

“ In the beginning it was like we had a teacher, but now it is more like we all work together.

## Key factors in facilitating collaborative research with children

A self-determination approach

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### Abstract

User involvement in research has gained increased attention in recent decades. However, there is a lack of studies involving children as co-researchers, and particularly uncertainty regarding how to facilitate this type of collaboration. In this study, we explore children's experiences of being part of a co-creation process in research in light of self-determination theory. By participating in a collaborative research project focusing on empowerment in educational support services, four

girls aged 13–14 were interviewed about their experience as co-researchers. Using thematic analysis, three overarching elements were identified as significant in the co-creation process: (1) a sense of freedom to explore (autonomy); (2) a sense of significant contribution (competence); and (3) a safe social context (relatedness). These findings illuminate factors that promote children's active participation in collaborative processes with adults. Potential challenges are also discussed.

**Keywords:** co-creation, co-production, active participation, empowerment, autonomy

Collaborative research and co-creation processes are central for promoting the democratic development of knowledge between researchers and citizens (Emilson and Johansson 2018; Kellett 2010). Specifically, collaborative research with children has increased in scope in the last couple of decades, but alongside this development, research methods in this field have been criticized for being inflexible and underestimating the power dimensions in play (Horgan 2017; Shamrova and Cummings 2017). Adults are often seen as benign agents, while children are portrayed as passive recipients in need of being protected, and this may prevent opportunities for children's active participation in collaborative relationships (Alderson 2010).

Much of the literature describing children's participation in research, are typologies of involvement (Hart 1992; Matthews 2003; Shier 2001; Sinclair 2004) and methodological approaches to participation using different ways to engage children to collect research data (Barker and Weller 2003; Clark and Moss 2001; Montreuil et al. 2021). Gallacher and Gallagher (2008) argue that these participatory approaches often involve children in processes that aim to regulate them rather than including them as active participants, and thus that it is not the method itself that creates participatory research, but the social relationships involved in the co-production of knowledge. Others, such as Kellett (2011), address the implementation of this concept where the primary objective is to empower children as active researchers. This approach nevertheless emphasizes training children to become more or less independent researchers, in the upper strata in the participation ladder (Hart 1992). However, there is a need to get even closer to the individual and relational factors

that, despite the skewed power relations, liberate children's power of action, capacity and resources in cooperation with adults, to increase children's autonomous voice and reduce the adult's governing influence (Archard and Uniacke 2021).

There is lack of research that describes how to facilitate children's autonomous voice in the context of collaborative relationships and co-creation processes, but self-determination theory (Deci and Ryan 2000) suggests that the interpersonal context (such as that found in collaborative relationships) affects the extent to which individuals are or may be autonomous. The discourses on autonomy reflect both the social conditions that facilitate self-determined decision-making and the preconditions in relation to self-knowledge and self-respect of children (Roessler 2015). Self-determination theory (Deci and Ryan 2000, 2012) is a theoretical framework that deals with various aspects of human motivation and behavioural functioning. Although not typically included in the fields of collaborative processes and co-creation, the theory forms a basis for understanding why individuals have an innate tendency to realize their strengths and resources.

The aim of this study is thus, from the children's perspectives, to explore to what extent self-determination theory (Deci and Ryan 2000) can contribute to understand potential key psychological factors facilitating co-creation processes with children in research. The overall research question is therefore: In light of self-determination theory, what may promote and obstruct children's active participation in collaborative processes with adults?

### **Self-determination theory and its relevance for collaborative research**

At the very core of self-determination theory is a personal experience of volitional control, or autonomy. This is an important part of self-organization and is reflected in an experience of integrity, will and vitality that accompanies self-regulated action (Ryan 1993). When people experience autonomy, they see themselves as initiators of their own activities and their actions as a result of freedom to make their own choices (Deci and Ryan 1985). A higher sense of autonomy is associated with more metacognitive activity and effective effort management and is a central part of being an active participant in the situation as opposed to taking a passive role, where the person often feels powerless. Self-determination theory

is thus not to be confused with independence but refers to the extent to which an individual feels volition to act. (Ryan, Deci, and Grolnick 1995). Autonomy is therefore not about having control over the outcome, but more about a willingness or sense of autonomy in engaging in behaviour (Grolnick et al. 2002).

