International Journal of Early Years Education

ISSN: (Print) (Online) Journal homepage: www.tandfonline.com/journals/ciey20

The new (ab)normal: the participation of children attending preschool and elementary school during confinement

Catarina Grande, Joana Vilar & Vera Coelho

To cite this article: Catarina Grande, Joana Vilar & Vera Coelho (13 Aug 2024): The new (ab)normal: the participation of children attending preschool and elementary school during confinement, International Journal of Early Years Education, DOI: 10.1080/09669760.2024.2389825

To link to this article: https://doi.org/10.1080/09669760.2024.2389825

INTERNATIONAL JOURNAL OF EARLY YEARS EDUCATION
https://doi.org/10.1080/09669760.2024.2389825

The new (ab)normal: the participation of children attending preschool and elementary school during confinement

Catarina Grande [a,b], Joana Vilar[a] and Vera Coelho[b,c]

[a]Faculty of Psychology and Educational Sciences, Porto University, Porto, Portugal; [b]Center of Psychology, Porto University, Porto, Portugal; [c]Department of Social and Behavioral Sciences, Research Unit on Human Development and Psychology, University of Maia, Maia, Portugal

ABSTRACT

Humans' participation positively impacts society and individuals, suggesting that children's participation in activities carried out in supportive environments promotes positive health and the development of key capacities. Covid-19 abruptly changed the daily lives of children and their caregivers due to the general duty of home confinement with consequences for participation. This study focused on the participation of children attending preschool and elementary school during Covid-19 confinement in Portugal. Participants (175 caregivers) completed an online survey based on Picture My Participation! (PmP; Imms et al. 2014). Three case studies with children were conducted using PmP. Results showed good levels of participation in daily activities, with the school-aged children participating more (frequency and involvement) than the preschool-aged children; girls were more involved than boys. The caregivers and children had different perceptions of participation, with caregivers justifying these levels based mainly on the children's characteristics, while the children reinforced the importance of the environment in their participation. These results are used to enhance a discussion about different perspectives of participation, highlight the importance of listening to different participants, and emphasise the relevance of the biopsychosocial and transactional perspectives to explain behaviour and human development.

ARTICLE HISTORY
Received 2 August 2022
Accepted 2 August 2024

KEYWORDS
Participation; confinement (Covid-19); preschool; elementary school

Introduction

The International Classification of Function, Disability, and Health (World Health Organization [WHO] 2001) defined participation as involvement in real-life situations. Based on this definition, the concept of participation has been operationalised in terms of two dimensions: frequency and involvement (Granlund 2013; Imms et al. 2017; Maxwell and Granlund 2011). Frequency is defined as the time spent on activities in natural life contexts (Granlund 2013; Imms and Granlund 2014; Imms et al. 2017), while involvement includes intrinsic factors (Granlund 2013; Imms et al. 2017; King 2013) and is related to feelings of well-being and an individual's presence and comfort

CONTACT Catarina Grande cgrande@fpce.up.pt Faculty of Psychology and Educational Sciences, Porto University, Rua Alfredo Allen, 4200-135 Porto, Portugal

Supplemental data for this article can be accessed online at https://doi.org/10.1080/09669760.2024.2389825.

with activities and settings; thus, involvement can be manifested by every child, regardless of age or development status (Granlund 2013; Sjöman, Granlund, and Almqvist 2016), being pivotal for child learning and development (e.g. Movshovich 2014).

In this participation framework, in addition to the need for studying intrinsic factors of the person, the importance of studying the contextual factors in which the activities take place has been emphasised (WHO 2001, 2007; Tonkin et al. 2014). Several studies have highlighted the influence of environmental factors on the participation of children attending preschool and elementary school (Albrecht and Khetani 2016; Anaby et al. 2014; Di Marino et al. 2018; Guichard and Grande 2017). These factors can be classified either as facilitators or barriers to children's participation as they can foster or inhibit participation (WHO 2007). This fits with a transactional perspective of development (Sameroff 2010), highlighting that when addressing children's participation, it is also necessary to consider the mutual influences between the person and the context, moving the focus of the research and intervention from the characteristics and capabilities of the person towards the role of environments and the opportunities they provide, as well as to the dynamic interactions established between them (Coelho 2019; Imms and Green 2020).

The literature on participation reveals positive impacts on society (Matthews 2003; Sinclair and Franklin 2000) and on individuals (Almqvist 2006; King 2004; Larson 2000; Save the Children 2010; Simeonsson et al. 2001), leading to the conviction that participation of children in activities carried out in supportive environments promotes the positive development of health and capabilities (Shonkoff and Phillips 2000) and plays a crucial role in the sense of belonging to those contexts (Mc Manus, Corcoran, and Perry 2008), reinforcing it as a fundamental right (Brown and Guralnick 2012). This right is preserved in several international documents, from which we highlight the document produced during the Convention on the Rights of the Child (United Nations 1989) which promulgated the rights of children in society, and the Salamanca Declaration (UNESCO 1994), which reaffirmed the universal right to education (and to the participation in it), attending to each child's characteristics, interests, capabilities, and educational needs.

Based on these international guidelines, many countries have created measures and laws that enable the development of supportive services that ensure children's participation, mostly in educational settings (Guralnick 2008). In Portugal, participation and inclusion in schools are governed by the Decree-Law 54/2018, from July 6, 2018. This Decree-Law framed educational inclusion as a matter of diversity and removed the need for a diagnosis as a condition for children to have access to additional support measures. Within a multi-tiered system of support model, the actual Portuguese law on child educational inclusion states the need for schools to accommodate and ensure all and every child's participation, regardless of diagnosis, culture, religion, or any other characteristic.

However, even with the regulation of inclusive educational practices, 'the culture of non-participation is still endemic' (Matthews 2003, 264–5). This finding is particularly worrisome since participation allows children to give meaning to their life and constitutes an important part of citizenship. Considering the gap between theory and practice regarding educational inclusion (Correia et al. 2019) and the assumptions of Portuguese legislation, it is therefore important to understand children's participation both from the

caregivers' and children's perspectives. However, the pandemic context abruptly changed the daily lives of children and their caregivers, and play and leisure activities are vital for a child's development, helping to facilitate physical, cognitive, language, and social growth. Even during adversity like a pandemic, play remained crucial, serving as a means of expression, coping, skill development, and social interaction (Blanta, Karathanasi, and Tzonichaki 2023). According to Oliveira, Martins, and Carvalho (2022), the pandemic led to a significant increase in sedentary behaviours among children, such as increased screen-time, while active leisure and play activities declined. This shift towards more sedentary behaviours, especially screen-time, combined with a reduction in physical activity and stimulating activities like play, posed a risk to children's physical and mental well-being. Thus, we sought to characterise Portuguese preschool and elementary school children's participation pattern while confined to home (Decree-Law 2-A/2020, from March 18; Decree-Law 2-B/2020, from April 2; Decree-Law 2-C/2020, from April 17). More specifically, we aimed to identify patterns of frequency and involvement in different daily activities as well as facilitators of and barriers to children's participation, considering both the informal caregivers' and the children's perspectives.

In this sense, and to meet this main goal, two phases were outlined, using an online survey based on Picture My Participation! (PmP; Imms et al. 2014). The first phase, focused on the caregivers' perspectives about child participation, involved the following research questions: (a) In which activities did the children in preschool and elementary school participate more frequently during Covid-19 confinement? (b) Were there differences in child participation – frequency and involvement dimensions – between the children attending preschool and elementary school during the confinement? (c) Were there differences in child participation – frequency and involvement dimensions – considering the children's gender? (d) Were there differences in child participation – frequency and involvement dimensions – between the children with and without learning disabilities? And (e) which factors were considered by caregivers to facilitate or constrain the participation of the preschool and elementary school-aged children during the confinement? The second phase of the study aimed to reveal the children's perceptions about their own participation during the confinement through the Zoom platform.

