development" (Jørgensen & Sørensen, 1999, p. 410)*.* In Arena Theory, the notion of actor-worlds is used to describe relations. It covers not only the actor-network but also a set of translations and narratives that seek to hold together this actor-network (Jørgensen and Sørensen, 1999). During this research, the navigation of competing MoCs among actors has been crucial as these are shaping the solution that solves the cure of the problem at Danish folk high schools seeking to implement sustainability. Thus, illustrating the arena for this research has visualised the complexities and clarified where I should enter and facilitate negotiations and initiate actions to achieve translations.

Applying objects to access knowledge

When facilitating negotiations, introducing objects is valuable for creating tangible representations of actors' concerns that thus can be translated (Yoshinaka and Clausen, 2020). *Intermediary Objects* is an analytical tool that can help investigate how different networks are configured. By introducing objects, the researcher gains access to the actors as they engage in action (Vinck, 2012). This can help clarify relations and practices that can be difficult to identify by focusing on the actors alone (Vinck, 2012). For a design object to act as an intermediary object, it should have three main features: a) *mediation*, b) *transformation* or *translation*, and c) *representation* (Boujut and Blanco, 2003). According to Pedersen (2020), *Intermediary objects* can represent concerns, transform both objects and actors and create temporary alignments during negotiation. Throughout this research, objects have been designed to act as *Intermediary objects* at different negotiations to which different actors were invited. As they have circulated and been transformed based on different actors' different inscriptions, they facilitated deeper insights and a more comprehensive understanding of the network.

Design as a means to get actors to participate

As ANT, Arena Theory, and Intermediary Objects have served as the analytical framework for this research, the concept of Participatory Design (PD) has provided strategies and objects to effectively engage and involve the actors who normally would risk being marginalised. A core value for PD is democracy, and thus, the approach aims to confront the existing power structures that are often based on hierarchy by distributing control to other actors and emphasising that everybody can participate in design (Sanders and Stappers, 2008). This is done to ensure that a solution is shaped from different perspectives and that it addresses the actual problems (Pedersen and Brodersen, 2020). Thus, PD does not aim to design a solution that solely pleases the

users, rather this approach helps users see possibilities and alternatives and what it will take to reach a specific vision (Bødker et al., 2017). This approach has consistently served as a reminder to actively involve relevant actors at every stage of the research process.

Staging Negotiations Spaces

To ensure the involvement of relevant actors and the navigation of their different MoCs, the framework *Staging Negotiation Spaces* (SNS), presented by Pedersen (2020), has been applied. She suggests that the researcher facilitates negotiations around actors' different MoCs, which involves going through different iterative steps: *staging*, *negotiation* and *reframing* (Pedersen, 2020). Staging refers to the moves the researcher performs before the negotiation is facilitated. The researcher frames the negotiation by deciding who should be invited to participate (Pedersen, 2020). This often requires the circulation of different intermediary objects, which can facilitate translations and reframings of the project guided by the inscriptions within these objects (Pedersen, 2020). The researcher should avoid 'running the show' and, more importantly, act agile as circumstances might change during negotiations. However, the researcher's interpretations are crucial in framing the negotiations (Pedersen, 2020). In conducting this research, the framework was applied to facilitate negotiations with the relevant actors within and outside *Grundtvigs Højskole* to investigate how a sustainable change can succeed at different folk high schools. The facilitated negotiation spaces (see Figure 2) led to continuous reframing and evolution of the design process, demonstrating the framework's effectiveness in mediating diverse concerns and fostering participatory engagement.
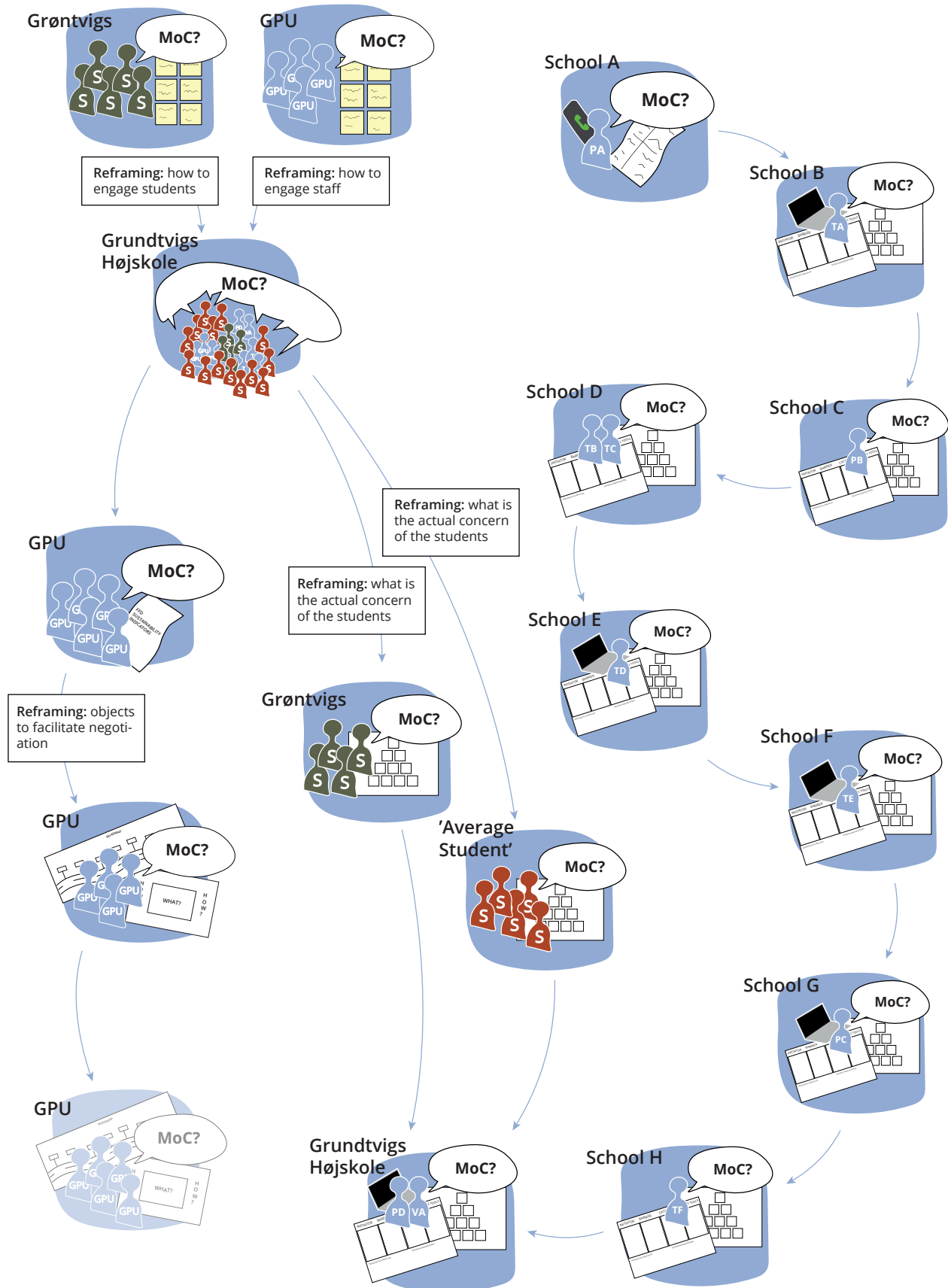
Figure 2 Visualisation of facilitated negotiations and reframings

4. METHODOLOGY

Throughout this research, SNS has acted not only as an analytical tool but also as a sensitising device, enabling exploration and comprehension of the complexities within the field. During this research, various objects have been circulated during negotiations to intentionally serve as intermediary objects. These objects have been inscribed a framing based on my interpretations and continuously reframed through previous negotiations to facilitate the representation, mediation, and translation of the different actors and their MoCs (Pedersen, 2020). The initial framing for each negotiation with the different folk high schools outside of *Grundtvigs Højskole* has been the same, as I wanted to investigate how the different folk high schools relate to the same framing. This allowed me to compare the translations that have occurred during the different negotiations to build a collective understanding. As all meetings have been conducted in Danish, citations are translated to the best of my ability throughout the analysis.

In exploring the implementation of sustainability at folk high schools, conducting research in a real-world setting has been crucial. Thus, a case study was undertaken to identify barriers and enablers in applying PD to achieve a stronger focus on sustainability within Danish folk high schools. Yin (2003) defines a case study as *"[...] an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident"* (p. 13). Thus, a case study has been relevant for this research to understand and gain insights that might not have been visible in a more controlled environment.

