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Seven Facets of the Facilitator Role in Co-Creation with Children: Insights from a Project in Danish Kindergartens

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Abstract. User participation in design events is pivotal to Participatory Design and Co-Creation. For such participation to be effective and valuable, it must be carefully facilitated. While much research investigates the conditions for participation in general, less is concerned with the specific role of the facilitator. This study investigates the facets of the facilitator role in co-creation with children aged 3-6. Empirically, the study is based on interviews with facilitators in a project where children in Danish kindergartens were facilitated in the co-creation of a digital photo book aimed to increase their awareness of electricity consumption. Through a two-stage card-sorting analysis, we identified seven facets of the facilitator role and six groups of attributes that formed these facets. We contribute four findings: First, we describe and discuss the seven identified facets. Second, we point out differences in the facilitation of children vs. adults. Third, we discuss how the facets differ in temporal scope. Fourth, a distinct feature of our data is the co-presence of multiple facilitators and, thus, the presence of facets that concern facilitation as a collaborative activity.

Keywords: Facilitation, Co-Creation, Children, Participation.

1 Introduction

Children are not just inheriting the world; they are active in creating it. Like adults, children must learn to act sustainably for us to succeed in the green transition. In this study, we take a co-creation approach to this learning process. Co-creation with children [1, 2] involves that adults facilitate children in contemplating and acting creatively on a specified issue. It differs from co-creation with adults by attending to the needs and prerequisites specific to children, such as how their developmental stage determines their capacity for thinking conceptually about, for example, sustainability. It also differs from co-design, which is about designers and users collaborating across the design process. Co-creation is broader; it refers to "any act of collective creativity" [3].

Co-creation hinges on facilitation. It is through facilitation that co-creation tools and artifacts are enacted and become concrete experiences for the participants [4]. In our empirical setting, it is a dedicated municipal employee and the kindergarten staff who

provide the facilitation. Their overarching move is to frame the co-creation activity as the joint creation of a book with photos of electricity-consuming objects and situations from the children's everyday life. This framing facilitates the children in engaging with the more abstract notions of electricity and sustainability through concrete action. However, the overarching framing must be communicated and reinforced through a range of instructions, explanations, and other supportive moves. In performing these moves, the municipal employee and kindergarten staff enact the facilitator role [5]. This study investigates the facets of this role and, thereby, seeks to answer the research question: *What are the facets of the facilitator role when co-creating with children?*

2 Related Work

To situate our analysis of facilitation, we draw on existing co-creation and participatory design (PD) research. User participation in design events is pivotal to PD [6–8] and co-creation [3, 9]. While this participation must be carefully facilitated, the facilitator role has not yet been adequately understood, though it is being studied [4, 5, 10, 11]. In one of these studies, Dahl & Sharma [5] identify six facets of the facilitator role, providing a structured account of how facilitators support, guide, and scaffold participation in PD activities. The six facets are the trust builder, the enabler, the inquirer, the direction setter, the value provider, and the user's advocate. For example, the enabler supplies the means for the participating users to express their ideas and reservations, and the direction setter keeps the activities on a course useful to the project [5]. Another study of the facilitator role is Carcani & Stigberg's [11] identification of four facilitator categories: the domain expert, the user expert, the PD expert, and the assistant facilitator. They often work together and, thus, combine their individual competencies with their relations to other facilitators, making contributions to different parts of the design process [11]. A feature shared by the studies mentioned above is, however, their focus on facilitating adult participants. Designing with children as participants is different [8, 12, 13]. As a result, the facilitator role must be reconsidered and adapted. Methods to engage children in co-creation include play-based design [14], cooperative inquiry [15], and material play [2]. These methods emphasize the PD pillars of empowerment [16] and trust [1, 13]. At the same time, Ponizovsky-Bergelson et. al. [17] outline how the power dynamics in child-adult interactions can challenge these PD pillars and, thereby, the children's participation. To overcome such barriers, the facilitator must be especially sensitive and encouraging in interactions with children [17].

3 Method

This study explores the facilitator role when facilitating children aged 3-6 years in co-creation. To accomplish this, the authors analyze retrospective interviews with the facilitators of a series of co-creation events in Danish municipal kindergartens. Access to the research setting was obtained through the relation to a municipality as a joint partner in a broader research project. We used that collaboration to get in contact with a facilitating municipal employee who was experienced in conducting co-creation sessions

with children and worked closely with municipal kindergartens. We joined two co-creation events in different kindergartens. Themed around electricity, the events concerned the development of a digital photo book. Using iPads, the children would take photos of electricity-consuming artifacts from their daily lives and save them in the book. Each event lasted about an hour and involved a group of 5-10 children. Multiple facilitators were involved as the municipal employee would work with 1-2 kindergarten staff members per event. The events consisted of activities in the full group and in smaller breakout groups of 2-4 children with a facilitating adult, being either the municipal employee, a kindergarten staff member, or on occasion the first author.

