Development and Preliminary Validation of a Questionnaire to Measure Parental Support for Drawing

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Introduction

Drawing is one of the basic human communication systems and, like gesture and speech, requires practice and social support to develop [1].

Since drawing takes place mainly in the home environment, we expect parents to contribute most to their children's drawing development.

However, exactly what constitutes the support children receive from their parents remains unknown [2][3].

Aim: Construction and preliminary validation of a suitable questionnaire assessing parental support for drawing.

Methodology

1) Questionnaire Development

Parental Support for Drawing Questionnaire (PSDQ)

- Phase 1: Literature review to create the initial item pool
- Phase 2: Improving questionnaire through consulting non-experts (face validity) and expert panel (content validity)
- Phase 3: Pilot study (n=23) on target population

Initial version: 20 items, 7-point Likert scale (0 = "Never", 6 = "Always")

2) Questionnaire Validation

Preliminary construct validity through EFA and testing internal consistency of the scale
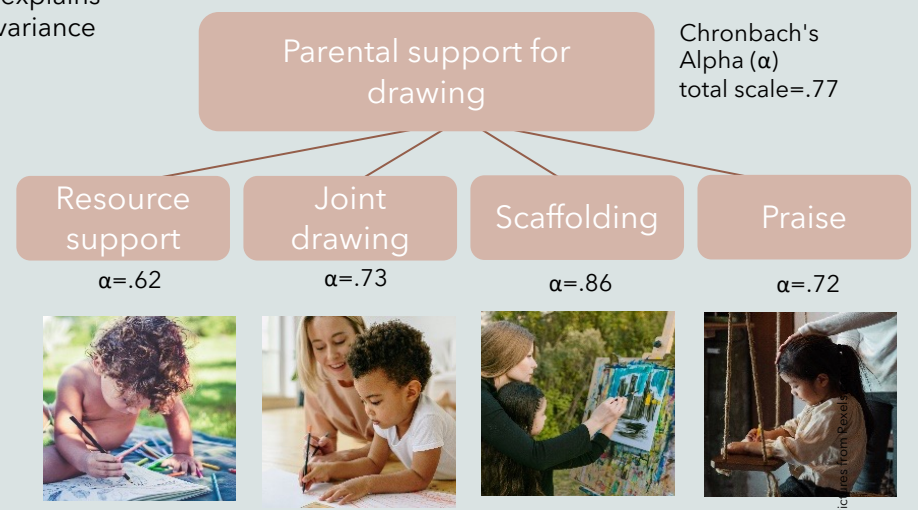
→ Participants

203 parents of 2–12 year old children

Results

Item	Pattern Matrix			
	Factor1	Factor2	Factor3	Factor4
SC-14	.91			
SC-15	.78			
SC-16	.76			
PR-17		.84		
PR-18		.80		
PR-19		.64		
RS-2			.57	
RS-3			.56	
PR-20			.55	
RS-5			.52	
JA-10				-.82
EN-7				-.62
JA-11				-.57
JA-12				-.53

Note. Final factor loadings of the four-factor solution.
SC = Scaffolding; PR = Praise; RS = Resource support; JA = Joint attention; EN =Encouragement. Loadings below .4 have been omitted.

- Four factor solution
- 14 items retained (see Figure 1)
Overall model explains 63.95% of the variance

Chronbach's Alpha (α) total scale=.77

Parental support for drawing

Resource support	Joint drawing	Scaffolding	Praise
α=.62	α=.73	α=.86	α=.72

Pictures from Nappi

Discussion

Psychometric properties of the PSDQ deem it suitable for assessing different types of parental support for drawing.

Implications
- Insight into the underlying factor construct of parental support for drawing
- PSDQ can be applied to measure parental support for drawing.

Future Research
- Replication to establish construct validity (CFA).
- Assessing a more heterogenous cultural sample.

Component	Description	Item	
Resource support (RS)	The provision of a variety of drawing materials, as well as opportunity, time, and space for drawing.	RS-1	Does your child have access to a <u>wide variety</u> of drawing utensils at home (for example, coloured pencils, markers, paint, crayons, charcoal, colouring books, etc.)?
		RS-2	How often do you provide your child with books, magazines, (digital) drawing games, or other material as drawing inspiration?
		RS-3	Do you (or would you) allow your child to draw in different places within the house (e.g. at the dining table, on the floor, etc.)?
		RS-4	How often do you display your child's drawings in the house?
Joint drawing (JD)	Joint drawing activities where the parent is either passive (e.g., watching the child) or active (e.g., drawing together with the child).	JD-5	How often do you encourage your child to draw by suggesting to draw together?
		JD-6	How often do you sit with your child while he/she is drawing?
		JD-7	How often do you pay attention to what your child is drawing?
		JD-8	How often do you draw together with your child <u>if</u> he/she asks you to do so?
Scaffolding (SC)	Activities that aim to enhance the child's drawing skills, such as graphical demonstration and the provision of verbal instructions.	SC-9	(When your child draws,) how often do you help to improve his/her drawing skills?
		SC-10	(When your child draws,) how often do you help to draw certain things by demonstrating it?
		SC-11	(When your child draws,) how often do you make verbal suggestions on how to draw certain things?
Praise (PR)	Praising the child's effort during and after the drawing activity.	PR-12	How often do you praise your child while he/she is drawing?
		PR-13	How often do you praise your child when he/she has completed a drawing?
		PR-14	Do you praise your child also if his/her drawing is not so good?

Figure 1. Descriptive information for each component of the initial draft PSDQ and the corresponding item pool

References

[1] Callaghan, T. C., Rochat, P., & Corbit, J. (2012). Young children's knowledge of the representational function of pictorial symbols: development across the preschool years in three cultures. *Journal of Cognition and Development*, 13(3), 320-353.

[2] Callaghan, T. (2020). The origins and development of a symbolic mind: the case of pictorial symbols. *Interchange*, 51(1), 53-64.

[3] Fernyhough, C. (2008). Getting Vygotskian about theory of mind: Mediation, dialogue, and the development of social understanding. *Developmental review*, 28(2), 225-262.