The case study has been conducted at *Grundtvigs Højskole,* Hillerød. Around 120 students arrive twice a year to engage in the community built on the traditions of the Danish folk high schools and the thoughts of N.F.S Grundtvig (Grundtvigs Højskole, n.d.). A majority of the students identify themselves as females, and the school tends to especially employ students from the left-wing middle class. The students are, on average 21 and have finished upper secondary school.

From August 2023 till June 2024, I have been associated with *Grundtvigs Højskole*, investigating and supporting their work with sustainability. For the first four months of my engagement, I focused on supporting the implementation of sustainability initiatives at *Grundtvigs Højskole* by engaging staff and students in a PD process. This position has made the case study feasible as it has given me comprehensive access to the different actors related to the school, both through meetings and informal conversations and interactions. Insights from this phase have been valuable in further

research and the creation of objects to facilitate negotiations with relevant actors within the field, as I, for the past four months, have expanded my research to investigate how other folk high schools interpret and work with sustainability.

DISCOVERING DIFFERENT MATTERS OF CONCERN THROUGH NEGOTIATIONS

This research is based on the initial claim that the youth no longer actively engage in the sustainability agenda. Thus, this research seeks to investigate whether this claim is valid and additionally provide a strategy that can help ensure that sustainability becomes a shared matter of concern among management, staff, and students at the folk high schools. To ensure this, different negotiations have been facilitated to explore and navigate different MoCs. By investigating the field as an arena containing different actor-worlds with different agendas and concerns, I have been able to decide where negotiation should be staged and explore how different actions influence different actor-worlds and their power.

Engaging staff and students through committees

To ensure that the knowledge from management, staff and students is represented and mediated, two different sustainability committees have been created during this research: *Grøntvigs* (a student sustainability committee) and *Det Grønne Personale Udvalg* (GPU – a staff sustainability committee). Each committee has been invited to several meetings and negotiations during the research. The initial phase of the committees focussed on negotiating the purpose with the committees based on the participants' concerns and interpretations. The framing of the negotiations was based on my agenda in relation to conducting this research. At the first meeting with *GPU,* I presented several slips with different concerns based on empirical findings – for example, '*The students are tired of sustainability and do not prioritise it'* and *'The environmental sustainability is of highest priority'*. The participants were asked to discuss the concerns and inscribe new ones. Afterwards, they were asked to prioritise them to visualise their main concern. The concerns acted as an intermediary object, as they mediated the knowledge from the participants, which afterwards was inscribed into the object. Whereas *GPU* is a permanent committee with the same representatives created in the autumn of 2023, *Grøntvigs* changes according to the participants each semester. At the beginning of the spring semester, all students were invited to an initial meeting seeking to introduce the concept of *Grøntvigs* and allow the students to present their concerns for me to be able to frame the committee.

Hosting a *Climate Week* to increase focus on sustainability

Seeking to address the concern that there is a decreasing interest in sustainability among the students, the concept of a recurring *Climate* W*eek* was first introduced and hosted in the autumn semester of 2023. The framing of the *Climate Week* was based on negotiations with *Grøntvigs* and *GPU,* where I acted as the facilitator and aimed to negotiate a format for the *Climate Week* that could encourage action. This resulted in a setup that focused on behavioural change and individual challenges to explore what staff and students were able and willing to change in their daily practices – for example, short showers, less coffee, a vegan diet, etc. Based on feedback gathered following the first *Climate Week*, a second *Climate Week* was hosted in the spring semester. To ensure that concerns from the broader group of students were represented, feedback from the previous students on the *Climate Week* was brought to these negotiations to act as an intermediary object. The feedback suggested that the focus should be on structural problems rather than on individual responsibility. To encompass this feedback, the *Climate Week* in the spring was adjusted through negotiations with *GPU* and *Grøntvigs.* *GPU* represents the concerns among management and staff, which, in relation to the *Climate Week*, are focused on a lack of time and resources and limited knowledge on acting more sustainably. *Grøntvigs* represents the concerns of the students who are engaged in sustainability. Their concerns also focus on a lack of time, 'more action, less talking' and missing student and staff engagement. The overall focus for the second *Climate Week* aimed to initiate different initiatives that could help support a structural change in how we deal with sustainability at the school. To accomplish this, both staff and students were encouraged to collaborate in groups to generate different initiatives that they could implement throughout the week.

The students were asked to evaluate the week through an online survey based on what worked well, what should be changed and an overall rating of the week on a scale from 1-10. One student stated: *"There was a lot of confusion regarding the product. I think more courses should have been appointed to work with the initiatives as we forgot to do it in our spare time.".* In general, many students pointed to time being a barrier for the *Climate Week*'s success and feedback showed that the framing of the second *Climate Week* did not manage to encompass the concerns of the broader group of students, which resulted in a lack of support. This suggests an exclusion of relevant actors. Thus, it was relevant to investigate concerns among the broader group of students, to negotiate these and gain their support in the future when implementing sustainability at the school.

Negotiating with the students at *Grundtvigs Højskole*

To ensure that the students' concerns regarding an increased focus on sustainability at folk high schools were represented, I facilitated two negotiations spaces with students: one with members of *Grøntvigs* and a second one with a randomly picked group of students (see Figure 3).
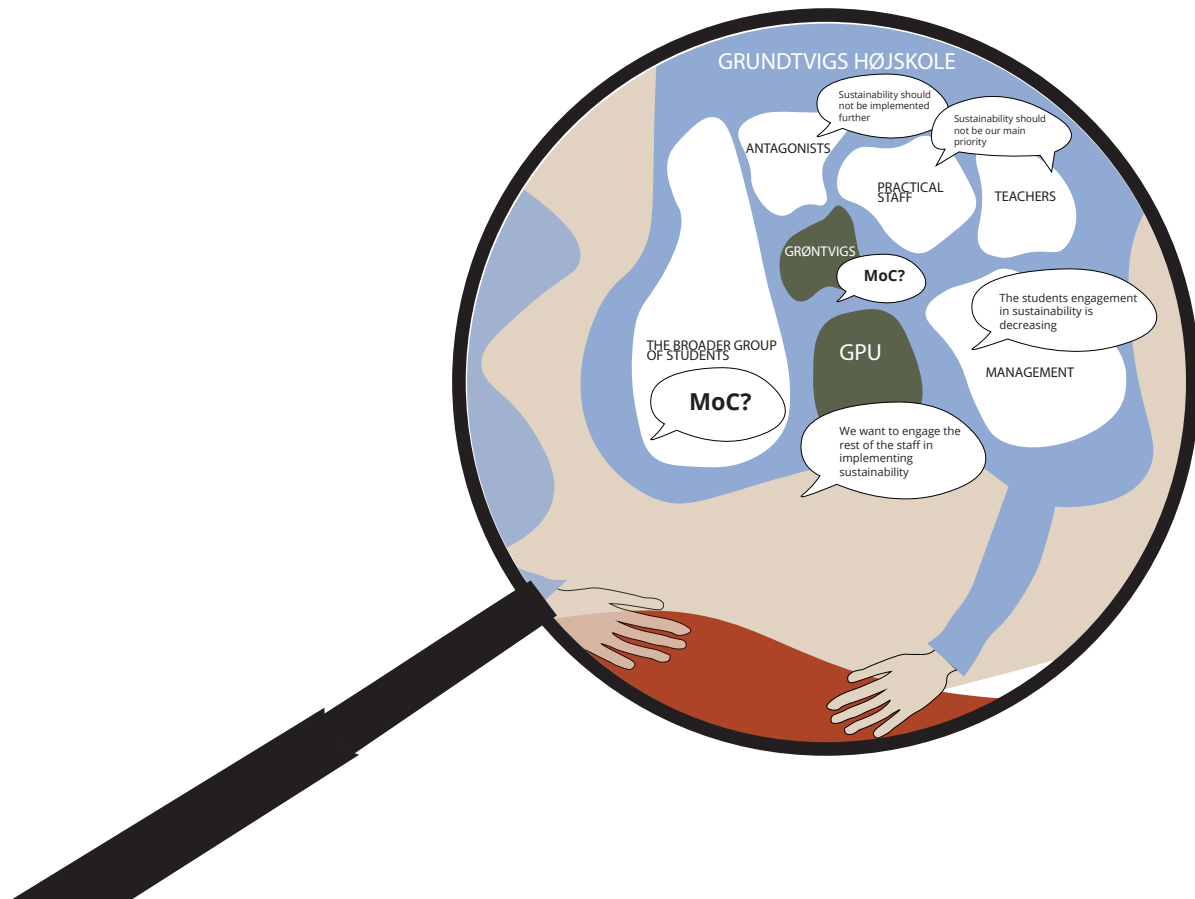

