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Implementing positive behaviour intervention and support in Finnish early childhood education and care: leadership team's perspective

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ABSTRACT

The effective implementation of positive behaviour intervention and support (PBIS) requires both organisational and professional change. This means that the whole community including all educators and children commit to shared principles, practices, and structures to create a safe and supportive social climate. In this article, we investigate the initial implementation of the Finnish PBIS ProVaka in eighteen early childhood education and care (ECEC) centres. Our inductive qualitative analysis of longitudinal progress diary data focuses on roles, responsibilities and communication among the ECEC communities. The results show that successful ProVaka development is a matter of successfully expanding the actor network and shared responsibility. The challenges of implementation are related to 1) an equal knowledge base, 2) sufficient concretisation of ProVaka, 3) a balance between theoretically valid and culturally adapted implementation, 4) regulation of motivation and enthusiasm, 5) the constant need for change and stances towards it and 6) the clashes of everyday life realities and implementation. This actor- and communication-focused inductive qualitative study offers new insight into the initial implementation phase of PBIS in Nordic ECEC and can inform the implementation and development of other evidence-based methods in special education.

Introduction

The importance of research-based methods is increasingly emphasised in ECEC. In particular, educators are often uncertain about how to address the challenges of children's social-emotional skills and behaviour. Research highlights the importance of universal approaches that aim to change the culture and ways of teaching in an entire school or ECEC centre, instead of focusing solely on a particular child's challenges (Carr and Horner 2007). However, a method itself does not become effective, but effectiveness is always created through successful and sustained implementation (McIntosh et al. 2016; Plum

2017). Implementation requires changes in both organisational structures and individual and shared ways of working among professionals (Chitiyo and May 2018). From an educator's perspective, the implementation of a research-based model takes place in the relationships and networks of actors in which the model is either made functional and effective or not (Plum 2017).

In this article, we investigate the initial implementation of PBIS in Finnish ECEC. The schoolwide PBIS (Sugai and Horner 2020) is a framework for addressing the social-emotional development of all children, especially those at risk of behavioural challenges, and it has also been applied in ECEC settings (Fox and Hemmeter 2009; Hemmeter et al. 2007). Instead of pointing out the problems of an individual child, educators invest in preventive support for an entire group of children and create shared principles, practices and structures to support all children's behaviour preventively and proactively (Karhu, Heiskanen, and Närhi 2021). PBIS is based on the theories of behavioural science and the principles of applied behaviour analysis, which involve the fundamentals of teaching and supporting behaviour through the modification of antecedents and consequences (Sugai and Horner 2002). Successful PBIS implementation is said to require not only programmatic but also paradigmatic change (Muscott, Mann, and LeBrun 2008), which highlights the importance of the active participation of all ECEC community members (Karhu, Heiskanen, and Närhi 2021).

The implementation steps of ProVaka start with establishing a leadership team that includes ECEC professionals from multiple child groups within an ECEC centres whose responsibilities are daily practices in ECEC. ProVaka leadership team's work can be seen as a collective activity that involves many participants in activities and responsibilities. Since the activity of the ProVaka leadership team is crucial to progress, it needs enough capacity (e.g. necessary training and time for collaboration). Leadership teams guide the definition of behavioural expectations, development of the action plans and ensure high-fidelity implementation and sustenance with the support of external coaching (Karhu, Heiskanen, and Närhi 2021). Changing a communities perspective from an individual child's problem to universal preventive support demands educator's theoretical competence in applying the necessary social-emotional and behavioural support in ECEC.

In this article, our focus is especially on ProVaka leadership team's experiences and the mutual relations of ECEC community members during the initial implementation process. Previous research has convincingly demonstrated the effectiveness of PBIS approaches (Horner, Sugai, and Lewis 2015) and highlighted the success of their initial implementation as one of the most essential aspects to secure a programme's sustainability (Nese et al. 2016). However, the actual process of implementation from an organisational perspective of using qualitative approaches has been less studied (see Nylén et al. 2021; Lindsay 2008; Richards et al. 2014). This perspective is important, as the process of keeping a research-based method 'steady as an evident method that "works"' (Plum 2017, 20) requires significant work from all community members who do not always acknowledge and understand being part of the implementation (see also Fixsen et al. 2009). The process of implementing PBIS or other evidence-based methods in ECEC is never a straightforward process but a fluctuating, dynamic and sometimes challenging one (Plum 2017).