Method

Study design and participants

Participants

The participants of the first phase of this study were 175 caregivers (159 females) of 189 children, 69 of whom attended preschool and 120 attended elementary school. The data collection occurred during the Covid-19 home confinement period, which started approximately three months before.

The caregivers were aged between 18 and 66 years (M = 39.57, *SD* = 6.43); 152 were mothers, 15 were fathers, five were sisters, one was a grandmother, one was a grandfather, and one was an aunt. Regarding their work situation during the home confinement period, 38 caregivers were working with no changes compared to the pre-confinement period; 70 were working from home; 22 were temporarily laid off; 14 were in a special condition to support the family; 14 were unemployed; one person was retired; and 16

caregivers had other work situations. Concerning their level of education, 15 caregivers had 9 years or less of formal education, 33 had the full basic education (12 years), 96 had a bachelor's degree, 20 had a master's degree, and 11 had a doctoral degree.

Regarding the children the caregivers were caring for, 69 (29 females) were attending preschool and were aged between 3 and 5 years (M = 4.42, *SD* = .58). Of these, one child had a mild learning disability and another a moderate learning disability. The remaining caregivers were caring for children attending elementary school ($n = 120$, 50 females). These elementary school children were aged between 5 and 10 years ($M = 7.90$, $SD = 1.21$). Of these, nine had a mild learning disability, two had a moderate learning disability, and one had a severe learning disability. For the preschool and elementary school children the levels of disability and severity were reported by parents in accordance with what was indicated in each child's individual educational plans.

In the second phase of the study, a convenience sample was gathered by asking the participants of the first phase if they allowed their children to participate in the study. Three children participated: Participant 1 was an 8-year-old boy attending elementary school; participant 2 was a 4-year-old girl attending preschool; and participant 3 was a 5-year-old boy attending preschool. No children with disabilities participated in the second phase of the study.

Measures

PmP (Imms et al. 2014) was used to capture the caregivers' and children's perceptions about the children's participation. This instrument enables one to capture both children's and caregivers' perceptions about the child's participation in three main domains: home, school, and community (Liao et al. 2019; Shi et al. 2020). With separate caregiver and child versions, the measure has been translated and adapted to several countries (e.g. Arvidsson et al. 2021; Balton et al. 2020; Li et al. 2023; Shi et al. 2020). Studies show that to guarantee the measure's cultural adaptation, some pictures should be changed (Shi et al. 2020). The measure has presented adequate content validity, internal consistency, and test-retest reliability, both for children with and without disabilities (e.g. Arvidsson et al. 2019, 2021; Balton et al. 2020; Li et al. 2023; Shi et al. 2020)

For the scope of the present study, both the child and caregiver versions were translated from English to European Portuguese using the forward-only translation with testing method (Maneesriwongul and Dixon 2004). For this, the authors of the original version were contacted and gave their authorisation for the process. The authors of the original version provided the original pictures and items. During the translation and adaptation of the measure for Portugal, and similarly to Shi et al. (2020), there was a need to change some pictures in the Portuguese version to ensure cultural validity. For this, an experienced speech therapist was consulted to ensure the pictures selected were appropriate. The translated versions were then piloted. In this process, four caregivers completed the correspondent measure in the presence of a researcher and one 11-year-old child with no disabilities, and seven children and adolescents aged between 5 and 18 years old diagnosed with cerebral palsy were interviewed, using the children's version. This process showed that it was not necessary to make changes to the original questions apart from the question related to spirituality. As this question was not easily understood during the piloting, this was not included in the present

study. Additionally, the questions related to community settings were also removed because those activities were suspended due to the pandemic confinement.

The PmP caregivers' version includes one questionnaire that collects sociodemographic information; the Ten Questions questionnaire that assesses neurological impairments in children (Mung'ala-Odera et al. 2004); and a list of 20 daily activities about children's frequency of participation, rated on a 4-point scale (1 = Always; 2 = Sometimes; 3 = Not Really; 4 = Never); and children's involvement while attending each daily activity. Involvement is rated with a 3-point scale (1 = Very Involved; 2 = Somewhat Involved; 3 = Minimally Involved). The Cronbach alphas for these rating scale items were adequate (α = .75, α = .93, respectively).

Additionally, the PmP interview asks caregivers to prioritise the three most important activities for their child. In the final section, the caregivers are asked to identify the key barriers and facilitators of the priority activities, coded according to five categories of facilitators/barriers (products and technology, natural environment and human changes to the environment, support and relationships, attitudes and services, systems, and politics). For the present scope, two additional categories were included: attitudes and characteristics of the child and consequences of the pandemic.

The PmP – Child Version (CV) was used to capture the children's perceptions about their own participation in daily activities. The PmP CV is an interview guided by images, using the Talking Mats approach in which items and response options are converted into images to facilitate the conversation with the child (Liao et al. 2019). Like the PmP – Caregiver Version, the CV includes a prioritisation section and a list of 20 daily activities, and the children are asked to assess how often they attend (frequency) each activity using a 4-point scale. They also report their perceived level of involvement. The Cronbach alphas for these rating scale items were acceptable (α = .77, α = .59, respectively).

Procedures

Data collection

Data collection began in June 2020, approximately three months after the beginning of confinement in Portugal due to the Covid-19 pandemic. The caregivers' data were collected by an online questionnaire, via Google Forms, using the PmP – Caregivers Form (Imms et al. 2014). The questionnaire link was disseminated through snowball sampling (Vinuto 2014) and was available for 1 month (from June 27 to July 27, 2020). The children were interviewed with the PmP – CV (Imms et al. 2014) using Zoom. During the interviews, no sound or image was recorded, and the answers were registered by the researcher. The interviews were conducted by the researcher and lasted, on average, 20 min.

Data analysis

To analyze the quantitative data, IBM's SPSS (Version 26) was used. A descriptive analysis of the children's participation was conducted, and t-tests for independent samples were used to compare groups (the children attending preschool vs. the children attending elementary school; girls vs. boys). Cohen's d was calculated and interpreted based on the criteria proposed by Cohen (1988). The Mann-Whitney U test was used to compare the participation of children attending elementary school with learning disabilities (n = 12)

and children attending elementary school without learning disabilities (n = 108). The results were interpreted based on the magnitude of differences between groups, calculated by converting the Z values into r values, using the formula suggested by Rosenthal (1991) and recommended by Field (2015). A deductive content analysis (Elo and Kyngäs 2008), based on the categories proposed by PmP (Imms et al. 2014) and ICF-CY (WHO 2007), was conducted to identify facilitators and barriers to children's participation, perceived by caregivers. Note that the categories proposed by PmP were used during the content analysis. Two investigators coded 20% of the caregivers' responses, having a high level of agreement (90%). To solve disagreements in categorisation, the researchers had a joint discussion. After the codification, the responses related to facilitators and barriers to participation were counted, and a procedure was also used to analyze the questions regarding the prioritisation of activities. Since it was only possible to interview three children, to analyze the data, a case study approach (Ventura 2007) was used by handling every interview independently and posteriorly by comparing the children's answers to the answers of the respective caregiver.