Figure 3 Development Arena zoomed in on Grundtvigs Højskole to discover where negotiations should be facilitated within the school

At the meetings, I presented a board with a pyramid of boxes (see Figure 4). Some of the characteristics I presented were intended to "provoke" and facilitate a discussion. Forcing the participants to prioritise the characteristics resulted in reflections and discussions upon what is indeed the most important characteristic of a sustainable folk high school. This was valuable to see how different actors interpret sustainability in relation to folk high schools and how concerns were translated based on the prioritisation. Post-Its from previous negotiations were inscribed into the object for following negotiations. By using the same object, the results and insights from different negotiations could be compared and different patterns became clear.
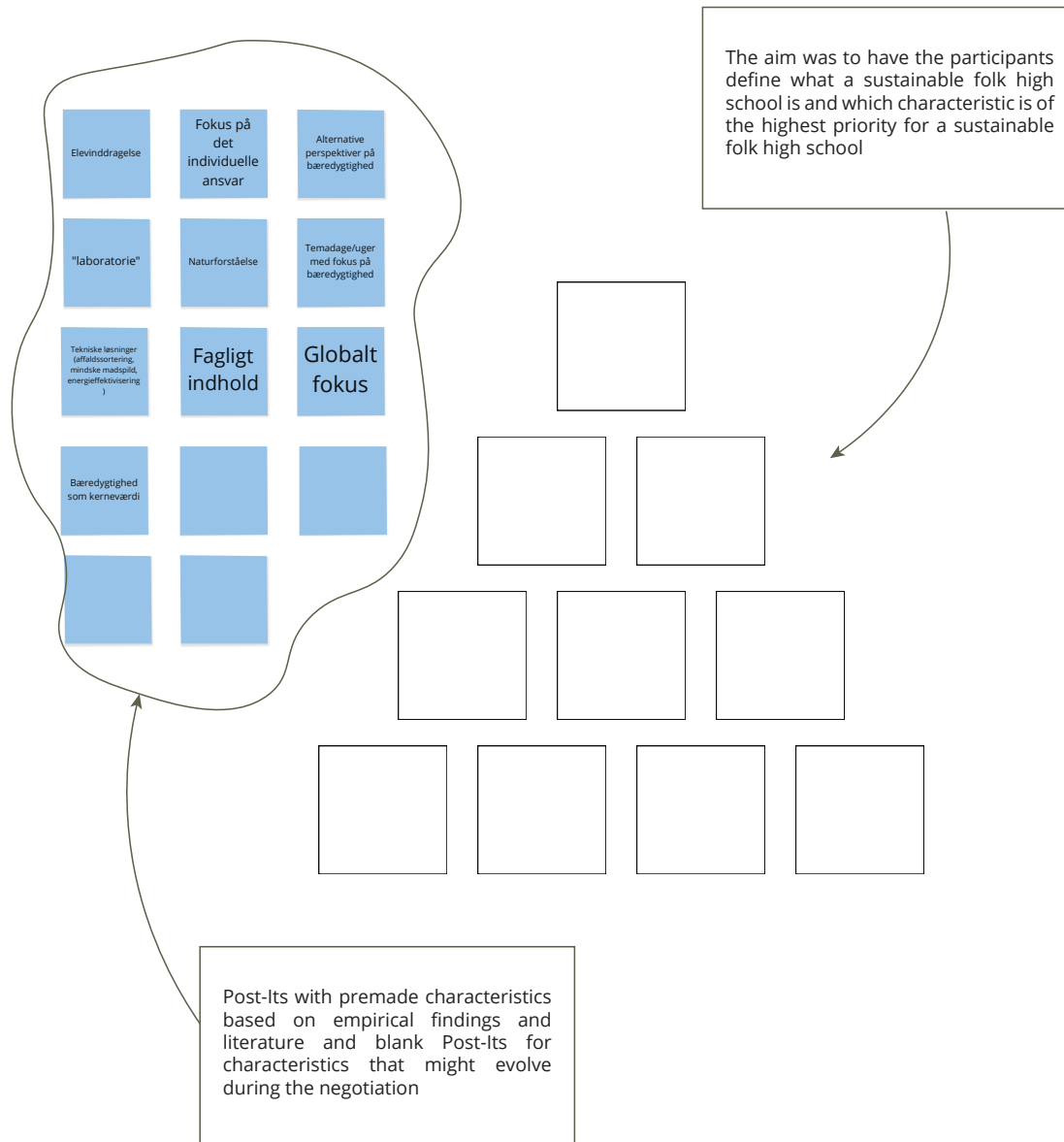
Figure 4 Explanation of the Prioritisation Board

What is concerning the climate-conscious students at Grundtvigs Højskole?

During this negotiation, four out of seven students from *Grøntvigs* participated (see Picture 1). All four students are engaged in the sustainability agenda; thus, the school's sustainability is a priority for them. They prioritised the different characteristics based on discussions of the premade Post-Its and the development of new ones (these are indicated with red) (see Picture 2). The main concern among the representatives from *Grøntvigs* was that sustainability should be a part of the *Bildung* perspective at the school. They further state: *"The most important thing for a sustainable folk high school is the holistic perspective"* (Student A), which they refer to as avoiding solely focusing on

environmental sustainability. The students believe that sustainability should be a regulative requirement for all courses at a folk high school. They agree that creating and focusing on values is more important than the actual actions that are taking place inside the school – one state that: *"[…] it is reaching broader if you can change or at least affect people's value foundation, then you could reach further than by telling them how a windmill is working"* (Student D). This does not mean that actions are not important at a folk high school, as another one state: *"[…] a sustainable folk high school is also that you do not travel by plane on study trips, that you eat vegetarian. […]"* (Student A).

The result from this negotiation clearly shows that this group of students is ready to be exposed to an even more substantial sustainability agenda at the school. This is not surprising, as it is a group of students who are committed to the agenda. For them, the main priority is merely the focus on values and what can be brought into their lives after their stay. Technical initiatives such as waste sorting are also expected to be implemented at the school, but seems more like a matter of course to the students.


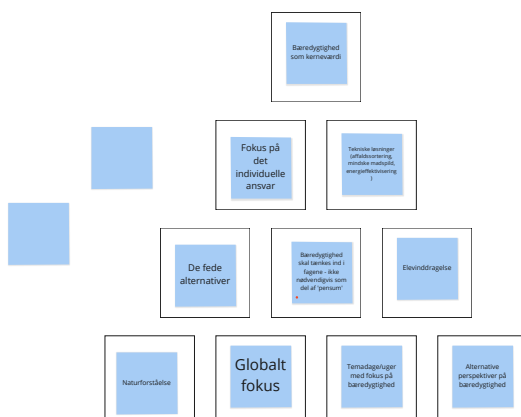*Picture 1 Drawing from field notes from negotiation with Grøntvigs*

What is concerning the broader group of students at Grundtvigs Højskole?

A group of five students voluntarily agreed to participate in a negotiation. These students were randomly picked by me - the only criteria were that they are not engaged in *Grøntvigs.* The frame for this negotiation space was to explore how they interpret sustainability and their concerns regarding an increased focus on sustainability at the school. The main concern within this group is that they are tired of the talk and are seeking more action: *"Sometimes I think that we just talk a lot about sustainability. About the fact that you should be sustainable. But without that much actual action."* (Student H). They state that they are forced to position themselves in relation to sustainability and that the extensive focus on sustainability can seem overwhelming – especially when it enters a structural level: *"But I actually think that, in contrast, I get a little exhausted thinking about how far up we need to go before it has an effect. Then I get a little discouraged, I can tell. Because that is something I cannot influence so I get a better conscience by doing something myself."* (Student E).