Our data consists of retrospective interviews with three facilitators after the co-creation events. Each interview lasted 15-30 minutes and followed a short, semi-structured interview guide. Two interviews took place in person, one via videocall. All three interviews were audio-recorded and transcribed, with the respondents' consent. The interviews concerned the informants' experiences and considerations as facilitators in the co-creation events. The interviews were supplemented with the first authors' field notes from observing the events. The observations were done in an observer-as-participant role [18], where the author participated as co-facilitator in selected activities while primarily focusing on observation. The field notes served to contextualize the interviews, rather than as primary empirical material. The research was IRB approved to ensure the ethical integrity of our work.

Table 1. The six attributes resulting from the first stage of the card sorting

Attribute	Description	Number of cards
Facilitated	Cards related to the needs and requirements of the facilitated participants	53
Facilitators	Cards related to the necessary competencies and aspects of being a facilitator	56
Activity facilitation	Cards related to the facilitation of the activity	13
Planning	Cards related to the planning, considerations, and activities prior to the facilitated event	35
Facilitation space	Cards related to the experienced facilitation space and the prerequisites for its existence	25
Artifact/Activity	Cards related to artifacts or the activity in an objective sense	15

The authors conducted the analysis in collaboration. First, all three authors coded the three interview transcripts inductively for descriptive evidence of facilitation. Because the interviews were the facilitators' reflections on what it entailed to be a facilitator, the data reflected attributes, competencies, and activities associated with facilitation, rather than predefined facilitation facets. Second, the authors met to discuss their codes and reach a shared understanding of them. Third, two of the authors performed a digital open card sort of the inductively generated codes [19, 20]. For this card sort, the codes were copied onto individual cards in a Miro board, resulting in 130 cards. These cards were sorted into groups representing different attributes fundamental to the

facilitation space. Some cards covered multiple attributes and were duplicated, with the copies assigned to the different attributes covered by the card. After duplication, there were 197 cards sorted into six attribute groups, see Table 1. Fourth, the cards were re-sorted. In this resorting, we focused on how the card contents related to the facilitation of practical co-creation events. Table 2 shows the seven facets of facilitation resulting from the resorting. Fifth, the cards were traced back to the corresponding interview excerpts to deepen the analysis and develop the final descriptions of the facets [20].

4 Results

Our analysis identified seven facets of the facilitator role and the six groups of attributes that formed them, see Table 2. The table provides definitions of the facets and gives the percentage distribution of the attributes. The analysis combines insights about the practical facilitation of children in co-creation events with attributes about the fundamental features of the facilitation space.

Table 2. The seven facets of the facilitator role

Facet	Description	Attribute distribution
Enabler	Enabling participation by matching participants with activities and framing the activities to support and protect the participants.	Facilitated: 43% Facilitator: 8% Activity Facilitation: 10% Planning: 26% Facilitation Space: 8% Activity/Artifact: 5%
Advocate	Advocating for the participants and their needs, if/when/where they fail to advocate for themselves during the preparation and execution of the activity.	Facilitated: 45% Facilitator: 10% Activity Facilitation: 3% Planning: 24% Facilitation Space: 7% Activity/Artifact: 10%
Mentor	Mentoring the participants in developing capabilities that reach beyond the timeframe of the co-creation event.	Facilitated: 49% Facilitator: 25% Activity Facilitation: 5% Planning: 5% Facilitation Space: 5% Activity/Artifact: 9%
Guide	Guiding and supporting the participants during the activity with the purpose of ensuring the completion of the event.	Facilitated: 27% Facilitator: 32% Activity Facilitation: 11% Planning: 5% Facilitation Space: 8% Activity/Artifact: 16%