Ethical considerations

Before the data collection of both studies, written informed consent was provided by the adult participants. All APA ethical standards were followed. The participants were informed that their participation was voluntary, and no risks associated with participating were foreseen, in accordance with the General Data Protection Regulation. The participants were informed of all their rights, including the rights to access, correct, cancel, object, and file a complaint to the national authority on data protection if, at any point, they considered there was any illicit treatment of the information provided during their participation. Considering that this study also involved participants who were not able to technically provide informed consent themselves (children under 10 years old), their informed consent was obtained from their legal tutors/parents. Additionally, before data collection, the researchers explained to each child what they were going to ask about, and they communicated to the child that they could decide not to participate.

Results

Participation of children attending preschool and elementary school: caregivers' perspectives

Aiming to understand which activities children in preschool and elementary school were participating in more during the confinement, descriptive statistics were computed (Table 1). Overall, the results showed that, according to the caregivers' perspectives, both the children attending preschool and elementary school participated more frequently in family mealtime, family time, and personal care. More specifically, the activity that children in preschool participated in more during confinement was family mealtime (M = 1.09, *SD* = .33), followed by family time (M = 1.13, *SD* = .38) and personal care (M = 1.28, *SD* = .48). For the elementary school children, the activity with more participation was family time (M = 1.16, *SD* = .41), followed by family mealtime (M = 1.22, *SD* = .48) and personal care (M = 1.43, *SD* = .58). Conversely, the activity in which children

Table 1. Mean levels of frequency and involvement of children attending preschool and elementary school.

	Preschool children		Elementary school children		*t*	Preschool children		Elementary school children		*t*
	Frequency					Involvement				
	M(*SD*)	Min-Max	M(*SD*)	Min-Max		M(*SD*)	Min – Max	M(*SD*)	Min-Max	
Personal care	1.28(.48)	1–3	1.43(.58)	1–3	1.33	1.43(.58)	1–3	1.31(.53)	1–3	1.45
Family mealtime	1.09(.33)	1–3	1.22(.48)	1–3	1.24	1.22(.48)	1–3	1.14(.38)	1–3	1.11
My own health	3.45(.81)	1–4	2.46(.58)	1–3	4.03***	2.46(.58)	1–3	2.04(.62)	1–3	3.09**
Gathering supplies	2.83(1.11)	1–4	2.07(.74)	1–3	.89	2.07(.74)	1–3	2.00(.68)	1–3	.53
Meal preparation	2.57(.882)	1–4	2.05(.69)	1–3	.76	2.05(.69)	1–3	2.00(.71)	1–3	.43
Cleaning at home	2.62(.86)	1–4	2.22(.72)	1–3	2.11*	2.22(.72)	1–3	2.02(.67)	1–3	1.76
Caring for family	2.70(.90)	1–4	2.44(.71)	1–3	−2.12*	2.44(.71)	1–3	2.04(.68)	1–3	2.51*
Caring for animals/pets	2.97(1.00)	1–4	2.10(.80)	1–3	2.24*	2.10(.80)	1–3	1.80(.71)	1–3	2.11*
Family time	1.13(.38)	1–3	1.16(.41)	1–3	-.21	1.16(.41)	1–3	1.22(.44)	1–3	-.92
Organised leisure	2.03(1.08)	1–4	1.55(.71)	1–3	3.02**	1.55(.71)	1–3	1.44(.58)	1–3	1.05
Quiet leisure	1.84(.72)	1–4	1.84(.75)	1–3	2.40*	1.84(.75)	1–3	1.53(.63)	1–3	2.93**
Visit health centre	2.51(1.22)	1–4	1.93(.76)	1–3	1.12	1.93(.76)	1–3	1.90(.74)	1–3	.24
School/ Preschool	1.75(1.08)	1–4	1.38(.61)	1–3	3.20**	1.38(.61)	1–3	1.21(.45)	1–3	1.88^{+}

$^{+}p < .07$. * $p < .05$. ** $p < .01$. *** $p < .01$

participated less was, for both groups, taking care of their own health (M = 3.45, *SD* = .81 and M = 2.26, *SD* = .58, for children in preschool and elementary school, respectively). These activities found similar levels of involvement for both the preschool and elementary school children.

When comparing the levels of participation for both groups, significant differences in the frequency of participation were found. The children in preschool participated significantly less often than the children in elementary school in the following activities: taking care of their own health, cleaning in the home, caring for family, caring for pets, and participating in organised leisure and school/preschool activities (online) activities (Table 1). Moreover, both the children in preschool and elementary school presented similar levels of involvement in most activities, except for taking care of their own health, caring for family and animals, and engaging in quiet leisure, whereas the caregivers of the elementary school children perceived higher levels of involvement of their children. Note that for the activities where both groups participated more frequently (family mealtime, family time, and personal care), no significant differences in levels of involvement were found.

Considering the fairly balanced number of caregivers of girls ($n = 79$) and boys ($n = 110$) in the study, as well as the literature that points to contradictory information about differences in the participation of males and females regarding household activities (e.g. Bonke 2010; Hofferth and Sandberg 2001), with higher levels of participation of males in physical activities (Hofferth and Sandberg 2001; King et al. 2007) and higher levels of participation of females in skill-based, social, and self-improvement activities (King et al.

2007) being reported, differences in participation according to the children's gender were explored in this study. See Table 2.

When comparing the levels of participation for both groups (girls vs. boys) reported by caregivers, significant differences in the frequency of participation were found. The girls participated significantly more often than the boys in the following activities: personal care, meal preparation, and caring for family (Table 2).

Regarding levels of involvement, significant differences were found. The caregivers of girls reported greater levels of involvement than the caregivers of boys in the following activities: personal care, personal health, caring for family, caring for animals/pets, and enjoying quiet leisure time in preschool/school (Table 2).

Participation of children with and without learning disabilities

The caregivers of children without learning disabilities reported a higher frequency of participation in caring for family ($Mdn = 3.00$) than the caregivers of children with learning disabilities ($Mdn = 4.00$), $U = 425.00$, $p = .039$, with a low effect size (r = -.188), and in quiet leisure ($Mdn = 1.00$) than the caregivers of children with learning disabilities ($Mdn = 2.00$), $U = 422.40$, $p = .028$, with a small effect size (r = -.200). Regarding involvement, the caregivers of children without a learning disability reported greater levels of involvement ($Mdn = 1.00$) than the caregivers of children with learning disabilities ($Mdn = 1.45$), $U = 407.50$, $p = .026$, with a small effect size (r = -.203) per the activity 'school' (Table 3).

Caregivers' perceived facilitators and barriers to children's participation

The caregivers were asked to identify the main facilitators and barriers to their child's participation based on seven categories: products and technology; natural environment and human-made changes to the environment; attitudes (external to the child); support and relationships; services, systems, and policies; child's characteristics and attitudes; and consequences of the pandemic. The most reported 'facilitator' was the children's characteristics and attitudes ($f = 97$; e.g. 'Determination'), followed by support and relationships ($f = 71$; e.g. 'The involvement of the family in these activities') and by attitudes ($f = 63$; e.g. 'The parents' posture'). The natural environment and human-made changes to the environment ($f = 9$), pandemic consequences ($f = 10$), and services, systems, and policies ($f = 1$) were also mentioned.

The most often mentioned barrier to participation was the child's characteristics and attitudes ($f = 103$; e.g. 'Lack of motivation'), followed by pandemic consequences ($f = 35$; e.g. 'Strangeness of being home for so long') and attitudes ($f = 27$; e.g. 'Facilitation due to the pandemic'). The caregivers also mentioned the natural environment and human-made changes to the environment ($f = 14$), support and relationships ($f = 6$), products and technology ($f = 5$), and services, systems, and policies ($f = 2$).

Prioritisation of activities: caregivers

The caregivers of children attending preschool prioritised as most important the activities family time (79.91%), family mealtime (62.32%), and school (44.93%).