When discussing how sustainability could be a part of the curriculum, the students state that it should be presented in 'another form' than what they are used to from primary school and high school. Instead of having a course solely focusing on sustainability, the group believes it should be an underlying factor in all courses. During the exercise, I introduced the Post-It labelled '*Sustainability as a key value',* which caused the group to revise their prioritisation (see Picture 3), elevating *'Sustainability as a key value'* to the top of the pyramid and stating: *"I believe this is really important if the school is to help shape us and prepare us for life out there, then you need to focus on sustainability. It is simply a premise for our lives"* (Student H).
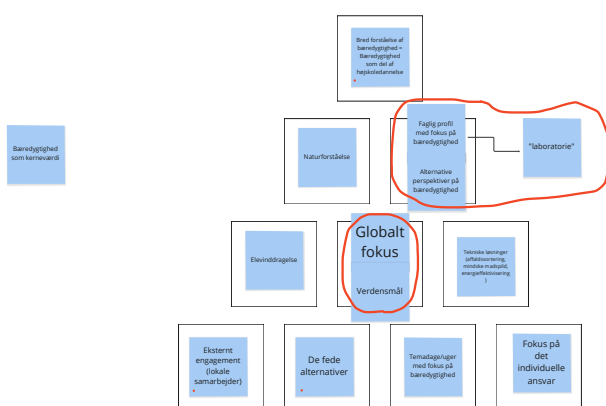
Picture 2 Results from Prioritisation with members from Grøntvigs　　　　*Picture 3 Results from Prioritisation with group of Average Students*

Reframing the initial claim

Both groups agree that discussing sustainability without focusing on values or concrete actions is inadequate. They expect the school to at least focus on easy-to-adopt technical solutions—these should be a matter of course. Both groups want students to be engaged in implementing new initiatives, yet they emphasise that they have much to manage and thus limited time. While the school may have established procedures that are not necessarily negotiated with students before implementation, prioritising student influence on initiatives remains essential.

The insights from these two negotiations point to a reframing of the initial claim. According to the students who participated in the negotiations, the school needs to focus on more concrete action and less talking, as the students are equipped with the facts through their educational life so far. Insights from both meetings were encompassed in a reframing prior to a negotiation with management to represent the real concerns among the students. These insights invalidate the hypothesis that the students do not care about sustainability, rather, they show that we need to create a shared definition encompassing alternative perspectives and new strategies.

Expanding the research: What is going on outside *Grundtvigs Højskole*?

From an arena perspective, *Grundtvigs Højskole* is not an isolated actor-world that is unaffected by others. Investigating the arena shows how actions might affect the power relations and agency among the different actor-worlds, and thus *Grundtvigs Højskole*. It is also by investigating the arena it became clear to me where negotiations should be staged, to discover the different MoCs and strengthen the final solution to increase sustainability at folk high schools (see Figure 5).

To understand sustainability at folk high schools from a broader perspective, it is relevant to investigate how other Danish folk high schools work with sustainability and which enablers and barriers they experience. To delimit the field, I have mainly focused on schools that have adapted to the sustainability agenda to some degree (see Appendix 1).
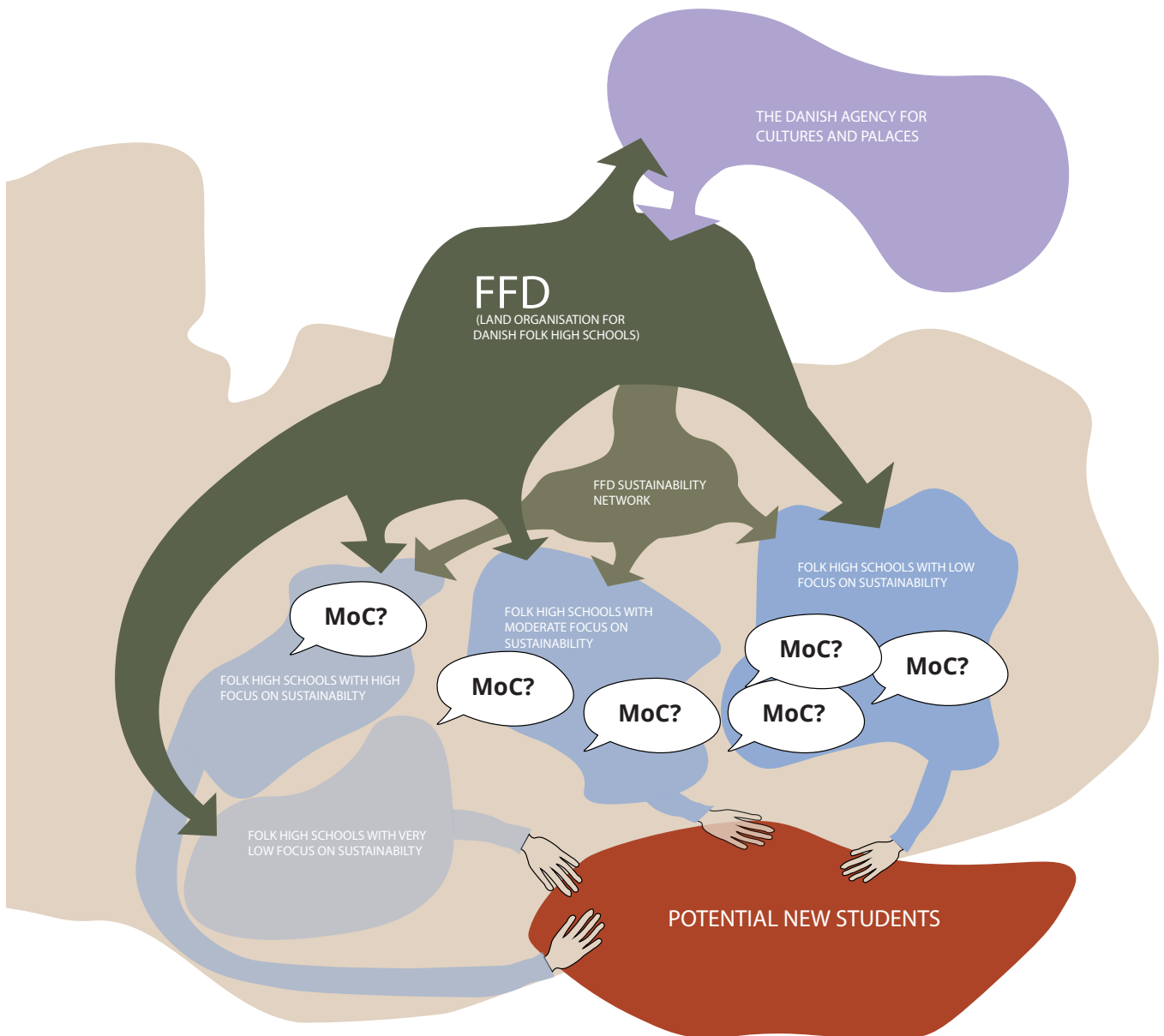
Figure 5 Visualisation of the Development Arena and where negotiations should be facilitated to discover the different MoCs

The frame for the different negotiations is described in Table 1. Two different objects were introduced at the negotiations. The first object was seeking to access the knowledge of the actors at different folk high schools and have them reflect upon their current and future work with sustainability (see Figure 6). Secondly, the *Prioritisation* board presented in section 5.3 was introduced (see Figure 4). Table 2 presents the key takeaways from the negotiations (the *Four Boxes* board and *Prioritisation* board results can be found in Appendix 2 and Appendix 3).