The initial implementation of ProVaka was studied in Finnish ECEC communities, which were the first pilot centres. We conducted a longitudinal inductive qualitative

investigation of how the implementation process was illustrated by ProVaka leadership teams in the longitudinal progress diary. All the pilot project participants were highly motivated and the staff buy-in was high. Participating ECEC centres also achieved sufficient fidelity of ProVaka implementation during the pilot project (see Karhu, Heiskanen, and Närhi 2021), which was also found to predict sustainability and desired child outcomes (Mathews et al. 2013). We answered the following questions:

(1) How was ProVaka development work organised in ECEC communities during the first eighteen months of implementation?
(2) What challenged the work of leadership teams and ECEC communities in the implementation of ProVaka in the first eighteen months?

PBIS as organisational and cultural change

Putting the PBIS approach into practice is an active and collective process, Innovations do not happen passively (Lindsay 2008; Fixsen et al. 2009). In previous research, organisational factors, such as management and sharing a common vision among staff, appeared to be important in sustaining PBIS implementation (Bambara, Nonnemacher, and Kern 2009; McIntosh et al. 2013; Nylén et al. 2021). Practice change requires effort, motivation and commitment of managers and educators (Swalwell and McLean 2021). Committed leadership (Bambara, Nonnemacher, and Kern 2009; McIntosh et al. 2013; Richards et al. 2014) and significant staff buy-in of stakeholders (Richards et al. 2014) are prerequisites for success. McIntosh et al. (2013) described how administrator's support and leadership team functioning were the most important enablers for both initial implementation and sustainability, whereas factors related to staff, practice and parent involvement became important later when the sustainability phase of the implementation was reached.

Furthermore, the importance of working together as a community with clear structures for developmental work and enough time to use it is highlighted as necessary for developing a shared working culture (Bambara, Nonnemacher, and Kern 2009; Goodman-Scott, Hays, and Cholewa 2018). Concerning challenges, teachers confusion and lack of professional development, as well as challenges regarding adapting the ideas of the PBIS to one's own thinking, are identified as possible barriers to success (Gay 2016). Studies conducted at schools indicate that school-related features, such as location in a city (Nese et al. 2016) and the speed of initial implementation (McIntosh et al. 2016), are associated with a greater risk of the abandonment of PBIS.

As one of the few Nordic studies on the barriers and enablers of PBIS implementation, Nylén et al. (2021) studied Swedish PBIS implementation in a primary school environment and described the features that the leadership teams perceived as hindering or enabling the initial implementation. Nylén et al. (2021) pointed out that implementation takes time and effort, and it helps if the team has previous knowledge or experience of the implementation of evidence-based programmes. Well-defined implementation stages and guidance in the programme help leaders with limited previous knowledge. Moreover, in order to succeed, leadership teams need to have enough time and supporting materials and manager's and administration's support.Emotional reinforcement

happens When school personnel's values and aims are met and a shared vision of how to respond to the challenging behaviour becomes a unifying factor, this also reinforces personnel's commitment (Nylén et al. 2021).

Materials and methods

The study took place while the Finnish PBIS in ECEC, ProVaka, was piloted for the first time. During the pilot, twenty ECEC communities took part in the eighteen-month training and coaching programme during which they initiated ProVaka in their ECEC centres. The training and coaching were organised free of charge for ECEC professionals. Participants enrolled in the training programme based on their own interest in and motivation for developing the operational culture of their ECEC centres by starting ProVaka implementation. Before the pilot, there was no previous history of PBIS implementation in Finnish ECEC, but some Finnish municipalities had utilised schoolwide PBIS in their elementary schools for several years.