Table 2. Mean levels of frequency and involvement of boys and girls.

	Girls		Boys		*t*	Girls		Boys		*t*
	Frequency					Involvement				
	M(*SD*)	Min-Max	M(*SD*)	Min-Max		M(*SD*)	Min – Max	M(*SD*)	Min-Max	
Personal care	1.13(.37)	1–3	1.28(.47)	1–3	−2.53**	1.20(.44)	1–3	1.47(.60)	1–3	−3.34***
Family mealtime	1.04(.19)	1–3	1.06(.28)	1–3	-.703	1.14(.42)	1–3	1.19(.42)	1–3	-.866
My own health	3.13(1.03)	1–4	3.08(.98)	1–4	.30	2.00(.57)	1–3	2.27(.66)	1–3	−2.12*
Gathering supplies	2.68(1.09)	1–4	2.76(1.16)	1–4	-.48	1.93(.65)	1–3	2.10(.73)	1–3	−1.38
Meal preparation	2.28(.83)	1–4	2.65(.92)	1–4	−2.87***	1.99(.66)	1–3	2.05(.74)	1–3	-.55
Cleaning at home	2.32(.81)	1–4	2.55(.90)	1–3	−1.84	2.07(.68)	1–4	2.11(.70)	1–3	-.42
Caring for family	2.70(.90)	1–4	3.04 (.93)	1–4	−2.33*	1,98(.61)	1–3	2.29(.75)	1–3	−2.50*
Caring for animals/pets	2.59(1.1)	1–4	2.85(1.02)	1–4	−1.67	1.70(.70)	1–3	2.06(.76)	1–3	−2.66**
Family time	1.14(.35)	1–3	1.14(.37)	1–3	.054	1.15(.36)	1–3	1.23(.46)	1–3	−1.29
Organised leisure	1.85(1.06)	1–3	1.66(.85)	1–3	1.28	1.37(.57)	1–3	1.54(.65)	1–3	−1.80
Quiet leisure	1.59(.63)	1–4	1.75(.74)	1–3	−1.47	1.51(.68)	1–3	1.74(.69)	1–3	−2.32*
Visit health centre	2.38(1.22)	1–4	2.38(1.17)	1–4	-.01	1.93(.75)	1–3	1.89(.74)	1–3	.27
School/Preschool	1.34(.77)	1–3	1.55(.95)	1–3	−1.63	1.17(.38)	1–3	1.34(.60)	1–3	−2.34*

$p < .05$. * $p < .01$**. $p < .001$. ***

Table 3. Participation of children with and without learning disabilities attending elementary school.

	Children With Learning Disabilities	Children Without Learning Disabilities	*Mann-Whitney U (Assymp. Sig. 2-tailed)*	Children With Learning Disabilities	Children Without Learning Disabilities	*Mann-Whitney U (Assymp. Sig. 2-tailed)*
	Frequency			Involvement		
	Mdn	Mdn		Mdn	Mdn	
Personal care	1.00	1.00	536.00	1.00	Table	536.00
Family mealtime	1.00	1.00	624.00	1.00	1.00	605.00
My own health	3.50	3.00	542.00	2.00	2.00	156.50
Gathering supplies	3.50	3.00	560.50	2.00	2.00	269.50
Meal preparation	2.50	2.00	513.00	2.00	2.00	283.00
Cleaning at home	3.00	2.00	549.00	2.00	2.00	338.00
Caring for family	4.00	3.00	425.00 **	2.00	2.00	115.00
Caring for animals/ pets	3.50	2.00	567.00	1.50	2.00	193.00
Family time	1.00	1.00	606.00	1.00	1.00	574.50
Organised leisure	1.50	1.00	572.00	2.00	1.00	464.50
Quiet leisure	2.00	1.00	422.50 **	2.00	1.00	506.50
Visit health centre	2.50	2.00	531.00	2.00	2.00	260.00
School/ Preschool	1.00	1.00	595.00	1.00	1.00	407.50 **

$p < .05$. ** $p < .01$. ***

The caregivers of children attending elementary school prioritised the activities family time (70%), school (42.5%), and personal care (40.83%).

Children's perceptions about their own participation

Three children volunteered (with the approval of their caregivers) to report their own participation. They started by characterising their frequency and involvement in 13 daily activities, and the responses were compared to their caregivers' (Table 4)

The children then decided which activities were most important to them during the confinement, and their answers were compared to their caregivers. Participant 1 chose personal care, quiet leisure, and school, while his caregiver prioritised the activities family time, organised leisure, and school. Participant 2 chose quiet leisure, personal care, and family time, whereas her caregiver chose family time, quiet leisure, and family mealtime. Participant 3 chose school, personal care, and meal preparation, while his caregiver chose family time, outdoor activities, and school.

Finally, the children were asked to identify the main facilitators and barriers to their participation, and their answers were coded into the seven aforementioned categories. The answers were then compared to those given by their caregivers. The categories selected are shown in Table 4. Neither the children nor the caregivers mentioned 'attitudes' as facilitators or barriers to the children's participation. Conversely, all the children mentioned 'natural environment and human-made changes to the environment' and

Table 4. Participation of children attending elementary school.

	Frequency			Involvement		
	Participant 1	Participant 2	Participant 3	Participant 1	Participant 2	Participant 3
Personal care	Always	Always	Sometimes	Very involved	Somewhat involved	Very involved
Family mealtime	Always	Always	Always	Somewhat involved	Very involved	Very involved
My own health	Not really	Not really	Not really	Somewhat involved	Minimally involved	Somewhat involved
Gathering supplies	Sometimes	Not really	Never	Very involved	Very involved	– – – – – – – – –
Meal preparation	Sometimes	Not really	Not really	Somewhat involved	Very involved	– – – – – – – – –
Cleaning at home	Not Really	Never	Not really	Very involved	– – – – – – – – –	Somewhat involved
Caring for family	Sometimes	Sometimes	Never	Very involved	Very involved	– – – – – – – – –
Caring for animals/ pets	Not really	Never	Never	Very involved	– – – – – – – – –	– – – – – – – – –
Family time	Always	Not really	Always	Very involved	Very involved	Very involved
Organised leisure	Always	Never	Never	Very involved	– – – – – – – – –	– – – – – – – – –
Quiet leisure	Sometimes	Always	Always	Very involved	Very involved	Very involved
Visit health centre	Not really	Never	Never	Very involved	– – – – – – – – –	– – – – – – – – –
School/Preschool	Always	Always	Always	Very involved	Very involved	Very involved
Concordance with the caregiver (%)	62	46	69	38	62	38

'support and relationships' as facilitators of their own participation. Also, notice that none of the caregivers mentioned 'natural environment and human-made changes to the environment' as a facilitator of the children's participation (Table 5).

Discussion

Considering that the population in Portugal was confined to home due to the Covid-19 pandemic, this study aimed to characterise the participation of the local preschool and elementary school-aged children in daily activities, considering both the children's and caregivers' perspectives. The main goals were to identify patterns of frequency and involvement in daily activities, identify the most important activities for the children in confinement, and identify which factors worked as facilitators and barriers for the children to perform these activities. We also searched for differences in participation between the different groups of children (i.e. the children attending preschool vs. those attending elementary school), gender (male vs. female), and children with versus without learning disabilities. Note that the pandemic imposed some restrictions on attendance in educational settings – one of the primary developmental contexts in childhood – so understanding child participation during the pandemic can be helpful for the families and professionals who support children in future crises and situations involving child isolation (e.g. Graber et al. 2020).