Facet	Description	Attribute distribution
Delegator	Delegating responsibilities among the facilitators prior to the event, such that resource needs are met, competences are utilized, and everyone knows who should do what and when.	Facilitated: 7% Facilitator: 53% Activity Facilitation: 7% Planning: 20% Facilitation Space: 13% Activity/Artifact: 0%
Organizer	Supporting coordination and organizing among facilitators through a shared, situated understanding of the co-creation event.	Facilitated: 16% Facilitator: 45% Activity Facilitation: 6% Planning: 19% Facilitation Space: 13% Activity/Artifact: 0%
Transitioner	Supporting other facilitators in transitioning among facilitation facets during the co-creation event.	Facilitated: 12% Facilitator: 44% Activity Facilitation: 6% Planning: 15% Facilitation Space: 15% Activity/Artifact: 9%

4.1 Enabler

The Enabler facet focuses on enabling participation by matching participants with event activities and by fitting the event to the participants, thereby ensuring their psychological safety and trust. This facet is represented by a total of 61 cards primarily from the Facilitated (43%) and Planning (26%) attributes, highlighting its focus on both preparation and execution. Regarding the execution of the event, the Enabler supported the children in feeling safe in the group to enable their agency. Another Enabler task was balancing the best interests of the group and the individual, setting clear boundaries that allowed the children to self-regulate their participation, for example by allowing children who got overwhelmed or bored to exit the activity. Because co-creation requires participation, it was central to the event preparations to minimize the risk of children withdrawing from the activities. An informant explained: “It is about finding children who are about equal in their development, so we can challenge them within their zone of proximal development. This way, everyone gets something from the activity.” By matching the children with one another and with the event, the Enabler helped ensure that the children had a similar starting point. This enabled the children to participate in and gain from the co-creation process and reduced the risk of children withdrawing from the activity. The Enabler also emphasized the social makeup of the group of children, highlighting safe relationships and healthy social dynamics: “Yes, we look quite a bit at where they are, developmentally, and what their relationships are with one another. If they feel safe with the ones they are with, then it helps the activity and play.”

4.2 Advocate

The Advocate focuses on advocating for the participants during the planning and execution of the co-creation event, either by supporting them in advocating for themselves

or, if necessary, by advocating for them. This facet consists of 29 cards, mainly from the Facilitated (45%) and Planning (24%) attributes. The municipal facilitator provided an example of the Advocate during planning: "There are so many forms of expression. This is where the kindergarten staff provides a lot of knowledge because they know the child from their daily interactions: How does this child find it meaningful to express itself? There, they can contribute to what we arrive at, in the planning." The kindergarten staff influenced the central design artifact – the digital photo book – by advocating the children's need for multiple ways of expressing themselves in the co-creation process. This highlighted how the Advocate, like the Enabler, benefited from being familiar with the children. While the Advocate has merit in single-facilitator scenarios, it was particularly apparent in our study due to its multiple facilitators with different main goals. The municipal facilitator focused on facilitating the event, whereas the kindergarten staff focused on advocating the children's needs. This became evident when our informants described how an activity proved poorly matched with the participants' age: "It was a little hard [for the children] to engage in this activity. It required just a little more. So, we could tell that the activity was probably not well adapted to their age." The kindergarten staff's pre-existing knowledge told them that the issue was not children unwilling to engage, but a poor match between the activity and the children's abilities, allowing the kindergarten staff to advocate for the children during the event.

4.3 Mentor

The Mentor focuses on mentoring the participants in their development of capabilities beyond the timeframe of the co-creation event, that is, on mentoring their long-term growth. This facet consists of 55 cards, predominantly from the Facilitated (49%) and Facilitator (25%) attributes. It focuses on providing active support, mentoring in the moment for the benefit of long-term development. The Mentor included things like supporting social development and fostering independence and self-confidence in the children by creating opportunities for them to challenge themselves and experience positive interactions. One of the facilitators from the kindergarten described their role during the event as being a role model for the children and "being curious with the children" while also being a source of safety as a familiar adult. To foster self-confidence and independence in the children, the kindergarten staff were first demonstrating "and then otherwise walking next to the children", to provide support without controlling the children in their design explorations. Another example of how the facilitators worked to empower the children and support their development was in how they aimed to foster interaction among the children: "This is where we really want to see some child-to-child learning. […]. If you know this, why do I have to show you? Why are you not the one showing it to a friend, instead of the adult?" This way, the facilitators tell the children that they trust them, thereby supporting the children in developing their capabilities and self-efficacy in ways that reach beyond the timeframe of their participation in the co-creation event.