ACTIVITY	PURPOSE
Short introduction to sustainability at schools	The purpose of the introduction from tne participants was to facilitate a reflection upon the schools' work with sustainability. This was an initial exercise prior to the introduction of the objects
Four Boxes Board: Sustainability at the school	The purpose of the first design object was to clarify what can enable the implementation of sustainability, which barriers to overcome and what future tools could be valuable
Prioritisation Board: The ideal sustainable folk high school	The purpose of the second design object is to investigate different interpretations of sustainability based on the prioritisation of different characteristics

Table 1 Structure of the negotiations facilitated with the different folk high schools

5.4.1 Management support and a shared vision enables sustainability

The results from the different negotiations show that the schools where sustainability has become a strategic concern for management appear to take decisive and consistent action in implementing sustainability initiatives. The principal from School C states: *"[...] at least it has been urgent for me that we have talked sustainability in all strategic work we have been doing."* (Principal B). Whereas a teacher from School D states: *"So in that way, I do not believe that we as a folk high school work with it [sustainability] deliberate. That we have a strategy, or we have an aim, or that we have some ambitions."* (Teacher B) and further adds *"[...] I believe that management is a barrier. Because this is not prioritised. And it is not valued. And there is nobody who is like, says, this is important."* (Teacher B). A strategic concern is to create a shared vision for sustainability. At School B, they work actively with their visions, but visions for sustainability often fall between two stools, as they concern multiple domains, which requires a shared effort. According to the teacher from School E, a clear strategy, visions, and continuous support from students, staff, and management ensure that their work with sustainability at the school keeps developing. These findings indicate that support from management and a shared vision for sustainability within the school enables sustainability to be anchored. However, this requires prioritisation and management to be translated to adapt to the concern that sustainability should be increased at the schools.
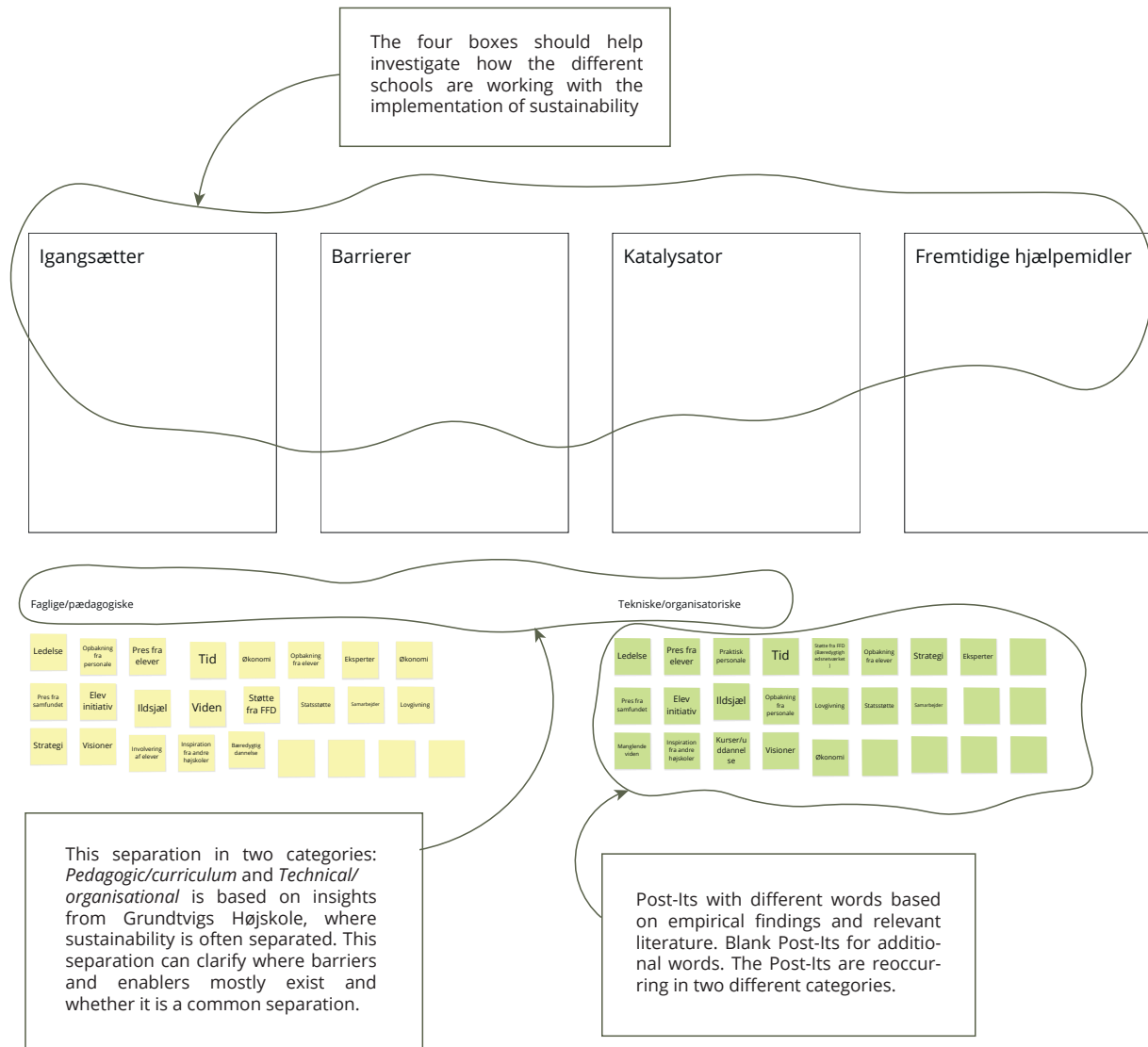
The four boxes should help investigate how the different schools are working with the implementation of sustainability

Igangsætter

Barrierer

Katalysator

Fremtidige hjælpemidler

Faglige/pædagogiske

Tekniske/organisatoriske

Ledelse	Opbakning fra personale	Pres fra elever	Tid	Økonomi	Opbakning fra elever	Eksperter	Økonomi
Pres fra samfundet	Elev initiativ	Ildsjæl	Viden	Støtte fra FFD	Statsstøtte	Samarbejder	Lovgjvning
Strategi	Visioner	Involvering af elever	Inspiration fra andre højskoler	Bæredygtig dannelse			

Ledelse	Pres fra elever	Praktisk personale	Tid	Støtte fra FFD (Bæredygtigt højskolenetværket)	Opbakning fra elever	Strategi	Eksperter
Pres fra samfundet	Elev initiativ	Ildsjæl	Opbakning fra personale	Lovgjvning	Statsstøtte	Samarbejder	
Manglende viden	Inspiration fra andre højskoler	Kurser/uddannelse	Visioner	Økonomi			

This separation in two categories: *Pedagogic/curriculum* and *Technical/organisational* is based on insights from Grundtvigs Højskole, where sustainability is often separated. This separation can clarify where barriers and enablers mostly exist and whether it is a common separation.

Post-Its with different words based on empirical findings and relevant literature. Blank Post-Its for additional words. The Post-Its are reoccurring in two different categories.

Figure 6 Description of the Four Boxes board used at the different negotiations

5.4.2 Engagement of students and staff

As sustainability involves all domains of the school, engaging different relevant actors is essential. At School D, they experience the effort as fragmented and something that is only concerning the minority. This is causing a standstill and demotivation among the few actors who seek to create a change. In opposition, School E and School F experience a strong engagement from students and staff – here, sustainability is a shared matter of concern. However, it also causes a dilemma, as sustainability concerns cannot outweigh the teaching of the students. Several of the schools experience student engagement regarding sustainability as varying. Previously, students have acted as catalysts for sustainability, but newer tendencies at the schools show that the students seem burned out. They are tired of the talk and want to see some action. To encourage

student engagement, School A involves the students in the sustainability agenda by encouraging them to brainstorm new initiatives across various areas. These initiatives are then returned to the staff to evaluate and develop initiatives for potential implementation. This collaborative process ensures that students and staff are involved in shaping the school's sustainability efforts; as the principal states: *"I just think that some of them are not very happy about the wildest changes."* (Principal A). This underscores the importance of involving all relevant actors to ensure they feel empowered and have a meaningful impact on their reality.

5.4.3 Time and money as a common barrier

Every school points to economy and time as the most concerning barriers to increase sustainability. Sustainability initiatives can require investments, and new strategies may require time, which is rare for staff and students when everyday life runs. At School G the principal argues that the most crucial task is to make everyday life work – ensure the students can shower, receive their teaching and get food and then when all this is working, sustainability projects can be a concern. At School E and School F, they experience the same dilemma. The teacher from School F states: *"Thus, there is so much potential at the school, but we are not really enough when we are also going to teach."* (Teacher E).

5.4.5 Sustainability as a key value

The vast majority agree that the ideal sustainable folk high school must have sustainability as a key value. This will ensure that all activities, whether related to curriculum or facilities, must incorporate sustainability considerations. School C has already integrated sustainability into its key values, and to this, the principal states, *"[…] we have written that environmental and social sustainability must permeate everything we do at the school. And that is quite a big commitment because the key values are what governs all activities at a folk high school."* (Principal B). The principal at School G firmly believes that sustainability should be a core value, and he further emphasises: *"It is not enough to talk about it. We also need to do something"* (Principal C).

Even though all these folk high schools differ, there is a consensus on some of the main concerns regarding implementing and anchoring sustainability at each school. Several enablers and barriers are consistent, and what is slowing down the process is primarily a lack of shared effort, resources and participation from relevant actors.