The results showed that both preschool and elementary school children participated more in the same activities, namely mealtime, family time, and personal care. The activity with less frequent participation for both groups was taking care of their own health.

Table 5. Facilitators and barriers to children's participation.

	Facilitators						Barriers					
	Participant 1		Participant 2		Participant 3		Participant 1		Participant 2		Participant 3	
	Child	Caregiver	Child	Caregiver	Child	Caregiver	Child	Caregiver	Child	Caregiver	Child	Caregiver
Products and technology					X							
Natural environment and human-made changes to the environment	X		X		X		X		X			
Attitudes												
Support and relationships	X		X	X	X	X				X	X	X
Services, systems and policies								X				
Child's characteristics and attitudes		X										
Consequences of the pandemic	X							X	X			

Additionally, medium-high levels of engagement within the most frequent activities were reported by caregivers. Once again, significant differences in levels of involvement in the most frequently attended activities were not found between the groups. Curiously, the children seemed to participate more often in the less demanding activities involving planning during confinement, namely family meals and family time. The lack of differences in levels of involvement between children of different ages – preschool and elementary school age – may indicate that when children have the opportunity to experience an activity, and the environment fosters their involvement, similar levels of involvement can be achieved regardless of age. Some authors have mentioned that engagement in daily activities is crucial for child development and may be conceptualised in terms of two types – a core engagement dimension versus a developmental engagement dimension – with both being pivotal for learning and participation (e.g. Sjöman 2023; Sjöman et al. 2020). Regardless, the global frequency of participation of the elementary school children was higher, in line with results from previous research (Grande 2013; Smith 2002) that showed that younger children had more unoccupied time when compared to older children and fewer opportunities for participation. Without considering particular activities, the overall levels of involvement of the elementary school children were also higher, which can be attributed to the positive association between chronological and mental age and the sophistication of the involvement previously documented in the literature (Kruif and McWilliam 1999; McWilliam and Bailey 1995). Notably, our study brings light to the need to understand the frequency of participation to comprehend involvement levels. Note that in activities with similar patterns of frequency, the involvement levels were similar for the preschool and elementary school children in this study. This may indicate that a higher frequency allows children to be more involved, as they have increased opportunities to develop interest and proficiency in the activity, and this increases involvement. Tonkin et al. (2014) underlined that a child's level of enjoyment and contextual factors influence their level of successful participation, thus supporting our hypothesis that increased opportunities can support the development of interest and consequently improve a child's participation. Some previous studies had found that specific factors contributed to changes in child engagement and behaviour during restriction moments (e.g. Blanta, Karathanasi, and Tzonichaki 2023), for instance age, particularly for older children (e.g. Aguilar-Farias et al. 2020; Moore et al. 2020). This did not appear in our study, which may be related to the children's age.

When analyzing the differences in participation based on the children's gender, the girls showed a relatively greater level of global involvement and a higher frequency of participation in most activities, which seems to be in line with previous studies that stress the influence of gender on children's behaviour and preferences, possibly related to gender roles and societal expectations (e.g. Navarro 2014; Sjöman et al. 2020). Notwithstanding, these findings have significant implications for child education and development. By recognising the differences in participation based on gender, and by understanding the influence of societal expectations, caregivers can both shape their approaches to better support children's individual interests and needs and ensure they help close the gap between girls' and boys' participation (Gracia et al. 2021; Rees 2017).

The comparison between the participation of children with and without learning disabilities did not show statistically significant differences between groups, contrary to the

results of several studies that had found lower levels of participation of children with learning disabilities (e.g. Bailey et al. 2014; Casey, McWilliam, and Sims 2012; Coelho and Pinto 2018; Coelho, Cadima, and Pinto 2023; Engel-Yeger et al. 2009; Eriksson, Welander, and Granlund 2007; Ferreira, Coelho, and Pinto 2012; Grande 2013), possibly related to the (i) small number of children with disabilities in the study; (ii) the fact that the children with disabilities presented low to mild learning disabilities; and (iii) that participation (frequency and involvement) was assessed for activities mainly at home, as the population was in confinement. Thus, as both the children and families were at home, the attendance of daily activities was probably similar for all the children. Note that most studies that documented differences in children (i.e. those with vs. without disabilities), participation was mostly conducted in formal educational settings and underlined that the children with more severe disabilities tended to have lower levels of participation (e.g. Coelho, Cadima, and Pinto 2023; Grande and Pinto 2012). Thus, future studies are needed to better understand our results.

Regarding the prioritisation of activities, both the caregivers of preschool and school-aged children identified family time and school activities as priorities. Some previous studies (Arvidsson et al. 2013; Andersson and Berge 2016) had found a higher frequency of participation in the activities selected as the most important. In this study, this did not happen for the activity 'school,' which can be related to the fact that face-to-face school was suspended and participation in online school activities depended on family support and digital resources. Per the preschool children, there was more involvement in the activities prioritised as most important, which cohered with the results obtained by Andersson and Berge (2016).

The caregivers identified facilitators and barriers of participation that included child and environment factors (WHO 2001, 2007; Tonkin et al. 2014). The caregivers mainly focused on their children's characteristics and attitudes as affecting participation, both as a barrier and a facilitator. This seems to indicate that the caregivers predominantly emphasised the children themselves to explain their levels of participation, as suggested by the medical model (Grande 2013), being less aware of the power of environmental factors in fostering or hindering participation. Current models of participation and development emphasise interdependent and dynamic relationships between environmental factors and a child's characteristics (Albrecht and Khetani 2016; Anaby et al. 2014; Bronfenbrenner 1979; Di Marino et al. 2018; Guichard and Grande 2017; Osher et al. 2018; Sameroff 2010). Although the caregivers focused on both the child's characteristics as facilitators and barriers, a higher frequency of attribution of child characteristics as a barrier was found. This is particularly unsettling because, as in previous studies, in the case of samples constituted by children with disabilities, caregivers explain their children's (lack of) participation based on their children's individual characteristics. We also highlight that in our case study, the children never mentioned their characteristics as factors influencing their participation; on the contrary, they reinforced the impact of the environmental barriers on their participation, aligning with transactional models of participation. This study also found that the children and their caregivers had different perspectives on the child's participation, reinforcing the necessity of listening to the children about their own experiences (Correia et al. 2019).

Limitations and future research

Some limitations must be acknowledged for interpreting our results. First, the data collection using digital platforms may have made the study inaccessible to participants without these resources, thus probably creating some biases in our sample only composed of participants with digital literacy and computers and an internet connection at home. Therefore, future research might include populations without access to these resources and knowledge.

Moreover, participants of this study only included 12 children with learning disabilities, one of which had a severe disability. We consider important the development of studies with a higher representativity of children with different disabilities such that it could be possible to analyze more fully their real and current participation in daily activities. Additionally, a low number of children completed the PmP measure in this study, with a higher number of participants in the caregivers' group. Although the measure has both a child and a caregiver version that can be used independently, future studies that increase the number of children completing the measure are needed to provide evidence regarding the measure's validity for Portuguese populations for both the PmP versions. In this sense, although this study represents an important step in understanding children´s perspectives of their own participation through a Portuguese translation of the PmP (i.e. Picture My Participation!) (Imms et al. 2014), we stress that future studies on the measure's validity and psychometric characteristics for Portuguese children with and without disabilities, as well as their caregivers, are still needed.

Conclusions

The 'new (ab)normal' in the title of this research refers to a daily life that brought big changes to the routines of children and their families. Covid-19 arrived suddenly and quickly became an extremely relevant topic in psychology. The confinement imposed physical restrictions on the activities and brought changes to social relationships. For children, there was an increase in their time spent with family but a substantial decrease in time spent with peers during a developmental period where interactions are extremely important to develop identity and social competencies (Erikson 1968). Additionally, future studies comparing participation patterns during times of restriction versus non-restriction are needed to further understand how a restricted environment affects children's participation experiences (Graber et al. 2020).