4.4 Guide

The Guide focuses strictly on supporting and guiding participation toward the successful completion of the co-creation event. Consisting of 37 cards, the Guide's main attributes are the Facilitator (32%) and Facilitated (27%). Concrete examples of the

Guide supporting the participants were in helping them reach conclusions necessary to progress on an activity and in learning to use an required artifact. An informant highlighted the importance of providing guidance: “To begin with, we were a bit controlling […] because the app was a bit complicated. You had to press the right things and such.” If the children could not navigate the tool effectively, they could not participate effectively, hence the need for the Guide to help them. However, to guide the children in acquiring the skills needed for the activity, the facilitator must have those skills and be able to communicate them. A facilitator described how they felt a little outstripped by the children’s ability to work with the digital elements of the activity, ascribing it to them being more digitally minded. While the children’s own abilities compensated in this case, the example still illustrates the need for event-relevant skills and knowledge to serve as a Guide.

4.5 Delegator

The Delegator focuses on ensuring the practical performance of the event through the delegation of tasks and responsibilities and by sourcing needed resources. This facet consists of a total of 30 cards and is mainly rooted in the Facilitator attribute (53%). With the Planning attribute accounting for another 20%, this facet is also preparatory in nature. The Delegator facet involved how multiple co-present facilitators worked together during the event. A kindergarten facilitator described how they initially sat and “almost observed the children and needed to figure out what everything was about. Then, when we went out in the smaller groups, it was me who took over managing my small group”. This division of tasks was pre-planned. That is, it was pre-planned that the kindergarten facilitators started as observers, like the children, while the municipal employee led everyone through the initial demonstrations, after which all the facilitators took the lead in a smaller group. This delegation of tasks and responsibilities supported the performance of the event by minimizing the risk of confusion and allowing the facilitators to be confident in their role throughout the event. Another example of the Delegator was that the iPads used for the co-creation event were supplied by the municipal employee because the kindergartens did not have enough on their own, thus supplying the equipment was delegated to someone with that resource.

4.6 Organizer

The Organizer focuses on coordinating and organizing among the facilitators during the event, through their shared understanding of the situation. It consists of 31 cards, 45% of which from the Facilitator attribute. The Organizer is particularly important in a setting with multiple facilitators who have different goals and outlooks. To perform the event, the facilitators needed to work together and exploit each other’s strengths. The municipal facilitator gave an example: “When we have organized it from the beginning, that is when the kindergarten staff comes into the picture. […] They define which children should work together. We have no knowledge about that, so we [leave that decision to them].” This shows how the municipal employee and kindergarten staff organized themselves during the event, understanding that the kindergarten staff had better prerequisites for grouping the children. In doing so, they relied on being able to read one another and understand when to release or take control of the situation. The municipal facilitator explained that despite his close relationship with the

kindergartens, elements such as employee turnover and day-to-day practicalities in the kindergartens meant that he did not always know on arrival who he would be working with. These conditions made the Organizer facet and its focus on clear communication and organizing critical to the success of the co-creation event.

4.7 Transitioner

The Transitioner focuses on supporting facilitators in transitioning among the facilitation facets during the event. It consists of 34 cards with 44% of them from the Facilitator attribute. In their work, the facilitators frequently shifted from one facet to another. These frequent transitions were part of their role as facilitators. The Transitioner is about supporting the facilitators in these transitions. The municipal employee provided an example of this support: "I have talked with them [i.e., the kindergarten staff] about the idea of communicating [with the children] in different ways. Some of the children may struggle with one form of communication. If they get a new way to communicate… It is about giving some of these children an experience of success." Including a wider range of communication methods in the co-creation event was a way of enabling the children in their participation. By initiating this conversation, the municipal facilitator started shifting to the Enabler facet and by identifying additional communication methods, the kindergarten facilitators served as Transitioners helping him make the shift. Relatedly, the kindergarten facilitators described how the municipal facilitator initially demonstrated an activity for them and the children, thereby supporting them in subsequently guiding their own small groups. In this example, the municipal facilitator served as Transitioner by supporting the kindergarten staff in shifting to the Guide facet.

5 Discussion

The previous section presented the facets of the facilitator role when co-creating with children. In the following, we discuss three elements central to these findings: the children as the facilitated participants, the presence of multiple facilitators, and the extended temporal scope.