FOLK HIGH SCHOOL	PARTICIPANT(S)	SUSTAINABILITY APPROACH	KEY CONCERNS	ENABLERS FOR SUSTAINABILITY	BARRIERS FOR SUSTAINABILITY	INTERPRETATION OF THE SUSTAINABLE FOLK HIGH SCHOOL
School A	Principal A (since 2022)	Sustainability as a part of DNA	Limited focus on technical solutions (waste sorting etc.), involving the students, sustainability is as important as democratic *bildung*,	Creation of a shared strategy, involvement of students	Acting can be difficult, changes can be met with resistance,	
School B	Teacher A (since 2017)	Sustainability as an add-on that is hard to anchor	Sustainability is optional, no shared definition, visions and strategies is needed	Funding for sustainability initiatives, sustainability networking	Difficult to represent all students, sustainability initiatives require investments, at the end it is a business	1. Curriculum 2. Technical solutions (waste sorting etc.) 3. "Laboratory" approach
School C	Principal B (since 2020)	Particular focus on social sustainability	Sustainability comes with responsibility, strong student engagement and anticipation	Young school not fixed by traditions, shared staff values, management-driven, clear strategy	Facilities are restraining sustainability, sustainability initiatives take time,	1. Sustainability as a key value 2. Curriculum 3. Focus on individual responsibility
School D	Teacher B (since 2011) Teacher C (since 1996)	Fragmented sustainability effort	No shared definition, need for a systemic approach, economy as driver, less talk more action, the school should set a frame for sustainability	The school can act as a laboratory, fireballs among teacher who are engaged in sustainability	Varying student engagement, missing support/prioritising from management and staff, strong focus on dignity (for students with disabilities) can be a barrier	1."Green transition" as a value ■ 2.Theme days/weeks focusing on sustainability 3.Technical solutions (waste sorting etc.)
School E	Teacher D (since 2021)	Sustainability as a part of DNA	Balancing the educational benefit and sustainable initiatives	Shared definition of sustainability, students join school because of sustainability profile, action approach	Old facilities, sustainability initiatives require time and money	1. Sustainability as key value 2. Actor involvement ■ 3. Curriculum
School F	Teacher E (since 2022)	Sustainability as a part of DNA	Less talk, more action, balancing teaching of students and sustainability initiatives	Action approach, strong engagement from staff, students, and management, sustainability is a part of the 'brand' of the school, focus on sustainability since the 90s	Sustainability initiatives require time and economy, the students' teaching is in focus, it takes time	1.Sustainability should be lived and imbue everything (food energy etc.) – a key value ■ 2."Laboratory approach" 3.Sustainability should be understood at something that creates a difference/regenerative ·
School G	Principal C (since 2014)	A strategy for sustainability	Sustainability becomes even more important as engagement among students a decreasing, a shared effort throughout the school	Action approach, a shared strategy for sustainability	The everyday life comes before sustainability, sustainability initiatives require time and money, students seem tired of the talk	1.Sustainability as key value 2.Sustainable *bildung* ■ 3.Technical solutions (waste sorting etc.)
School H	Teacher F (since 2021)	Sustainability as a key value	Varying student engagement, conflictual perspectives among staff	Strong management engagement, collaborations with local networks, vice principal with focus on sustainability	Varying agendas among staff, sustainability initiatives require time and money	1.Sustainability as key value 2.Understanding of nature 3.The collective movement ■

Table 2 Key findings from negotiations with the different folk high schools.

5.5 Reframing and negotiation with management at Grundtvigs Højskole

The previous negotiations led to a new negotiation with the principal and vice principal at *Grundtvigs Højskole*. The frame for this negotiation was to dig deeper into the school's interpretation of sustainability, compare and find patterns with the other folk high schools, and investigate if what they say they do aligns with what they do in practice. The *Four Boxes Board* and *Prioritisation Board* were presented to facilitate the meeting. As the two boards were used at the previous negotiations, they were reframed to represent some of the key findings from these negotiations.

In Table 3, some of the key takeaways from the meeting are presented. Management states that the focus on sustainability was initiated due to 'pressure' and societal movements. In the past, engagement among students was an initiator for the school's work with sustainability, but now, student engagement is rather experienced as a barrier. This concern seems based on obstinate assumptions and earlier experiences rather than student observations and knowledge as the principal, for example, states that even though the students rate the food high in their evaluations at the end of the semester, they are not being honest - he states: *"They know what they should respond [...] they are a bit embarrassed about some of their opinions they have. But in reality, they really like a red sausage."* (Principal D). This statement points to the importance of facilitating negotiations where management's concerns can be presented, transformed, and mediated with the students for sustainability to become a shared matter of concern.

Throughout the prioritisation of characteristics for a sustainable folk high school, it became evident how the *Priotisation* board acted as an intermediary object, allowing the principal and vice principal to translate and mediate different matters of concern. One example was when the principal placed *'Technical solutions (waste sorting, energy efficiency, etc.)* as the most important characteristic, the vice principal disagreed and argued that *'Sustainability as cure value'* should be placed as the highest, as this is the foundation and something that saturate everything– that convinced the principal.

Even though management has visions for the school's work with sustainability, these visions do not seem to be shared, as the results from the negotiations show that they still suffer from missing support from staff and the larger group of students. During the negotiations with the two groups of students at *Grundtvigs Højskole*, it was clear that they are ready to engage but also expect the school to take action and implement sustainability initiatives that allow for the students' influence. This calls for a participatory process to obtain a shared definition of how sustainability should be

interpreted and addressed for (a) the students to develop values and competencies to bring into their lives outside of the school, (b) management to keep attracting students and align with expectations from society and other powers that affects the school and (c) the staff to work within the frame of their didactical competences and allow them to implement each of their professional skill set as these are important in the traditions of the folk high school.

KEY CONCERNS	ENABLERS FOR SUSTAINABILITY	BARRIERS FOR SUSTAINABILITY	INTERPRETATION OF THE SUSTAINABLE FOLK HIGH SCHOOL
Decrease in student engagement	Sustainability initiatives that benefits economically	Missing support from staff	1. Understanding of nature
Too strong focus on sustainability might have a negative effect on student attendance	Clear visions	Missing support from students	2. Sustainability as a key value
The school should mainly focus on environmental sustainability and technical solutions	Support from FFD	Sustainability initiatives requires investments	3. Technical solutions (waste sorting etc.)
	Inspiration from other folk high schools		
	"Fireballs"		
	Courses and education for staff to increase knowledge within the field		

Table 3 Key findings from negotiation with management at Grundtvigs Højskole

5.6 Negotiating with the spokespersons

As I am handing over the project, it is necessary to mobilise the right spokespersons to continue the project and, thus, the implementation of sustainability at the school. The concerns presented by GPU during our meetings point to an encouragement to continue the project when I leave the school – the vice principal states that they want to ensure that the initiatives implemented so far do not run out in the sand. To ensure that *GPU* are prepared, I facilitated an initial negotiation aiming to create a *'Roadmap'* for them to follow (see Picture 4). Four out of five participated in the negotiation. The *'Roadmap'* was developed through an exercise in which participants individually reflected on the committee's objectives, specifically considering what goals they are working towards and how they plan to achieve them (see Picture 5). The individually produced Post-Its was then negotiated and transformed into three main objectives. As the committee represents different departments of the school, the attendance of each

member is crucial. Thus, further negotiations to define the committee's aim and a *'Roadmap'* depend on a space where all members can participate. As some members have been introduced to the two objects: *What/how* and *Roadmap*, these objects can be circulated during a future meeting to mediate and translate each committee member's concerns. This exercise can further support the member's ability to facilitate negotiations necessary for the continuing project.