Setting: Finnish ECEC system

Finnish ECEC centres offer services for zero- to six-year-olds and mandatory pre-primary education (four hours per day) for all children in the year preceding compulsory comprehensive school. In all ECEC services in Finland, teaching, education and care for children are interlinked and organised in one setting. ECEC services are subject to charge, but a family can also be entirely released from payment (in 2017, this was the case for 18% of families). In ECEC groups, the maximum educator – child ratio is 1:7. In each group, at least one-third of educators have ECEC teacher qualifications (three years of higher education), while others have at least three years of vocational education. ECEC teachers are responsible for planning, implementing and evaluating pedagogical practices. When needed, special education teachers and teaching assistants can also be positioned to work in child groups. ECEC managers lead the pedagogical work in the centres and have ECEC teacher qualifications.

In developing the operational culture in Finnish ECEC, the foundations for pedagogical work are established by national legislation (Early Childhood Education Act 2018), curricula for ECEC (Finnish National Agency for Education 2022). A distinctive feature of Finnish ECEC is its high reliance on the independence of municipalities and teachers to implement national regulations. Local ECEC operators (public and private) are obligated to localise national curricula. When implementing ECEC regulations and curricula, ECEC communities and teachers also have great independence in choosing teaching methods and intervention programmes that they find suitable for the children. In national or local curricula, no specific means of teaching are typically indicated, but teacher's responsibilities to adapt pedagogical practices based on the needs, interests and strengths of the children in their groups are emphasised (Finnish National Agency for Education 2022). As a central means of providing inclusive and supportive pedagogical practices to all children, the development of ECEC culture and the shared principle of pedagogical work in the ECEC community are emphasised (FNAE 2022).

Piloting ProVaka

In the ECEC community, ProVaka promotes the development of inclusive education and the use of evidence-based practices. Implementation is based on the strong local capacity to ensure sustainability over time. The main goal of universal support is to create a shift in the mindset of personnel from correcting unwanted behaviour to teaching and reinforcing positive behaviour (see Fox and Hemmeter 2009; Hemmeter et al. 2007). The aim is that in implementation, ECEC communities take ownership when developing their PBIS systems and practices.

The pilot training and coaching programme started with the establishment of a ProVaka leadership team that guided the implementation in the ECEC community and designed strategies to support staff as they started (Karhu, Heiskanen, and Närhi 2021 see also Hemmeter et al. 2007). Leadership teams are typically comprised of educators and the manager of the ECEC centre. One to three members of the leadership team from each ECEC centre participated in two full training days each semester for three semesters. The leadership teams were instructed to meet regularly. One of the team's first tasks was to enhance positive interaction and promote prosocial behaviour by encouraging the use of positive feedback among personnel. Leadership teams developed five or fewer positively stated behavioural expectations based on the ECEC centre-specific values, which were discussed and defined together. These expectations were used to develop concrete positively stated expected behaviours for all spaces and situations in the ECEC centre. ECEC centres followed their own schedules and used teaching methods that they found best suited for the children. All staff members were instructed to add positive feedback to acknowledge the children's success with social behaviour. Leadership teams participated in training and regular external coaching. A trained ProVaka coach visited each ECEC centre approximately once every other month.

Research data

We utilised longitudinal progress diary data ($N = 18$) from ProVaka leadership teams that took part in the training programme in 2018–2019. Progress diaries were a free-form assignment for trainees with the aim of supporting the reflection of leadership teams during the implementation. Leadership teams were instructed to write about the issues they found meaningful while developing ProVaka. No specific content areas or questions were provided in the instructions. The task was also voluntary, in the sense that even if a leadership opted not to complete the diary, they could continue the training. Despite their voluntariness, eighteen of nineteen teams completed the task. Teams were instructed to write the diary when the training programme started. Teams were reminded of the writing task prior to the last training day. Participants uploaded their diaries to the online learning environment Yammer, where they were available for all trainees and trainers to view.

