Physically Active Learning in Practice: Paths to Implementation and Reception of Physically Active Learning in Schools

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Abstract

This article aims to provide knowledge on how school management and teachers respond to and adapt to the implementation of Physically Active Learning (PAL), with a special focus on identifying the barriers and driving forces that affect this process [1]. Through the collection and analysis of qualitative data, focus group interviews of school management and teachers, the article seeks to uncover and promote strategies for integrating PAL into daily teaching, making it a natural part of the school curriculum. It places special emphasis on teachers' attitudes and experiences, arguing that their engagement is essential for successful implementation. The article also explores the role of supportive leadership as a key factor for the success of PAL initiatives. It analyzes how the structural elements of school practice can be addressed and challenged and proposes strategic approaches for policy development and realization of PAL [2]. By highlighting the participants' experiences, the article provides insight that contributes to a more comprehensive understanding of the implementation methods for PAL.

Keywords: Implementation of Physically Active Learning (PAL), School management, Educational Adaptation Strategies, Teacher Engagement in PAL.

1. Introduction

Vingdal [3] asserts that physical activity involves various ways of physically expressing oneself through sports, physical education, exercise, outdoor activities, play, and everyday physical activity, and describes Physically Active Learning as learning through movement. The interest in integrating physical activity into the daily school routine has grown considerably, not least because of the many positive effects it has been shown to have on both pupils' health and academic performance. Examples of programs like Texas I-CAN [4] and TAKE 10! [5] illustrate how physical activity, when used as an integrated part of teaching subjects such as mathematics, language, and science, not only increases activity levels among pupils, but can also improve their learning outcomes. These findings are supported by Norris et al. [6], who in a review of 11 studies found that teaching methods that include physical activity led to positive learning outcomes – Several showed high learning effectiveness, some showed no learning effect, but none worsened.

Despite growing research confirming the positive effects of physical activity in schools, we face challenges related to how such activities can best be implemented as part of the daily school routine. Kriemler et al. [7] emphasize the need for further research to identify effective strategies for incorporating physical activity in schools, while Han & Weiss [8], Singh [9] and Waters et al. [10] point out the need for a deeper understanding of the factors that promote or hinder successful implementation. There has traditionally been a focus on evaluating the effects of health-promoting interventions, but there is now a growing recognition of the importance regarding the evaluating processes—how interventions are implemented, in order to better understand the results and possibilities for improvement. This perspective is supported by Durlak & DuPre [11] and Saunders [12], who argue for the significance of process evaluation. Robbins et al. [13] also highlight the importance of gaining insights into the experiences of pupils and teachers with implementing physically active learning in schools. Implementing new practices requires commitment, learning, and adaptation from all involved parties. Research in real-world settings is necessary to understand how change processes develop over time [14]. Successful health-promoting interventions depend on several factors, including the quality of the implementation, clearly defined objectives and target groups, training and support and adaptation to local environments [15]. This article focuses on exploring how physically active learning can become an integrated part of the daily school routine. It addresses various challenges that may arise during the

implementation phase and evaluates factors that can either promote or prevent successful implementation. The article also looks at the importance of engagement and collaboration from all involved parties to succeed in the introduction of new measures and points out the importance of conducting research in authentic environments to understand how change processes develop over time. The following research question was formulated:

How do school management and teachers respond to the implementation process of physically active learning, and what barriers and driving forces affect this process?

The research question aims to uncover the reactions from these groups involved in the implementation process of Physically Active Learning as a new pedagogical method. School management play an important role in policymaking and resource allocation, and their leadership is critical for setting the tone and, to a great extent, the pace of the implementation process. Teachers are on the front lines. They are the ones that have direct interaction with pupils, and integrating new activities into their daily teaching routines requires acceptance. The research question also seeks to identify barriers and driving forces that may influence the school management and teachers' responses. Identifying these elements can provide valuable insights into the challenges these schools may face.

2. Theoretical perspectives
Implementing new programs or educational approaches in schools requires thorough planning, and support from all involved parties. A significant barrier that has been identified is the teachers' unfamiliarity with PAL and how to effectively incorporate it into the classroom setting [2]. Before the implementation process begins, the school should choose a program or approach supported by solid research. Appropriate training and coaching that focuses on the new competence creates confidence among employees and should therefore be emphasized to ensure successful implementation [16]. This training and support to implement the new program may include workshops, guidance, and access to resources and materials [17].
The school management must engage in the implementation process and create a supportive learning environment for everyone involved [18]. Through adequate management the school leadership can facilitate the development of a common practice by creating unified guidelines that everybody must adhere to. An important element is setting up systematic sharing of experiences where teams can discuss and prevent differences in the quality of their work. It is important to be aware that differences within a school may be greater than differences between schools. School management must focus on eventual internal disparities that can arise during implementation processes [19]. The most important aspect of implementing interventions is to ensure that the changes are adapted to the context in which the intervention will be used [20]. This involves an understanding of local needs, resources, and cultures so that the implementation strategy can be designed accordingly.

3. Methods
This article focuses on the implementation of Physically Active Learning (PAL) and seeks to understand the experiences of teachers and school managements during the implementation process. We conducted semi-structured interviews, collecting data through focus group interviews, and used Thematic Analysis as the method of analysis.