In addition to the fundamental need for autonomy and the need for an individual experience of control and self-agency, self-determination theory claims that people are more motivated and active when their need for competence is met. The need for competence refers to a perceived opportunity to be able to influence, to experience oneself effectively, and to have a sense of self-confidence and effect in action (Deci and Ryan 2012). This acts as an intrinsic force for learning and development. It is not necessarily about the content of the competence, but the sense of an ability to be effective, to accomplish goals, and to develop knowledge and skills (White 1959).

Although autonomy and competence are seen as the strongest influences on people's inner motivation and drive, Deci and Ryan (1985; 2000) believe that relatedness and a sense of community and belonging also play a fundamental role in people's realization of their intrinsic resources. The need for relatedness stems from a need to care about others and to be cared for, and to be socially included. Humans have an innate social orientation for learning and development and will therefore always seek support from others to feel secure in exploring the world (Bowlby 1977). When these needs for security are met through community and belonging, the person will gain resources for developing exploratory powers, creativity, and energy.

## Method

The empirical material of the current study is derived from a collaborative research project with seven children aged 12–14 years. The project aimed to develop a structured assessment for evaluating child empowerment in school psychology services, with the intention of working towards making it easier for children to feel heard and participating. The children were all girls and were students at the same school. Across eight workshops, the children participated to develop the assessment, facilitate data collection, and reflect on the interpretation of results. At the end of the project, the children were invited to contribute to a focus group interview

about their experiences in this co-creation process, and four of them accepted. This article is based on this interview.

The study was approved by the Norwegian Centre for Research Data, and both the children themselves and their parents gave their consent to participate. There are several ethical considerations in a process where children are included in research, regarding the uneven power relationship, how to facilitate children's expression and foster the authenticity of the children's voices (Montreuil et al. 2021). These considerations are closely related to the core of the study that aims to prevent participation at a superficial level and contribute to a more ethical and quality-assured practice regarding children's participation in research.

The data collection was conducted as a semi-structured focus group interview (Tritter and Landstad 2020) with questions about what was important for the children in the process. The interview lasted approximately 75 minutes and was conducted in familiar premises by the researcher who had initiated the project. The children were asked what they considered important to be asked in the interview in order to investigate their experience of being co-researchers in a research project with adults. They conveyed that it was important to talk about what makes the children continue to be involved in the project, and this question was also discussed during the interview.

### **Thematic analysis and results**

The study was conducted using an abductive approach. The empirical material was systematized and categorized, forming the basis for exploring the results in light of Deci and Ryan's theoretical framework of self-determination theory and how this can contribute to understanding what can promote and inhibit children's active participation. This is a pragmatic approach based on the strengths of both inductive and deductive inferences, moving us empirically to theory and back to empiricism (Fann 1970; Hobbs et al. 1993).

In the analysis process, the procedures for thematic analysis described by Braun and Clarke (2006) were followed. The analysis was conducted in three steps. The first step involved defining the preliminary descriptive categories where themes/quotes that expressed the children's opinions about what had influenced their

participation in the process were highlighted, including what promotes and what limits active participation. The second step was to arrange these quotes into categories according to the activation of motivating forces and the notion of agency behind the participants actively engaging in activities. Nine different themes were highlighted: 1) freedom to think; 2) space to express oneself; 3) role expectations; 4) recognition; 5) meaningful task; 6) lack of information; 7) openness and acceptance; 8) support; and 9) lack of trust. These themes were again divided into three main themes which we have called: (A) freedom to explore; (B) a sense of significant contribution; and (C) a safe social context. In the analysis presented below, the children have been assigned letter codes to protect their anonymity.

### Results and discussion

The findings will be presented and discussed in light of self-determination theory exclusively, but data will not be used in order to falsify or approve the theory (see table 1).