The recruitment of participants to the study took place at the end of the training programme in November 2019, when the possibility of utilising diaries as research data was introduced to the trainees. We reached out to the participants and asked about their willingness to let us use the pre-existing progress diaries as data. When participants

provided their consent, we asked for permission from the municipalities and then informed consent was obtained from the writer of the diary. When asking for permission, we considered the person who sent the file to the online learning environment as the author. Participation was voluntary, and participation in the training programme was not conditional upon permission. The writers were given the possibility of withdrawing from the study at any point. The data were collected and saved in a secure university information system.

Diaries varied in length (variance two to twelve pages per diary; mean seven pages) and in frequency of revisiting the diary (mean three entries). Specifications about the identities of the writers were not requested, as the diaries were considered collective works written by some or all the members of the leadership teams. In total, the eighteen leadership teams that had written in the diaries represented ECEC centres from nine municipalities and three regional areas in Finland. Their ECEC centres had ninety-nine child groups in total (variance from two to nine groups, mean five groups) and more than 2000 children.[1]

Instrumentation and data analysis

We started the analysis using inductive content analysis (Elo and Kyngäs 2008), in which we investigated what the leadership teams illustrated as critical from their perspective as well as initial implementation and continuation of development work. We went through the data and noted the segments of the data in which a writer noted that something was about to become an obstacle to development or required actions be taken to continue the development of ProVaka. Linguistically, critical issues were often illustrated using negations (e.g. 'we have not yet been able to'), certain words (e.g. challenge, difficulty, waning, resistance, unwillingness) and imperatives and comparisons (e.g. 'we need to focus more on'). We examined the data again and systematically compiled all the segments in which these issues were raised. The data segments were categorised based on their content. As a result, six categories of critical issues were identified.

As we were interested in diffusion of ProVaka in ECEC centres, considering all its members, we continued our analysis with an actor-focused inspection with content analysis (Elo and Kyngäs 2008). This phase included reading the diaries from the perspective of who was doing what. First, we listed all the community members who were named in the data. Next, we investigated who played an active role in ProVaka implementation. An active role was defined as having a say or responsibilities in the development process. This could be doing, discussing, supporting, enhancing, promoting or other actions related to the development work. For example, when one leadership team wrote that 'we have to try to figure out what would work for our children', this was categorised as an active role of the leadership team but not as an active role of the children. However, when another leadership team wrote that 'children chose what kind of prize they will receive', this was considered the children's active role. As a result, thirteen actors were identified, which were grouped into four categories based on their roles. Finally, the occurrences, frequencies and networks in a specific progress diary were investigated.

Next, we investigated how the mutual relations of community members were described. The analytical approach was discursive, and we utilised the concept of the subject position, which is a linguistic allocation of situational responsibilities, roles and power as constructed through the use of language (Edwards 2005). Positions are,

therefore, socially constructed illustrations of roles in a particular discursive event (diary) based on the writer's conceptions (Edwards 2005). Again, we investigated who was typically responsible for promoting the development of ProVaka or who was actively participating in developing it. As a result, we present those who had central, supportive or minor responsibilities in the development work in general.

Finally, we were interested in discovering how and to whom information about ProVaka was communicated. We continued the analysis by applying the concept of epistemic position, which is understood as the linguistic allocation of rights, responsibilities and power concerning knowledge in particular (see, for example, Bednarek 2006). We analysed how community members were positioned regarding communication: who was communicating to whom and where the information was received. We illustrated the results by describing epistemic positions and visually presenting communication during ProVaka implementation. The analysis was conducted with Atlas.ti 9 software.

Trustworthiness

The trustworthiness of the study was strengthened by multiple methodological choices. Concerning the naturally occurring nature of the research data, neither instructions for the diaries nor consciousness about the research's use of the texts affected what the participants wrote, which was a focal strength, especially when applying discursive approaches (see, for example, Bowen 2009).

To increase the credibility of the findings, systematic interrater (IR) agreement measures were adopted, which presented the extent of the two researchers agreed in coding (Lombard, Snyder-Duch, and Bracken 2002). IR was calculated following the protocol described by Lombard, Snyder-Duch, and Bracken (2002), including five phases: 1) creating the categorisation, 2) training the researchers to conduct the IR analysis, 3) agreeing with the data segments to be coded, 4) coding the data for IR analysis and 5) calculating the level of IR. The first author created tentative categorisations, which were discussed and developed by all four authors. Next, the first author trained the second author to conduct the IR evaluation and coding. The coding was piloted, test evaluations and calculations of IR were conducted, and an acceptable level of IR was achieved. Cohen's kappa coefficient (actors), Krippendorff's c-alpha binary (challenges) and percent agreement (actors, challenges) were calculated using Atlas.ti 9 software.