The Covid-19 related changes made us think about the development opportunities that were gained, particularly pertaining to what occurs during family interactions. However, it is also important to think about the opportunities lost, such as the interactions with peers, and the resulting short-, medium-, and long-term consequences. This study revealed that, despite the changes, the children were capable of showing good levels of participation (frequency and involvement) in their activities in daily life. We did find some differences between how the females versus the males participated, highlighting the fact that the females participated more frequently and showed more involvement in typically feminine activities in the Western context; we also found differences between children with and without learning disabilities that were smaller than expected based on the prior literature.

Finally, the children and their caregivers attributed the levels of participation to different causes. The caregivers focused more on their children's characteristics, while the children focused more on their environment and relationships. These results hopefully enhance future discussions about different perspectives of participation, highlighting the importance of listening to different stakeholders, and emphasising the relevance of the biopsychosocial and transactional perspectives to explain behaviour and human development.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Catarina Grande http://orcid.org/0000-0003-4675-6279

References

Aguilar-Farias, Nicolas, Marcelo Toledo-Vargas, Sebastian Miranda-Marquez, Andrea Cortinez-O'Ryan, Carlos Cristi-Montero, Fernando Rodriguez-Rodriguez, Pia Martino-Fuentealba, Anthony D. Okely, Borja del, and Pozo Cruz. 2020. "Sociodemographic Predictors of Changes in Physical Activity, Screen Time, and Sleep among Toddlers and Preschoolers in Chile During the COVID-19 Pandemic." *International Journal of Environmental Research and Public Health* 18 (1): 176. https://doi.org/10.3390/ijerph18010176.

Albrecht, Erin C, and Mary A Khetani. 2016. "Environmental Impact on Young Children's Participation in Home-Based Activities." *Developmental Medicine & Child Neurology* 59 (4): 388–94. https://doi.org/10.1111/dmcn.13360.

Almqvist, Lena. 2006. "Patterns of Engagement in Young Children with and Without Developmental Delay." *Journal of Policy and Practice in Intellectual Disabilities* 3 (1): 65–75. https://doi.org/10.1111/j.1741-1130.2006.00054.x.

Anaby, Dana, Mary Law, Wendy Coster, Gary Bedell, Mary Khetani, Lisa Avery, and Rachel Teplicky. 2014. "The Mediating Role of the Environment in Explaining Participation of Children and Youth with and Without Disabilities Across Home, School, and Community." *Archives of Physical Medicine and Rehabilitation* 95 (5): 908–17. https://doi.org/10.1016/j.apmr.2014.01.005.

Andersson, Sandra, and Sarah Berge. 2016. "Children with Intellectual Disabilities' Perceptions of Their Participation in Activities in Everyday Life – a Pilot Study: A Minor Field Study Conducted in Ethiopia." Unpublished doctoral thesis, Jönköping University, Faculty of Health and Wellfare, Sweden.

Arvidsson, Patrik, Shakila Dada, Mats Granlund, Christine Imms, Juan Bornman, Catherine Elliott, and Karina Huus. 2019. "Content Validity and Usefulness of Picture My Participation for Measuring Participation in Children with and Without Intellectual Disability in South Africa and Sweden." *Scandinavian Journal of Occupational Therapy* August:336–348. https://doi.org/10.1080/11038128.2019.1645878.

Arvidsson, Patrik, Shakila Dada, Mats Granlund, Christine Imms, Lin Jun Shi, Lin Ju Kang, Ai-Wen Hwang, and Karina Huus. 2021. "Structural Validity and Internal Consistency of Picture My Participation: A Measure for Children with Disability." *African Journal of Disability* 10 (May), https://doi.org/10.4102/ajod.v10i0.763.

Arvidsson, Patrik, Mats Granlund, Ingrid Thyberg, and Mikael Thyberg. 2013. "Important Aspects of Participation and Participation Restrictions in People with a Mild Intellectual Disability." *Disability and Rehabilitation* 36 (15): 1264–72. https://doi.org/10.3109/09638288.2013.845252.

Bailey, Sarah, Kasia Boddy, Stuart Briscoe, and C. Morris. 2014. "Involving Disabled Children and Young People as Partners in Research: A Systematic Review." *Child: Care, Health and Development* 41 (4): 505–14. https://doi.org/10.1111/cch.12197.

Balton, Sadna, Patrik Arvidsson, Mats Granlund, Karina Huus, and Shakila Dada. 2020. "Test-Retest Reliability of Picture My Participation in Children with Intellectual Disability in South Africa." *Scandinavian Journal of Occupational Therapy* December:1–10. https://doi.org/10.1080/11038128.2020.1856922.

Blanta, M., A. Karathanasi, and I. Tzonichaki. 2023. "The Impact of the COVID-19 Pandemic on Children's Occupations." *Hong Kong Journal of Occupational Therapy* 36 (2): 69–83. https://doi.org/10.1177/1569186123120490.

Bonke, Jens. 2010. "Children's Housework - Are Girls More Active Than Boys?" *Electronic International Journal of Time Use Research* 7 (1): 1–16. https://doi.org/10.13085/eIJTUR.7.1.1-16.

Bronfenbrenner, Urie. 1979. *The Ecology of Human Development: Experiments by Nature and Design*. 1st ed. Cambridge: Harvard University Press.

Brown, Sharan E., and Michael J. Guralnick. 2012. "International Human Rights to Early Intervention for Infants and Young Children with Disabilities." *Infants & Young Children* 25 (4): 270–85. https://doi.org/10.1097/IYC.0b013e318268fa49.

Casey, Amy M., R. A. McWilliam, and Jessica Sims. 2012. "Contributions of Incidental Teaching, Developmental Quotient, and Peer Interactions to Child Engagement." *Infants & Young Children* 25 (2): 122–35. https://doi.org/10.1097/IYC.0b013e31824cbac4.

Coelho, Vera. 2019. "Child Engagement and Participation in Inclusive Preschool Settings: Effects of the Quality of the Interactive Processes." Unpublished doctoral thesis, Faculdade de Psicologia e de Ciências da Educação da Universidade do Porto.

Coelho, Vera, Joana Cadima, and Ana Isabel Pinto. 2023. "Child Functioning in Inclusive Preschools: Associations Between Self-Regulation, Engagement, Prosociality, and Hyperactivity." *Journal of Applied Developmental Psychology* 86 (May): 101518. https://doi.org/10.1016/j.appdev.2023.101518.

Coelho, Vera, and Ana Isabel Pinto. 2018. "The Relationship Between Children's Developmental Functioning and Participation in Social Activities in Portuguese Inclusive Preschool Settings." *Frontiers in Education* 3 (March), https://doi.org/10.3389/feduc.2018.00016.

Cohen, Jacob. 1988. *Statistical Power Analysis for the Behavioral Science*. 2nd ed. New York: Routledge.

Correia, Nadine, Cláudia Camilo, Cecília Aguiar, and Fausto Amaro. 2019. "Children's Right to Participate in Early Childhood Education Settings: A Systematic Review." *Children and Youth Services Review* 100 (1): 76–88. https://doi.org/10.1016/j.childyouth.2019.02.031.

Decree-Law. 2-A/2020 of March 18. *Diário da República 1.° Suplemento, Série I - N.° 57*. Presidência do Conselho de Ministros. Lisbon, Portugal.