3.1 Semi-structured Interviews
Qualitative interviews are used as a research method because they are suited to understand the participants subjective perceptions of their reality [21]. In our study it involved gathering insights into how school management and teachers experience the process of introducing and implementing PAL as a new pedagogical practice. Focus group interviews as a research method involves meetings between individuals from different walks of life, with varied life experiences, norms, and values, and relationship and context are central elements in the knowledge developed. The context is not insignificant, as the room, the surroundings, and the life situation of both the researcher and the participants will affect the interview situation [22].
We conducted two focus group interviews. One with the school management, consisting of the municipality's school leader and two principals and one with six teachers. We relied on a semi-structured interview guide, developed based on implementation theory principles, in order to highlight essential elements of the implementation process and the study's research question. Such interviews allow participants to elaborate on their responses as they wish, while the interviewer maintains focus on themes that are relevant to the research [21]. Although focus group interviews have advantages, there

are also challenges. The fact that the teachers knew each other could influence their contributions. Varied experiences with coping may also affect what is shared. On the other hand, this familiarity may also have stimulated reflection and thus contributed to high-quality data. It is however still important to be aware, during the process of the data analysis, that only what the participants express is brought forward.

3.2 Thematic analysis

Thematic Analysis was used as the method of analysis because it is a flexible method for identifying, analyzing, and reporting patterns (themes) within data. This allowed us to explore how different participants experience and interpret the implementation process. The data were analyzed through six steps, as suggested by Braun et al. [23].

After becoming familiar with the data, we transcribed everything so that we could immerse ourselves in the data by reading it thoroughly, taking notes, highlighting text, and writing in the margins. In the next step, we looked for meaning and patterns and created the initial codes, and a preliminary list of ideas and thoughts about the themes we had seen in the data. We coded the data by identifying aspects of the data that appeared interesting to analyze. We worked through the data and identified interesting aspects of each interview. We also copied relevant quotes from the various interviews into a separate document dedicated to a specific code.

In following step, we searched for overarching themes and grouped the relevant codes under these themes. We considered the relationships between the codes, between the themes, and what were the overarching themes and subthemes. By the end of this phase, we had a completed proposal for overarching themes and subthemes and all excerpts that we had coded under each theme. The fourth step involved critically reviewing the themes, where we assessed whether some should be broken down into more subthemes, whether one or more themes could be fundamentally problematic, and whether the interview statements we had placed under the themes fit there. We also reconsidered whether one or more themes might be problematic and whether the excerpts we had coded under each theme actually fit there. Ultimately, we made a new critical assessment of whether this map we had created accurately reflected the entirety of the data. By the end of this phase, we had a list of themes that aptly described the data in a relevant and striking manner. The next step consisted of defining and naming the themes in a way that we felt captured their essence effectively. For each theme, we identified what the "story" was for that particular theme and checked if it aligned well with the overarching narrative we were telling based on this data. In the final step of the process, we wrote the report. We looked for appropriate quotes that could illustrate the themes and subthemes in a nuanced way. Our goal was to convey a thorough analytical narrative, a compelling story based on our data, and thus we worked to develop an argument that was consistent with our research question and supported by our data analysis.

4. Discussion

Our study revealed several challenges during the implementation phase. An identified barrier was resistance to change, especially from teachers who may feel overwhelmed by new demands regarding their teaching methods and time to familiarize themselves with a new pedagogical practice. Teachers report that they barely have time for the daily tasks required, and that the last thing they need is new initiatives without being given extra time. This resistance is often intensified by a lack of adequate facilities and financial resources, making it difficult to realistically integrate new teaching methods on a daily basis. Insufficient training for teachers was also mentioned as a barrier, indicating a need for more extended training that provide teachers with the necessary skills and knowledge to implement PAL in an appropriate manner.

We also identified several driving forces that contribute to the chances of successful implementation. Teachers see PAL as a good alternative and four of them reported that the method helped them create a better learning environment, accommodating all students, both the academically weak and strong. They stated that the method helped them to better integrate pupils with behavioral issues and agreed that it did not take long before PAL became a natural part of their daily routine. Increased motivation and engagement from pupils in classes where PAL has been successfully integrated suggest that the pupils themselves can be powerful supporters for change. This along with positive feedback from parents, have further strengthened the support for PAL in these schools.

In line with previous research, this study demonstrates that school management play a critical role in promoting and supporting the implementation process of PAL. This includes responsibility for resource distribution, where the management must ensure that there are sufficient resources, such as time, space, and equipment to conduct PAL activities. Training and support for teachers are also essential, in order to facilitate their work during the process. The management we interviewed stated that facilitating

is not always easy and that the process requires not only time and money, but also patience due to a lack of experience and knowledge regarding the new teaching method.

Based on these findings, we formulated several suggestions that can improve the implementation of PAL. There is a clear need for targeted training and continuous professional development for teachers to ensure that they are well prepared to integrate PAL methods into their lesson planning. It is also important to have access to expertise, in order to get help that will ensure progress, support, and continuity during the process. It is equally relevant to make necessary improvements regarding the physical infrastructure in schools so that it becomes natural for teachers to base their teaching activities on physically active learning methods. School management and teachers emphasize the importance of management working to integrate PAL into the school's overall educational strategy and culture, including creating enthusiasm and recognition around the PAL method and conducting evaluations and any necessary adjustments to ensure that they achieve the desired goals. This must be adjusted based on feedback from teachers and results, meaning that a comprehensive engagement from the school's management is crucial for ensuring a successful and sustainable implementation of PAL in schools.

5. Conclusion

To succeed in implementing Physical Active Learning (PAL), it is fundamental that the school management designs a plan that considers potential resistance from teachers and existing resource constraints. This work will be decisive in creating an environment that encourages innovative teaching methods. A good implementation process requires a leadership that promotes a teaching environment where PAL can thrive, through continuous evaluation and adaptation based on feedback from teachers. PAL should additionally be integrated into the school's overall strategies to ensure a comprehensive and appropriate implementation, making it a part of the daily pedagogical practice.

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