For challenges, the IR showed how high the researchers ranked the levels for the pre-set data segments in the same predetermined categories. For the analysis of actors, the first author went through the diaries multiple times and listed all the community members in the data, while the second author marked whether a particular actor was described in a progress diary. For epistemic positions and communication, the first author identified the positions and created a model for communication, while the second author verified this by reviewing the data in detail. Due to the relatively small size of the data, both authors coded all the data independently. After the IR measures were calculated, the researchers discussed coding disagreements and finalised the coding in a shared discussion. As the sum

Table 1. IR agreement calculations.

	Percent agreement	Cohen's kappa coefficient	Krippendorff's c-alpha binary
Actor categories			
Sum of IR	97.7%	K = .95	-
Variance of IR	88.9–100	0.75–1	-
Challenge categories			
Sum of IR	85.9	-	0.88
Variance of IR	74.1–100	-	0.78–1

reliabilities of agreement were≥0.8 and the percent agreement was approaching 90% (see Table 1), we interpreted the IRs as being sufficient (Landis and Koch 1977; Lombard, Snyder-Duch, and Bracken 2002).

Results

Responsibilities and roles of ECEC community members in development work

A ProVaka leadership team's position in development work is central. However, there were variations in how leadership teams positioned community members. In total, leadership teams mentioned thirteen actors who have an active role in development work that are presented in Table 2.

The actors had three positions in ProVaka development work: 1) central ProVaka developers, 2) important supporters and 3) actors challenging the implementation. Simultaneously, in terms of communication, different ProVaka actors acted as: 1) disseminators, 2) receivers, 3) mediators and 4) producers of knowledge. One community member could be allocated to one or more positions. The communication- and information-related positions of the actors are visually presented in Figure 1.

Central ProVaka developers were ProVaka leadership teams, coaches, teams in child groups, and their teachers, who were often mentioned separately as pedagogical leaders of teams. A special position in development work was also built for members of the ProVaka leadership teams who participated in the training for the pilot project. The starting point for working in teams was different for the teams in which all team members received training than for those in which only a part of the leadership team members had participated in the training. As trained members of teams had first-hand knowledge of

Table 2. Actors in progress diaries.

| Actor	Description	Position
ProVaka teams	Team who leads the development in ECEC centre	Central developer
ProVaka coach	Trained coach who regularly meets with ProVaka team	Central developer
Trained staff members	Educators who have participated to ProVaka training	Central developer
Parents	Guardians of children	Central developer/challenging actor
Children	Children in ECEC centres	Central developer/challenging actor
Teams in child groups	Educators from the child groups in ECEC centre	Central developer
PBIS schools and centres	Schools and other ECEC centres applying PBIS	Important supporter
Manager	Manager of an ECEC centre	Central developer
New employees	New educators in staff while ProVaka is developed	Challenging actor
Other staff members	Other than educators, such as cleaning or maintenance	Challenging actor
ProVaka trainers	Researchers who executed the ProVaka training	Important supporter
Higher administration	Higher administration of ECEC in a municipality	Important supporter
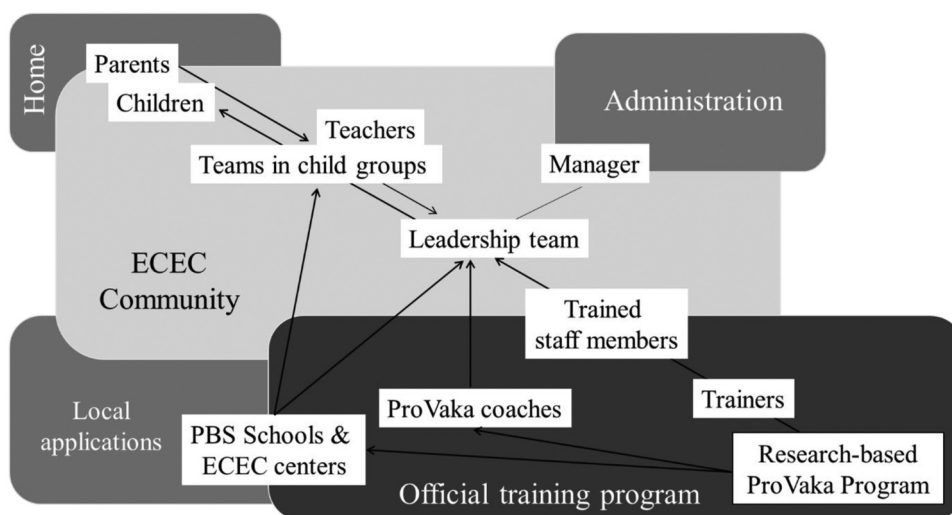
Figure 1. Illustration of the organisation and communication of ProVaka development work.