Picture 4 'Roadmap'

Picture 5 What/How

FIVE ITERATIVE PHASES FOR IMPLEMENTING SUSTAINABILITY

This research demonstrates the barriers Danish folk high schools face in enhancing sustainability efforts. A lack of engagement and resources often results in fragmented initiatives driven primarily by highly motivated individuals or management. According to Lysgaard (2020), several folk high schools have managed to encompass sustainability. Still, the findings from this study show that the sustainability agenda at folk high schools seems to stagnate, and concrete strategies and actionable tools are missing. To address these challenges, I propose a strategy inspired by the participatory design approach that contains five iterative phases. The strategy aims to make sustainability a shared matter of concern at Danish folk high schools to support the youth generations' competencies to navigate a complex future. The phases should not be seen as linear but rather as an iterative process in which previous phases should continuously be revisited to avoid stagnation. Even though the process is not linear, some phases are codependent (see Figure 7).
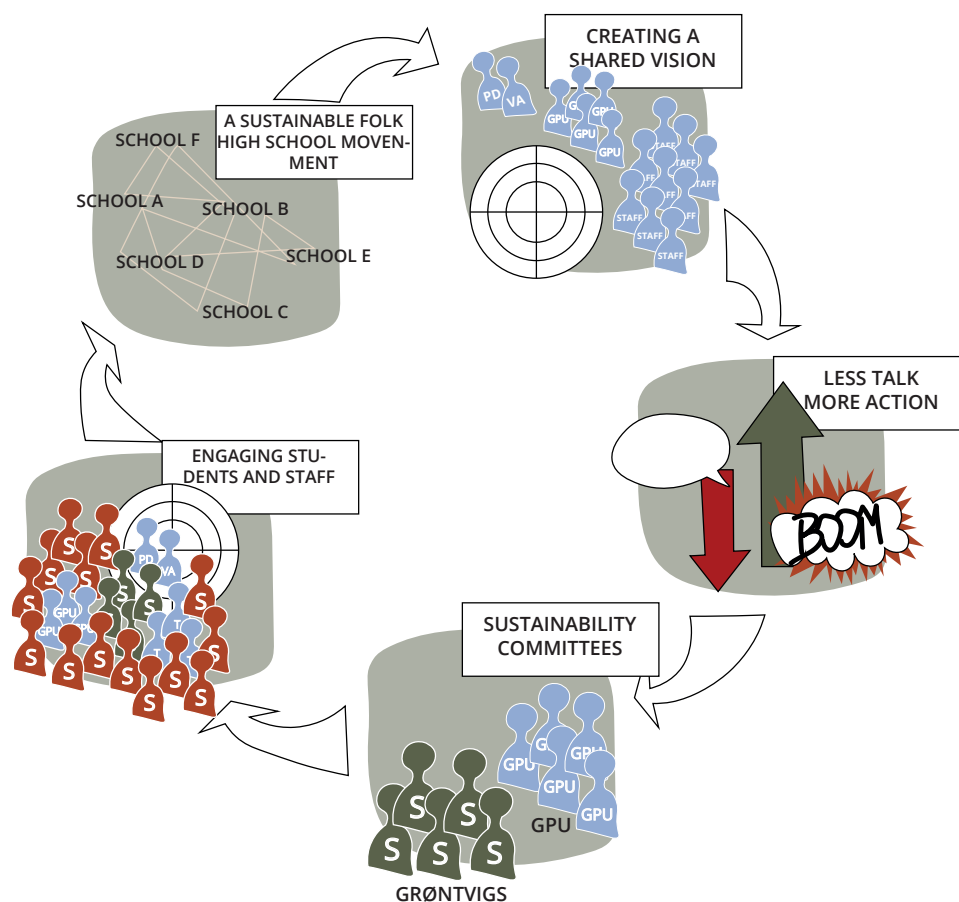
Figure 7 Visualisation of the 5 phase strategy to implement sustainability at folk high schools

DISCUSSION

6.1 Creating a shared vision

The initial phase of the strategy is designed to help schools create a shared vision for their sustainability initiatives. According to Rathje (2023), the lack of a clear and unified vision is a main barrier to implementing sustainability in schools. To overcome this barrier, schools need to allocate time and resources to negotiate and define a shared vision. Both the findings from the analysis and Rathje (2023) highlight that time is a limited resource in schools, which poses a significant challenge. To address this issue, the strategy must include PD methods to ensure that all relevant actors are involved in defining the school's shared vision. As Alvesson (2002) argues, successful change management should not focus on doing things objectively right but rather on the interpretations of various stakeholders. Thus, the shared vision should act as an intermediary object circulating during negotiations with staff and management to be transformed and transform actors to achieve compromises. From a theoretical perspective, treating sustainability as a MoC aligns with ANT, which emphasises the importance of network configurations. A shared vision will strengthen the actor-world concerned with the implementation of sustainability and help unify practices and agendas within the school by configuring a network around a shared MoC.

However, negotiating a shared vision requires considerable time and prioritisation, which is a significant limitation since subsequent phases of the strategy heavily depend on having a shared vision. Thus, it is crucial to test a framework for creating a shared vision and evaluate and understand the challenges and concerns of the management and *GPU* in facilitating such negotiations in real-life practice.

Creating a shared vision is not just a procedural step but a participatory process that requires engagement. Thus, the schools must be willing to invest the resources, especially in terms of time, to create a shared vision and be able to continue and succeed in implementing sustainability.

6.2 A little less conversation, a little more action

Based on the findings of this research, a recurring concern is that we talk a lot but act too little. In response, the second phase of this strategy presents an actionable step seeking to allow for actions and reflections to be intertwined to engage in sustainability issues.

One way to encourage action is by inviting staff and students to engage in a *Climate Week*. They should not just engage in the week by participating but also take part in planning the week. As Jensen and Schnack (1997) argue, for something to be an action from an ESD perspective, the students must define the action, which should be solving a concrete problem. However, the week must not become an isolated effort that loses momentum afterwards. Instead, the week should be hosted early in the semester as an initiator for new sustainable experiences and routines that, according to Jensen and Schnack (1997), regulate how we act.

The risk is that action can be conceived as behaviour modification, such as taking shorter showers or sorting your waste, which is not what this phase aims to address. While these behaviours are also important, this phase seeks to support a deeper and more active engagement to encourage the students to become active democratic citizens when they leave the school. This also aligns with the broader objectives within ESD, which seek to provide the students with critical thinking (Ryen and Jøsok, 2023; Van Poeck and Vandenabeele, 2014; Wals, 2010; Willbergh, 2015).

From an ANT perspective, actions reveal a network's configuration. Observing actions during the *Climate Week* allows one to identify power relations and the inclusions and exclusions of actors within the network. These insights allow for continuous improvement and evolution of the *Climate Week* format, ensuring it remains effective and inclusive.

6.3 Committees for sustainability

As Iversen and Dindler (2014) argue, ensuring that initiatives implemented during a PD project are sustained after the project ends is crucial for achieving long-term results. ANT supports this by emphasising the need for the right spokesperson (Callon, 1986). Therefore, the third phase of the strategy aims to establish sustainability committees with representatives from each school department, including staff and students.

The analysis shows that for the implementation of sustainability to gain momentum, somebody must catch the ball and play it forward. Several schools have experienced how sustainability has gained momentum when management is the one leading the game. Still, for a participatory project to succeed, it is essential to involve all relevant actors (Pedersen and Brodersen, 2020). Thus, this phase seeks to employ committees to represent different concerns within the school during negotiations where only some actors are included.

A limitation is that this approach might silence marginalised groups as committees may predominantly represent the broader streams. The committee members will most properly adopt the sustainability agenda, and the risk is that they will not be able to represent those who are not yet convinced. Thus, future research should explore ways to enhance representation and ensure the right spokespersons, to make sustainability a shared matter of concern.

6.4 Continuously engaging students and staff

The research shows that several schools are experiencing a lack of engagement from students and staff regarding sustainability. As Rathje (2023) argues, achieving systemic change within the school requires the involvement of all relevant actors. Thus, this continuous engagement is essential. The fourth phase of the strategy provides a framework inspired by Pedersen's (2020) SNS framework. The framework seeks to represent and mediate the knowledge and concerns among staff and students who are not members of the committees to foster a continuous PD process.

Negotiations with student groups indicate a willingness to engage. Although students do not expect to be involved in every process related to the school's sustainability efforts, they believe in the importance of having opportunities to present their concerns and suggestions. Lysgaard (2020) argues that schools must encourage student engagement in societal dilemmas, theoretically and practically, even if interest decreases. Rather, this should motivate schools to invest more energy in addressing student concerns within the sustainability agenda.

The question arises: who should be responsible for the engagement of staff and students? It requires someone to facilitate negotiations without dominating. This role is crucial and may not suit everyone. Hence, this phase of the strategy should be tested and refined to develop a robust yet flexible framework that can guide facilitators, allowing for continuous reframing and adaptation during ongoing negotiations.