5.1 Children as the facilitated participants

We set out to explore the facilitators' role with child participants in a co-creation process. As each facet emerged from our data, it became clear how the facilitation of children shapes the facilitator role and its facets. This difference becomes visible when comparing our facets with those identified by Dahl & Sharma's [5]. Two share similar names across the studies: their Enabler and User's Advocate correspond to our Enabler and Advocate. However, while the facets share names, their analytical focus differs. Dahl & Sharma's Enabler centers on the participants as contributors, enabling their ability to express themselves for design purposes [5]. In contrast, our Enabler is concerned with supporting the children's overall ability to participate by matching the circumstances to the children's needs and abilities. A related perspective can be found in Carcani & Stigberg's [11] categories. Based on our descriptions, our Enabler appears similar to the User's Expert [11], a category that specifically is about the participating users. However, taking our research setting into account also reveals similarities with

the Domain Expert [11], described as an expert on the context and setting of a project, with special insights on the user groups. In our research setting, the kindergarten staff function as experts on both the children and the kindergarten context. Elements of both the User's Expert and the Domain Expert can therefore be identified across our Enabler and Advocate facets, as well as in Dahl & Sharma's Enabler and Advocate. Dahl & Sharma restrict their User's Advocate to post-session actions, supporting the participants by advocating for their contributions in the continued design process [5]. Our Advocate includes this aspect but also includes in-session support to advocate children's needs to other facilitators. This suggests that the Enabler and Advocate identified in our children context may also be relevant with adults, but often less visible.

5.2 Multiple facilitators

Another central component to our study is the co-presence of multiple facilitators. This component is also central to Carcani & Stigberg [11], who map how PD processes involve a network of facilitators. They explore how the constellation changes throughout the process, along with the possible interprofessional tensions in such a collaboration. However, they do not explore in depth the practical articulation work involved in the collaboration itself. We identified three facets that concern how co-facilitators coordinate their collaboration and shift among facilitator facets: the Delegator, the Organizer, and the Transitioner. Carcani & Stigberg [11] identify how differing motivations, perspectives, and values cause tension in a facilitator group, thereby showing the value of facets that support facilitators in collaborating. However, it remains a topic for future research to determine how such facets are activated in practice. A potentially relevant study is Dahl & Sharma's [10] study of the skills needed to be an effective facilitator. While Dahl & Sharma [10] frame the six skills they identify (openness, patience, empathy, attentiveness, responsiveness, and adaptiveness) through the PD facilitator's relation to the participants, our facets also require these same skills in the interaction with co-facilitators. Both attentiveness and adaptiveness are relevant to the Organizer facet with its focus on shared, in-situ coordination among facilitators.

5.3 Long-term temporal perspective

The third central component in our findings is the long temporal perspective. It is perhaps unsurprising that developmental support and protection emerges as a central theme in the Facilitated attribute. Nonetheless, the kindergarten setting and the professional responsibilities of our respondents significantly shaped two of our facets: the Mentor and the Guide. While these two facets are related, and may often co-occur, their temporal focus differs. The Guide facet focuses exclusively on the limited time-frame of the co-creation events. The Mentor facet focuses on long-term impact. Studies on temporality exist in both PD [6, 13] and co-creation [1, 2] often focusing on trust building and long-term design projects involving repeated events with the same participants, some of them children [2, 13]. The Mentor's long temporal perspective differs from these studies because the kindergarten staff could not disconnect from their professional responsibilities when acting as facilitators in the co-creation event. Developmental perspectives on child participants exist in the literature, and Beeson [2] provides an example through material play in co-creation. This work shows how playful exploration can foster creativity, perspective, and practical skills as children grow up. Still, we find that

making explicit the developmental support work involved in facilitating children provides further insight into the temporal scope of the facilitator role in the context of co-creating with children.

6 Conclusion

In this study, we explored the nature of the facilitator role when facilitating co-creation with children. From our analysis, we identified seven facets, each with its separate focus in the facilitation. Our findings suggest that the facilitator role, when facilitating children, can benefit from the influence of a developmental perspective. We contrast our findings with existing literature on the facilitator role, structured by three key elements in our findings: children as participants, co-presence of facilitators, and temporal scope. By foregrounding these key elements, we extend the existing understanding of the facilitator role in PD and co-creation literature. However, we acknowledge that our study is limited by the small amount of empirical data. As such, further research is needed, to investigate how these facets manifest across different contexts. Additionally, we propose that future work should explore the facilitator role in multi-facilitator constellations and the longer-term impact of facilitation on the participants.