ProVaka's theoretical base, the teams with all trained members shared the same knowledge. Concerning communication, central ProVaka developers were mediator-decision-makers who received information from multiple sources and had the responsibility to communicate it further, typically simultaneously modifying it to fit culturally into a specific context. This mediation happened among central developers and coaches in such a way that the members of a leadership team who had participated in training mediated information for other members of the team. Moreover, central developers were the ones making decisions about ProVaka development work, which they also communicated further for other.

In addition to the key implementers, a large number of important supporters of implementation were mentioned. These actors did not directly participate in decision-making but still had an important role in the development work. As a means of unofficial support, peer support from other PBIS schools, ECE centres and their staff that had implemented PBIS was vital. Finally, ProVaka trainers and higher municipal administrations were sometimes described as offering structural support for development work. In terms of communication, supporters (especially PBIS schools and trainers) worked as disseminators, while they communicated scientific knowledge or experiences about positive behaviour support to the ECEC community without taking part in decision-making.

Finally, the participation of some actors challenged the implementation. The majority of the leadership teams pondered the participation of parents and sometimes children, in particular the youngest ones and the children with special educational needs, considering how they could be involved in the development in a way that suits everyone individually. The children's positions, however, were somewhat diverse. In some diaries, children were described as central developers when they were actively participating in decision-making about ProVaka practices, while in other diaries, children had only minor positions. Some teams indicated that they had decided to focus on development among professionals first

and that it was not yet time to include children in the development work. Parents and children were, in addition to receiving information from others, able to communicate their own ideas about the development process. Depending on the approach, parents and children were either active decision-makers or receivers when the decisions made by others were communicated to them. A receiver position was also allocated to new employees joining the ECE community, as well as other staff, such as cooks and janitors, who were mentioned when development began to progress to the sustenance phase.

Challenges in implementation from a leadership team's perspective

Sharing an equal and sufficient knowledge base for everyone

Leadership teams described their struggle with their mediator role and communicating ProVaka to their ECEC communities. At the beginning of the development work, leadership teams reported that they and ProVaka coaches played a central role in creating structures for development work and informing others. Typical challenges included failing to build functional communication channels and ensuring enough knowledge about ProVaka for all community members (e.g. 'A memo has gone to every group for each Pro-team gathering. Despite this, some of the staff feel that they do not know enough about ProVaka'). At the same time, leadership teams were just learning about ProVaka and accumulating knowledge and experience, while they were also expected to lead the process successfully and support others. This was considered a challenge by many (e.g. 'the Pro-team members had a too demanding role to inform their own team while they were still unsure about it themselves').