Key components in children's active participation in collaborative meetings with adults			
<b>Component</b>	<b>Freedom to explore</b> (autonomy) The experience of freedom to explore thoughts and ideas and express oneself independently of demands and expectations of having to perform and answer "correctly".	<b>Sense of significant contribution</b> (competence) The experience of having a significant role seeing that there is a real need for their knowledge and contribution to the process.	<b>A safe social context</b> (relatedness) The experience of care and support from other participants in the group, and safe social relationships characterized by openness and acceptance of everyone's contribution.
<b>Elements that promote active participation</b>	Freedom to think and space to express oneself by sharing thoughts and impulses and inspiring each other to further reflection and development of ideas. Engaging in the topic increases creativity and promotes real participation.	Recognition of competence by being heard and taken seriously and experiencing support to believe in their own coping ability. A meaningful task will make it more attractive to invest time and energy in participation.	Openness, acceptance and support promote independence to participate actively with their own opinions and reflections without experiencing pressure from the rest of the group.

Table 1. An overview of the findings in the present study



Key components in children's active participation in collaborative meetings with adults			
<b>Elements that limit active participation</b>	Power-related role expectations between the adult/professional and child can promote the fear of making "mistakes", and thus limit the experience of freedom and the creative process.	Lack of information about goals, meaning and method, as well as an overview of structure, will make it challenging for the participants to conduct energy towards targeted participation.	Lack of trust between the participants can create barriers that reduce the experience of security and thus hinder the children's free expression.

Table 1. An overview of the findings in the present study

### Sense of freedom to explore (autonomy)

The children expressed that they "had learned to figure things out" and "were allowed to discuss things", and they greatly appreciated expressing their own opinions and sharing them with others in the group. This experience can be compared to what Deci and Ryan (2000) describe as the experience of autonomy and freedom to act independently, and to have agency related to one's own functioning related to working with topics and issues together with the other participants. This experience was not related to being allowed to decide on the outcome in the process, as Grolnick and associates (2002) emphasize, but the possibility of having their own free thoughts and reflections on the topic without anyone having to assess, correct or control what is being said. This is about a freedom to engage in the topic and in the collaboration on their own conditions. The children compared this feeling of freedom with what they were used to at school, where the aim often is to find the right answer. One of the children (E) said: "Now we have in a way a little more freedom than at school so that we can say more than just answering the questions". This part of the collaboration process is therefore about creating a space to think freely and explore our own and each other's ideas, thoughts, experiences, and reasoning. This is about integrity and being the initiator of one's own actions, which Deci and Ryan (2000) describe as a basic need and thus a driving factor for active participation in such collaborative processes.

Although the students felt freer in this context than at school, role expectations and the power dimension could disrupt the experience of freedom and limit participation. The children explained how they were used to responding to inquiries from the adults instead of acting on their own initiative, and the children said that they raised their hand because they were used to this from school. One of the children (E) said: “In the beginning it was like we had a teacher, but now it is more like we all work together”, and she explained in this way how the collaboration and sense of freedom developed during the process.

### **Sense of significant contribution (competence)**

Another important factor for the children’s active contribution to the collaboration was their sense of a real need for their knowledge. In this case, the need was related to the researcher falling short with her adult perspective on how children perceive and interpret the various elements of the assessment that were intended for children. Contributing to making a difference was something the children believed was an important aim for the work, and thus it made sense to expend energy and generate action for something that could be important to something or someone. In the context of Deci and Ryan’s (2000) theory of motivation, we see how the perception of opportunity to be able to influence the situation and to experience oneself as effective strengthened the children’s active participation in the collaboration. One of the girls (H) in the research group felt she had a meaningful job where she had an important and significant voice, and that she had been given a new authority that was usually reserved for adults: “When we work on how to get children to talk to an adult and such [theme for the project], you feel that you make a change to other children like... I felt I was like a chief when we learned about children’s rights when they talk to adults and how the adults should make it happen...”. The participant expressed an experience of influence and a confidence that her knowledge is important for other children and clarifying the real need for their contribution was an important motivating factor for their active participation.

The children’s ability to think aloud, explore ideas and contribute actively with their knowledge presupposes that someone listens attentively to what they have to say. The experience of being heard



and taken seriously became an important element, and the children emphasized the adult's reaction to and reception of what they conveyed. Some of these elements were that the adult wrote down what they said, reflected this during the discussion, and encouraged the children to elaborate further on their statements: "When you write it down, we feel that we do more than if you don't ...and if someone says something important you remember it and pick it up again in a way, and you continue to talk about that topic. Then you feel that you contribute more than if you just forget it right away" (M). Through this the children experienced mastery and a recognition of competence that reflected that what they contributed was interesting and useful, and that they were important contributors.