While this phase of the strategy provides an approach to increasing engagement, it has limitations. The framework's success relies heavily on the facilitator's skills and commitment and the students' and staff's willingness to participate. Future research should explore strategies to train facilitators and ways to maintain engagement over time. Additionally, testing the impact of different participatory methods on engagement and sustainability outcomes would provide valuable insights.

6.5 A sustainable folk high school movement

This strategy aims to support individual folk high schools in enhancing their sustainability efforts. However, literature suggests that folk high schools should not be considered isolated entities (Komischke-Konnerup, 2015) and according to Iversen and Dindler (2014) for a PD project to be sustainable, it must reach beyond isolated cases.

Folk high schools, as pointed out by Lysgaard (2020), Lund (2020) and Olsen (Olsen, 2018), have historically supported societal transitions through their flexible and experimental approaches. Thus, acting as a movement will result in a greater power to support a societal transition. From an arena perspective, strengthening the actor-world concerned with sustainability will successfully entail that actions performed in actor-worlds that are not engaged in sustainability do not have a critical effect on the sustainable folk high school movement. However, the sustainable folk high school movement might affect the less sustainable practices elsewhere within the arena (see Figure 8).
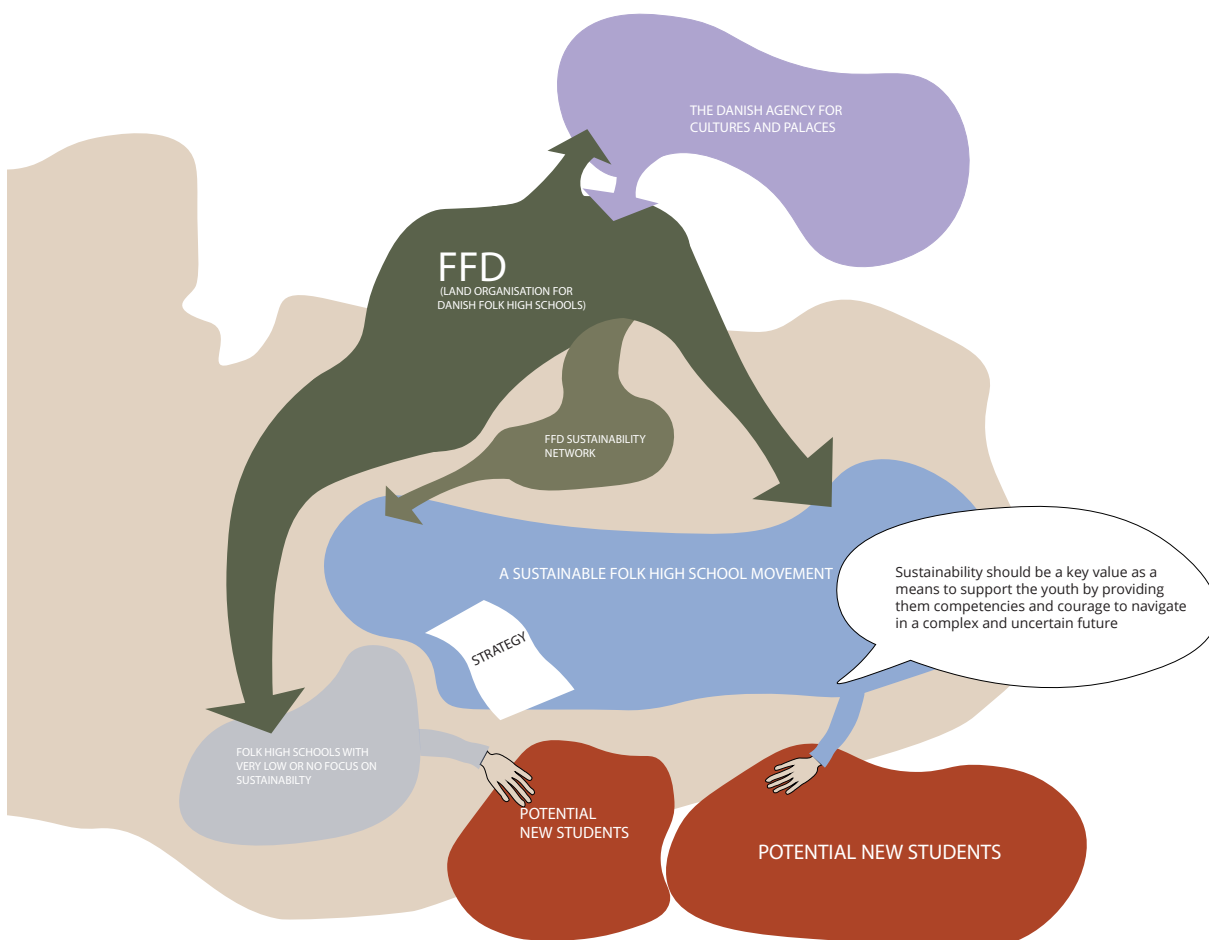
Figure 8 Development Arena after the strategy have been introduced and a Sustainable Folk High School Movement have been formed around the same MoC

Thus, this strategy provides a last phase to reach other folk high schools and create a shared movement for sustainability. This involves negotiating and addressing various schools' concerns to form a unified approach. An initial exercise could be designing a *Sustainability Manifest framework*, allowing schools to present, inscribe, and mediate their concerns into a non-binding agreement. To ensure the effectiveness of this last phase, the format must be tested thoroughly and refined with representatives from the different folk high schools.

6.6 Further research

This research encourages a PD process to implement sustainability at Danish folk high schools by emphasising the need to negotiate the different concerns among the relevant actors to ensure sustainability becomes a shared matter of concern. However, further research is essential to test and refine this strategy. Ideally, testing should involve management, *GPU*, and students at *Grundtvigs Højskole* to enhance its effectiveness and ensure the implementation after my departure. The testing should accommodate interpretations, allowing the strategy to serve as an intermediary object representing and translating participants' main concerns. Additionally, the strategy will be presented to other folk high schools involved in the research to obtain their feedback and make necessary adjustments for their specific contexts.

7 CONCLUSION

This research investigates how participatory design strategies can facilitate sustainability, becoming a shared matter of concern at Danish folk high schools to support the youths' ability to navigate a complex future. Despite the growing interest in sustainability within folk high schools in scholarly literature, actionable tools to guide the implementation remain limited. To address this gap, a participatory design approach has been employed to investigate how different objects can help negotiate and navigate different actors' different MoCs. Based on the research, a strategy containing five iterative phases has been created as a proposal to support the implementation at Danish folk high schools, that are ready to engage in sustainability. The strategy endeavours to:

1) **Create a shared vision for sustainability** to ensure that it becomes a shared matter and not a fragmented effort

2) **Move beyond talking and towards acting**, as both literature and empirical findings suggest that too little action can result in stagnation
3) **Establish sustainability committees among staff and students** to represent different concerns and continuously facilitate negotiations at the folk high schools
4) **Engaging the broader group of students and staff** to ensure that different perspectives are represented and that all relevant actors are encouraged to support the implementation
5) **Collaborate with other folk high schools** to ensure the sustainability agenda gains momentum and support in a broader context and is not just a matter of concern in isolated cases

The strategy embraces a systemic approach and encompasses all aspects of the school to facilitate a successful transition towards sustainability. Rather than offering a rigid, prescriptive roadmap, it serves as a dynamic tool to guide an iterative, participatory design process continuously negotiated by the actors engaged.

Testing and refinement in collaboration with relevant actors are crucial before the strategy's final implementation at Danish folk high schools. Nevertheless, this research significantly contributes to the field of sustainability in folk high schools by introducing a design-oriented perspective to facilitate change. While existing literature emphasises the importance of participatory methodologies from an ESD standpoint, there remains a scarcity of concrete tools designed specifically for the context of sustainability within folk high schools. By bridging this gap, this research lays the groundwork for more effective and inclusive implementation of sustainability initiatives within folk high schools, supporting future generations to become active democratic citizens with the competencies to navigate a complex future.

In conclusion, this research not only provides an actionable tool for the folk high school to implement sustainability, but it also emphasises the critical role of participatory design in achieving systemic change within an organisation. It further highlights the necessity of continuously engaging relevant actors to foster sustainability and ensure it becomes a shared matter of concern. The findings throughout this research can not only act valuable to folk high schools but also to other institutions within the educational system that seek to implement sustainability and support a sustainable transition of society.

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