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References

1. Ligthart, M.E.U., Neerincx, M.A., Hindriks, K. V.: It Takes Two: Using Co-creation to Facilitate Child-Robot Co-regulation. ACM Trans. Hum. Robot. Interact. 12, 42 (2023). https://doi.org/10.1145/3593812.
2. Beeson, S.: The chair project: Co-creation through material play. In: Place, Pedagogy and Play: Participation, Design and Research with Children. pp. 180–193. Routledge (2020). https://doi.org/10.4324/9780429023477.
3. Sanders, E.B.-N., Stappers, P.J.: Co-creation and the new landscapes of design. CoDesign. 4, 5–18 (2008). https://doi.org/10.1080/15710880701875068.
4. Light, A., Akama, Y.: The human touch: Participatory practice and the role of facilitation in designing with communities. In: PDC2012: Proceedings of the 12th Participatory Design Conference. pp. 61–70. ACM (2012). https://doi.org/10.1145/2347635.2347645.
5. Dahl, Y., Sharma, K.: Six facets of facilitation: Participatory design facilitators' perspectives on their role and its realization. In: Proceedings of the CHI2022 Conference on Human Factors in Computing Systems. p. 484. ACM (2022). https://doi.org/10.1145/3491102.3502013.

6. Saad-Sulonen, J., Eriksson, E., Halskov, K., Karasti, H., Vines, J.: Unfolding participation over time: temporal lenses in participatory design. CoDesign. 14, 4–16 (2018). https://doi.org/10.1080/15710882.2018.1426773.
7. Simonsen, J., Robertson, T.: Routledge international handbook of participatory design. Routledge, London (2012). https://doi.org/10.4324/9780203108543.
8. Bonsignore, E., Ahn, J., Clegg, T., Guha, M.L., Yip, J.C., Druin, A., Hourcade, J.P.: Embedding participatory design into designs for learning: An untapped interdisciplinary resource? In: CSCL 2013 Conference Proceedings. pp. 549–556. ISLS (2013). https://doi.org/10.13140/2.1.3961.7920.
9. Ind, N., Coates, N.: The meanings of co-creation. European Business Review. 25, 86–95 (2013). https://doi.org/10.1108/09555341311287754.
10. Dahl, Y., Sharma, K., Svanæs, D.: Facilitation skills in participatory design. In: Proceedings of the CHI2025 Conference on Human Factors in Computing Systems. p. 802. ACM (2025). https://doi.org/10.1145/3706598.3713658.
11. Çarçani, K., Stigberg, S.: Reflecting on collaboration in participatory design facilitation. In: Design, User Experience, and Usability. HCII 2023. pp. 66–77. Springer, Cham (2023). https://doi.org/10.1007/978-3-031-35699-5_6.
12. Druin, A.: The role of children in the design of new technology. Behaviour and Information Technology. 21, 1–25 (2002). https://doi.org/10.1080/01449290110108659.
13. Spiel, K., Brulé, E., Frauenberger, C., Bailly, G., Fitzpatrick, G.: Micro-ethics for participatory design with marginalised children. In: PDC '18: Proceedings of the 15th Participatory Design Conference. pp. 1–12. ACM (2018). https://doi.org/10.1145/3210586.3210603.
14. Superti Pantoja, L., Diederich, K., Crawford, L., Corbett, M., Klemm, S., Peterman, K., Currin, F., Hourcade, J.P.: Play-based design: Giving 3- to 4-year-old children a voice in the design process. In: Proceedings of the CHI2020 Conference on Human Factors in Computing Systems. pp. 1–14. ACM (2020). https://doi.org/10.1145/3313831.3376407.
15. Druin, A.: Cooperative Inquiry: Developing new technologies for children with children. In: Proceedings of the CHI1999 Conference on Human Factors in Computing Systems. pp. 1–8. ACM (1999). https://doi.org/10.1145/302979.303166.
16. Iversen, O.S., Smith, R.C., Dindler, C.: Child as protagonist: Expanding the role of children in participatory design. In: IDC 2017 - Proceedings of the 2017 ACM Conference on Interaction Design and Children. pp. 27–37. ACM (2017). https://doi.org/10.1145/3078072.3079725.
17. Ponizovsky-Bergelson, Y., Dayan, Y., Wahle, N., Roer-Strier, D.: A qualitative interview with young children: what encourages or inhibits young children's participation? Int. J. Qual. Methods. 18, 1–9 (2019). https://doi.org/10.1177/1609406919840516.
18. Gold, R.L.: Roles in sociological field observations. Social Forces. 36, 217–223 (1958). https://doi.org/10.2307/2573808.
19. Spencer, D.: Card sorting: Designing usable categories. Rosenfeld, New York (2009).
20. Zimmermann, T.: Card-sorting: From text to themes. Perspectives on Data Science for Software Engineering. 137–141 (2016). https://doi.org/10.1016/B978-0-12-804206-9.00027-1.