Sufficient concretisation of ProVaka

Educators illustrated the struggle to gain consensus as a community on concrete plans to develop their shared pedagogical practices and what these practices mean in ECEC. Typically, the given tasks from the training programme and guidance of ProVaka coaches directed this process. Challenges typically occurred when educators failed to concretise and verbalise their agreements into pedagogical practices (e.g. 'The matrix was quite painlessly ready, but the instructions themselves were considered many times through'; 'We also ponder the common language of early childhood education (what this word means for you, what it means to me)'). Leadership teams reported the need to find concrete everyday life examples of successful ProVaka implementation, which manifested itself in the spontaneous creation of contacts with previous implementers. In addition to support from coaches, leadership teams leaned on practical examples from PBIS schools that had implemented the model and had gained experience from it. The teams stated that this peer support would have helped the internalisation and commitment had it been provided from the beginning of the project.

Balancing between theoretically valid and culturally adapted implementations

To find a balance between theoretically valid and culturally relevant and acceptable implementation of ProVaka, leadership teams and educators pondered how to adapt ProVaka and its principles without losing its key essence (e.g. 'We wondered whether various token reinforcement systems were too much against ProVaka's way of working, but we ended up with different tokens of the groups'). While describing these

considerations, leadership teams often illustrated the need for deeper internalisation of ProVaka and, consequently, often relied on the help of ProVaka coaches to decide whether the practices were sufficiently in line with theory. In addition to adapting ProVaka to their community's needs, educators also considered adaptations specific to a particular ECEC group or age group (typically toddlers and children with special needs).

Regulation of motivation and enthusiasm

The motivation and commitment of the ECEC community members towards ProVaka fluctuated. It was typical for educators to implement ProVaka in varying degrees, sometimes enthusiastically, but forgetting shared agreements. Leadership teams illustrated how difficulties in understanding ProVaka easily led to difficulties in committing to it. This eventually led to waning implementation. Leadership teams illustrated how they constantly worked on increasing and sustaining the interest and long-lasting commitment of community members. This was often described as 'a new push', supported by a variety of measures (e.g. 'We agreed that the next meeting will review how feedback is important and encourage staff for a new rise'). On the other hand, leadership teams sometimes needed to ensure that things were planned and implemented properly before rushing into action and the next phases of development. Consequently, teams sometimes slowed the pace of development while the ECEC teams were, for example, progressing at different speeds (e.g. 'All the groups were going at a slightly different stage with behavioural expectations. We decided to slow down for a moment').

Understanding the need for change and committing to change

A change in practices and culture is the central aim of ProVaka, which simultaneously creates obstacles to implementation. ProVaka leadership teams described how the implementation of ProVaka required changing the pedagogical practices and culture in ECEC centres repeatedly. This requirement demanded constant reflection and a positive attitude towards professional development, which could feel exhausting. One leadership team wrote, that from their perspective, 'ProVaka is never ready' as the development continues and the change needs to be sustained Moreover, leadership teams described how educators may have differing stances and readiness regarding committing themselves to professional reflection and change. They stated that ProVaka is fundamentally founded on changing the mindset of educators towards children, co-workers and oneself, and that commitment to implementation requires commitment to changing one's own professional practices. This was especially difficult for some and more or less challenging for almost everyone (e.g. 'We noticed how difficult it can be to receive positive feedback').

Clash of everyday life realities and ProVaka implementation

Finally, the clash between everyday life realities and ProVaka implementation often created obstacles. The realities included lack of time, turnover of children and educators, the changing needs of children, exhaustion of educators, exceptional situations in the cycle of the year – such as holidays – and the requirements of multiple overlapping reforms. Leadership teams illustrated that while children grow and learn and new children join groups, ways of teaching social behaviours need to be reconstructed. New employees and substitute staff members caused staff

turnover, requiring new training, orientation and agreements regarding ProVaka. As the most recurring challenge, due to the exceptional ECEC arrangements during summer and the start of the new school year, implementation easily waned during summertime.

Discussion

We investigated the initial implementation of ProVaka, a Finnish application of PBIS in ECEC, as a longitudinal process. We analysed the positions of different ECEC community members regarding their roles and responsibilities in development work, simultaneously modelling communication among different actors. Finally, we identified the issues that challenged the implementation. The results illustrate that ProVaka actors were central developers, important supporters and those whose participation challenged the implementation. Moreover, in terms of communication, ECEC community members acted as mediators, decision-makers, disseminators and receivers. Finally, we identified six challenges: 1) sharing a sufficient knowledge base for everyone, 2) concretisation of ProVaka, 3) balancing between theoretically valid and culturally adapted implementation, 4) regulation of motivation and enthusiasm, 5) understanding the need for change and committing to change and 6) clash of everyday life realities and ProVaka implementation.