Decree-Law. 2-B/2020 of April 2. *Diário da República 2.° Suplemento, Série I - N.° 66*. Presidência do Conselho de Ministros. Lisbon, Portugal.

Decree-Law. 2-C/2020 of April 17. *Diário da República 1.° Suplemento, Série I - N.° 76*. Presidência do Conselho de Ministros. Lisbon, Portugal.

Decree-Law no. 54/2018 of July 6. *Diário da República 1.ª Série – N.° 129*. Ministério da Educação. Lisbon, Portugal.

Di Marino, Erica, Stephanie Tremblay, Mary Khetani, and Dana Anaby. 2018. "The Effect of Child, Family and Environmental Factors on the Participation of Young Children with Disabilities." *Disability and Health Journal* 11 (1): 36–42. https://doi.org/10.1016/j.dhjo.2017.05.005.

Elo, Satu, and Helvi Kyngäs. 2008. "The Qualitative Content Analysis Process." *Journal of Advanced Nursing* 62 (1): 107–15. https://doi.org/10.1111/j.1365-2648.2007.04569.x.

Engel-Yeger, B., T. Jarus, D. Anaby, and M. Law. 2009. "Differences in Patterns of Participation Between Youths with Cerebral Palsy and Typically Developing Peers." *The American Journal of Occupational Therapy* 63 (1): 96–104. https://doi.org/10.5014/ajot.63.1.96.

Erikson, Erik H. 1968. *Identity: Youth and Crisis*. New York: W.W. Norton.

Eriksson, Lilly, Jonas Welander, and Mats Granlund. 2007. "Participation in Everyday School Activities for Children with and Without Disabilities." *Journal of Developmental and Physical Disabilities* 19 (5): 485–502. https://doi.org/10.1007/s10882-007-9065-5.

Ferreira, Tiago, Vera Coelho, and Ana Isabel Pinto. 2012. "Early Childhood Intervention Practices Based on Evidence: The Case of Participation." In *European Conference on Developmental Psychology Rita Zukauskiene (Eds.)(CD-ROM)*, 485–490. Bologna, Italy: Medimond International Proceedings.

Field, Andy. 2015. *Discovering Statistics Using IBM Spss Statistics + Sage IBM Spss Statistics V23.0, Student Version*. London: Sage Pubns.

Graber, Kelsey M., Elizabeth M. Byrne, Emily J. Goodacre, Natalie Kirby, Krishna Kulkarni, Christine O'Farrelly, and Paul G. Ramchandani. 2020. "A Rapid Review of the Impact of Quarantine and Restricted Environments on Children's Play and the Role of Play in Children's Health." *Child: Care, Health and Development* 47 (2), https://doi.org/10.1111/cch.12832.

Gracia, Pablo, Joan Garcia-Roman, Tomi Oinas, and Timo Anttila. 2021. "Gender Differences in Child and Adolescent Daily Activities: A Cross-National Time Use Study." *Acta Sociologica, April* 000169932110085), https://doi.org/10.1177/00016993211008500.

Grande, Catarina. 2013. *Estudo do Impacto Das Interacções Educadora-Criança no Envolvimento Das Crianças Com Necessidades Educativas Especiais em Contexto de Creche e de Jardim-de-Infância* [*Study of the Impact of Teacher-Child Interactions on the Engagement of Children with Special Educational Needs in the Context of Daycare and Kindergarten*]. Fundação Calouste Gulbenkian.

Grande, Catarina, and Ana Isabel Pinto. 2012. "O Envolvimento de Crianças Com Necessidades Educativas Especiais Em Contexto de Creche E de Jardim-De-Infância." *Análise Psicológica* 29 (1): 99–117. https://doi.org/10.14417/ap.42.

Granlund, Mats. 2013. "Participation - Challenges in Conceptualization, Measurement and Intervention." *Child: Care, Health and Development* 39 (4): 470–73. https://doi.org/10.1111/cch.12080.

Guichard, Sofia, and Catarina Grande. 2017. "The Role of Environment in Explaining Frequency of Participation of Pre-School Children in Home and Community Activities." *International Journal of Developmental Disabilities* 65 (2): 108–15. https://doi.org/10.1080/20473869.2017.1378160.

Guralnick, Michael J. 2008. "International Perspectives on Early Intervention." *Journal of Early Intervention* 30 (2): 90–101. https://doi.org/10.1177/1053815107313483.

Hofferth, Sandra L., and John F. Sandberg. 2001. "How American Children Spend Their Time." *Journal of Marriage and Family* 63 (2): 295–308. https://doi.org/10.1111/j.1741-3737.2001.00295.x.

Imms, Christine, and Mats Granlund. 2014. "Participation: Are We There Yet … ." *Australian Occupational Therapy Journal* 61 (5): 291–92. https://doi.org/10.1111/1440-1630.12166.

Imms, Christine, Mats Granlund, Joanne Bornman, and C. Elliott. 2014. *Picture My Participation*. research version 1.0. [(accessed on 22 June 2019)]; https://onlinelibrary.wiley.com/doi/full/10.1111dmcn.12778_58.

Imms, Christine, Mats Granlund, Peter H. Wilson, Bert Steenbergen, Peter L. Rosenbaum, and Andrew M. Gordon. 2017. "Participation, Both a Means and an End: A Conceptual Analysis of Processes and Outcomes in Childhood Disability." *Developmental Medicine & Child Neurology* 59 (1): 16–25. https://doi.org/10.1111/dmcn.13237.

Imms, Christine, and Dido Green. 2020. *Participation: Optimising Outcomes in Childhood-Onset Neurodisability*. London: Mac Keith Press.

King, Gillian A. 2004. "The Meaning of Life Experiences: Application of a Meta-Model to Rehabilitation Sciences and Services." *American Journal of Orthopsychiatry* 74 (1): 72–88. https://doi.org/10.1037/0002-9432.74.1.72.

King, G. 2013. "Perspectives on Measuring Participation: Going Forward." *Child: Care, Health and Development* 39 (4): 466–69. https://doi.org/10.1111/cch.12083.

King, G. A., M. Law, S. King, P. Hurley, S. Hanna, M. Kertoy, and P. Rosenbaum. 2007. "Measuring Children's Participation in Recreation and Leisure Activities: Construct Validation of the CAPE and PAC." *Child: Care, Health and Development* 33 (1): 28–39. https://doi.org/10.1111/j.1365-2214.2006.00613.x.

Kruif, Renée E. L. de, and R. A. McWilliam. 1999. "Multivariate Relationships among Developmental Age, Global Engagement, and Observed Child Engagement." *Early Childhood Research Quarterly* 14 (4): 515–36. https://doi.org/10.1016/S0885-2006(99)00028-9.

Larson, Reed W. 2000. "Toward a Psychology of Positive Youth Development." *American Psychologist* 55 (1): 170–83. https://doi.org/10.1037/0003-066X.55.1.170.

Li, Liya, Berit Møller Christensen, Marita Falkmer, Yue Zhao, and Karina Huus. 2023. "Content Validity of the Instrument 'Picture My Participation' for Measuring Participation of Children with and Without Autism Spectrum Disorder in Mainland China." *Scandinavian Journal of Occupational Therapy* 30 (8): 1237–47. https://doi.org/10.1080/11038128.2023.2220911.

Liao, Ya-Tzu, Ai-Wen Hwang, Hua-Fang Liao, Mats Granlund, and Lin-Ju Kang. 2019. "Understanding the Participation in Home, School, and Community Activities Reported by Children with Disabilities and Their Parents: A Pilot Study." *International Journal of Environmental Research and Public Health* 16 (12): 2217. https://doi.org/10.3390/ijerph16122217.