The children perceived themselves as important contributors in the process, but the lack of information in the beginning was initially an inhibiting factor for their ability to utilize their expertise in the collaboration. They expressed how the unknown context made them insecure at first, but that it became easier to express themselves over time. "We have learned more about what we do. Like the first day it was like that... what are we going to do and such, and then you were kind of a teacher to us, but now we know what we are doing and then there is no stress" (H). As the children gained more insight into what this work was about, they experienced greater security and self-confidence so that they could contribute to a greater extent. Relevant information about goals, meaning and method in the beginning was therefore an important component to be able to free them in the collaboration and utilize their resources.

### **The experience of a safe social context (relatedness)**

Although the children felt that the greatest motivating force for participation was to have a context in which to express themselves and a sense of being heard, the experience of a safe social context was a prerequisite for being able to utilize both the free space for action and their competence. In this context, the children found joy in being together as a group and feeling interacted with, and they described what the theory of self-determination calls relatedness (Deci and Ryan, 2000). The experience of caring for others and experiencing that others care about you seems to be a motivating factor in their participation in the collaboration, and one of the children (E) described it as follows: "If there was someone who had an opinion

and if there was someone else who had another, then we agreed and helped each other and such...".

They describe a sense of support and acceptance from the other participants and experienced that they cared about each other and cooperated to solve the tasks. This creates a community where there is acceptance of "mistakes", and they trust each other to share their own thoughts and reflections. One of the children (M) said that: "If one here says wrong and the others start laughing then it's kind of okay because we know each other...". It was an important factor for the children to be confident with each other, that they knew each other well, that there were only girls and few participants in the group. The security of the social context was thus a liberating factor that contributed to the children being able to be open and share thoughts and reflections: "What is important in such a group is that those who are to join the group know each other and are confident in each other so that we do not put people together who do not know each other because then you dare not say anything, and then you just sit and say that you agree with everything" (A). Without this safe framework, there would be a danger that the children would not say what they meant, and instead settle for a majority stance.

## Conclusion

Participatory research with children has become important as an inclusive democratic process in knowledge development, but meaningful participation requires an awareness of factors that create active participants in the interaction process. While research in the field often emphasizes degrees of involvement, methodological activities or strengthening children's researcher competence as part of increased participation, this study takes greater account of the concept of autonomy and looks at the quality of the collaborative relationship between adults and children. In such relationships, less emphasis is placed on the children as independent researchers, but more on how adults and children can complement each other in the collaboration and contribute "equally" in the production of knowledge. Equality in this context is not about having the same amount of power in decision-making situations but having the opportunity to participate with their own opinions and reflections as independent contributions to the collaboration. Nevertheless, questions can

be asked about the extent to which autonomy has been liberated in this context so that children can experience themselves independently of socio-cultural and interpersonal expectations for their own achievement and activity. A relevant question is whether it is the adult repositioning himself as a collaborator or the adult's withdrawal as an instructor into the role of co-creator that promotes a behavioural potential in the children and shapes the self's performance potential and therefore the self's actual performance. The effect will then not be about promoting autonomy and already existing personal values, but about teaching the children a competence through the affective quality of the process that changes from instruction to co-creation. Co-creation then arises in part from being allowed to perform "as you wish" (autonomously), and mainly from allowing oneself to react to the atmosphere of attenuated expectation, subdued hierarchy, and a shift from own achievement to socially shared and collectively intensified affective experience. That is, the emphasis shifts from "being able to do" to being "moved to do", and the ability remains concentrated in the isolated individual. Movement is dispersed across social-relational space and time, producing futures that have not yet been thought, said, or done.

This study shows how self-determination theory can be a significant theoretical framework that helps us identify important features of how we can enhance and facilitate participatory practice. Further studies should investigate whether these factors can be transferred to other research projects that include children as co-researchers or to other arenas that require children's active participation in interaction processes.

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