According to the results, successful ProVaka development is a matter of organisation, knowledge, commitment, adaptation and action (see also Nylén et al. 2021). Development is done as a community, but successful initial implementation requires active input from every member of the community (see also Carter, Van Norman, and Tredwell 2011; Nylén et al. 2021). In this work, knowledge and commitment are strongly interlinked, as they are prerequisites for long-term implementation and, ultimately, for ProVaka's establishment as part of the operating culture (see also Carter, Van Norman, and Tredwell 2011; Nylén et al. 2021). The importance of direct information is also emphasised in solving challenges, in which case ECEC communities often look for routes to obtain direct and experiential information about ProVaka by relying, for example, on peer support from those who have previously implemented PBIS. However, this comes with both benefits and potential dangers, as solid research-based implementation is important for the efficacy of intervention. As the participants in this study successfully achieved high implementation fidelity, their approach to combining peer support and scientific knowledge can be seen as successful.

Our longitudinal data show that the development work is not straightforward but includes stages of enthusiasm and waning when ProVaka is implemented in the changing situations of ECEC by various professionals. As a result, the network implementing ProVaka is constantly changing. A key task is to ensure the leadership team's capacity to maintain development work and support the ECEC community in implementation (Nese et al. 2016). In this work, different capabilities of educator's challenge leadership teams, as personnel have different abilities and readiness to reflect their own pedagogical actions and to develop them. Leadership teams need to balance everyday life realities and theory, while they simultaneously maintain operations in changing everyday life situations and interpret ProVaka's theoretical basis from the perspective of their unique context. This can be seen as the creation of ProVaka's ecological validity (see Knoster 2018).

Study limitations

This study has some limitations. The number of participating ECEC centres and the research data were relatively limited but covered all but one of the leadership teams involved in the pilot project. The diary data describe the development work from the point of view of their writers and are not applicable to evaluating what actually happened in ECEC centres. Both of these limitations were carefully taken into account when designing the study methodology and interpreting the results. Concerning the transferability of the findings to other contexts, the Finnish ECEC system has unique characteristics that need to be considered when evaluating the results. The participants in this study had experiences and habits of developing their ECEC community cultures. However, the Finnish ECEC curriculum provides a relatively broad framework for pedagogical activities and allows teachers autonomy to choose working methods, which could also have been a challenge when teachers were instructed to change the way they worked. As all educators are getting accustomed to teamwork as an inherent part of Finnish ECEC, this was not a new phenomenon for participants in the Finnish context, yet it might be in other contexts. Teachers were also used to acting as pedagogical leaders on their own teams in child groups, which might have made it easier for them to take the role of leader in the development work as a member of the leadership team.

Conclusions and future direction

This study provides a novel perspective on the implementation of PBIS in ECEC and can also be used in future development work internationally. Regarding the future development of ProVaka, the findings illustrate how information passes through many mediators and how everyone does not have direct access to information about ProVaka but relies on second-hand knowledge. To maintain solid foundations for implementation, actors must have a strong theoretical basis for PBIS. Combined with this, experiential peer support-based knowledge can increase the motivation of actors and make the implementation of the model more concrete and accessible. For this reason, it will be important to ensure that a greater proportion of actors have training and that peer support is provided in an organised manner. In the ProVaka pilot, the coaches implemented PBIS themselves, which enabled a combination of theoretical and practical knowledge about ProVaka implementation – a combination that can be recommended. The ultimate challenge in implementation is long-term sustainability. An active and committed network of actors is needed – a network that works together, takes responsibility and changes both at the level of the organisation and at the level of the individual professional.

Note

1. We have estimated the number of children based on the fact that a typical child group in Finnish ECEC includes twenty-one children (Early Childhood Education Act 2018).

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