Maneesriwongul, Wantana, and Jane K. Dixon. 2004. "Instrument Translation Process: A Methods Review." *Journal of Advanced Nursing* 48 (2): 175–86. https://doi.org/10.1111/j.1365-2648.2004.03185.x.

Matthews, Hugh. 2003. "Children and Regeneration: Setting an Agenda for Community Participation and Integration." *Children & Society* 17 (4): 264–76. https://doi.org/10.1002/CHI.745.

Maxwell, Gregor, and Mats Granlund. 2011. "How Are Conditions for Participation Expressed in Education Policy Documents? A Review of Documents in Scotland and Sweden." *European Journal of Special Needs Education* 26 (2): 251–72. https://doi.org/10.1080/08856257.2011.563610.

Mc Manus, Vicki, Paul Corcoran, and Ivan J Perry. 2008. "Participation in Everyday Activities and Quality of Life in Pre-Teenage Children Living with Cerebral Palsy in South West Ireland." *BMC Pediatrics* 8 (1), https://doi.org/10.1186/1471-2431-8-50.

McWilliam, R. A., and Donald B. Bailey. 1995. "Effects of Classroom Social Structure and Disability on Engagement." *Topics in Early Childhood Special Education* 15 (2): 123–47. https://doi.org/10.1177/027112149501500201.

Moore, Sarah A., Guy Faulkner, Ryan E. Rhodes, Mariana Brussoni, Tala Chulak-Bozzer, Leah J. Ferguson, Raktim Mitra, et al. 2020. "Impact of the COVID-19 Virus Outbreak on Movement and Play Behaviours of Canadian Children and Youth: A National Survey." *International Journal of Behavioral Nutrition and Physical Activity* 17 (1), https://doi.org/10.1186/s12966-020-00987-8.

Movshovich, Julia. 2014. "Children's Participation in Society; a key to Development: Children as Essential Actors in Improving Their Lives and Communities." *Political Science*, https://dumas.ccsd.cnrs.fr/dumas-01140059/document.

Mung'ala-Odera, V., R. Meehan, P. Njuguna, N. Mturi, K. Alcock, J. A. Carter, and C. R. J. C. Newton. 2004. "Validity and Reliability of the 'Ten Questions' Questionnaire for Detecting Moderate to Severe Neurological Impairment in Children Aged 6–9 Years in Rural Kenya." *Neuroepidemiology* 23 (1-2): 67–72. https://doi.org/10.1159/000073977.

Navarro, Raúl. 2014. "Children's Preferences for Gender-Typed Objects and Colours: A Commentary from Gender Research in Spain." *Escritos de Psicología / Psychological Writings* 7 (3): 1–9. https://doi.org/10.5231/psy.writ.2014.2210.

Oliveira, Vitor H., Paula C. Martins, and Graça S. Carvalho. 2022. "Children's Daily Activities and Well-Being During the COVID-19 Lockdown: Associations with Child and Family Characteristics." *Current Psychology* February, https://doi.org/10.1007/s12144-022-02759-y.

Osher, David, Pamela Cantor, Juliette Berg, Lily Steyer, and Todd Rose. 2018. "Drivers of Human Development: How Relationships and Context Shape Learning and Development1." *Applied Developmental Science* 24 (1): 6–36. https://doi.org/10.1080/10888691.2017.1398650.

Rees, Gwyther. 2017. "Children's Activities and Time Use: Variations Between and Within 16 Countries." *Children and Youth Services Review* 80 (September): 78–87. https://doi.org/10.1016/j.childyouth.2017.06.057.

Rosenthal, Robert. 1991. *Meta-Analytic Procedures for Social Research*. Newbury Park, Calif.: Sage Publ.

Sameroff, Arnold. 2010. "A Unified Theory of Development: A Dialectic Integration of Nature and Nurture." *Child Development* 81 (1): 6–22. https://doi.org/10.1111/j.1467-8624.2009.01378.x.

Save the Children. 2010. "Regional Study of Children's Participation in Southern Africa: South Africa." Swaziland and Zambia. Save the Children.

Shi, Linjun, Mats Granlund, Yue Zhao, Ai-Wen Hwang, Lin-Ju Kang, and Karina Huus. 2020. "Transcultural Adaptation, Content Validity and Reliability of the Instrument 'Picture My Participation' for Children and Youth with and Without Intellectual Disabilities in Mainland China." *Scandinavian Journal of Occupational Therapy* 28 (2): 147–57. https://doi.org/10.1080/11038128.2020.1817976.

Shonkoff, Jack P., and Deborah A. Phillips. 2000. *From Neurons to Neighborhoods: The Science of Early Child Development*. Washington, DC: National Academy Press.

Simeonsson, Rune, Dawn Carlson, G. S. Huntington, J. S. McMillen, and J. L. Brent. 2001. "Students with Disabilities: A National Survey of Participation in School Activities." *Disability and Rehabilitation* 23 (2): 49–63. https://doi.org/10.1080/096382801750058134.

Sinclair, Ruth, and Anita Franklin. 2000. A Quality Protects Research Briefing: young people's participation." *Department of Health, Research in Practice and Making Research Count: London*.

Sjöman, Madeleine. 2023. "Are Relations Between Children's Hyperactive Behavior, Engagement, and Social Interactions in Preschool Transactional? A Longitudinal Study." *Frontiers in Education* 8 (June), https://doi.org/10.3389/feduc.2023.944635.

Sjöman, Madeleine, Mats Granlund, and Lena Almqvist. 2016. "Interaction Processes as a Mediating Factor Between Children's Externalized Behaviour Difficulties and Engagement in Preschool." *Early Child Development and Care* 186 (10): 1649–63. https://doi.org/10.1080/03004430.2015.1121251.

Sjöman, Madeleine, Mats Granlund, Anna Karin Axelsson, Lena Almqvist, and Henrik Danielsson. 2020. "Social Interaction and Gender as Factors Affecting the Trajectories of Children's Engagement and Hyperactive Behaviour in Preschool." *British Journal of Educational Psychology* October, https://doi.org/10.1111/bjep.12383.

Smith, Anne. 2002. "Interpreting and Supporting Participation Rights: Contributions from Sociocultural Theory." *The International Journal of Children's Rights* 10 (1): 73–88. https://doi.org/10.1163/157181802772758137.

Tonkin, Brenna L., Briana D. Ogilvie, Sarah A. Greenwood, Mary C. Law, and Dana R. Anaby. 2014. "The Participation of Children and Youth with Disabilities in Activities Outside of School: A Scoping Review." *Canadian Journal of Occupational Therapy* 81 (4): 226–36. https://doi.org/10.1177/0008417414550998.

United Nations. 1989. *Convention on the Rights of the Child*. Treaty Series 1577 (November): 3. Geneva United Nations. 1989.

United Nations Educational, Scientific and Cultural Organization. 1994. "The Salamanca Statement and Framework for Action on Special Needs Education." World conference on special needs education: access and quality. Right to Education Initiative.

Ventura, Magda Maria. 2007. "O Estudo de Caso Como Modalidade de Pesquisa." *Rev. SOCERJ* January:383–86.

Vinuto, Juliana. 2014. "A Amostragem Em Bola de Neve Na Pesquisa Qualitativa." *Tematicas* 22 (44): 203–20. https://doi.org/10.20396/tematicas.v22i44.10977.

World Health Organization (WHO). 2001. *International Classification of Functioning, Disability and Health*. Geneva: WHO.

World Health Organization (WHO). 2007. *International Classification of Functioning, Disability and Health –Children and Youth Version*. Geneva: WHO.