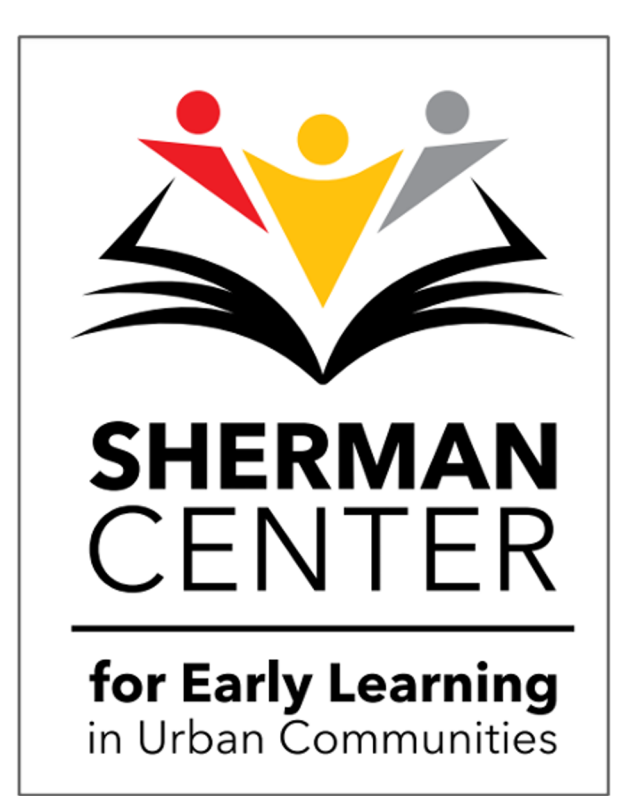


Learning During a Pandemic: Teachers' and Parents' Perspectives

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BACKGROUND

COVID-19 has impacted families globally for almost two years. This study focuses on the impact of COVID-19 on children's education. Most schools world-wide were shuttered in March 2020 and children attended virtual classes. Although there is a growing body of research on how children, families, and teachers have fared with virtual instruction (e.g., Reich et al., 2020; Sonnenschein et al., 2021; Stites et al., 2021), much still needs to be learned. Using Bronfenbrenner's (1979) ecological model, this work considers how elementary teachers, parents, and their children are coping with virtual instruction during the ongoing pandemic.

RESEARCH QUESTIONS

- What does the virtual learning context look like?
- What are the challenges experienced by teachers and families?
- Is virtual learning enjoyable or frustrating for children?
- How much are children reportedly learning?

DESIGN & PROCEDURE

Participants.

Study 1: Elementary school Teachers (N=49; K-5th & 3 special programs).

- 71% female, 12% male, 16% did not report.
- Taught in the US (7 states and District of Columbia).
- School type: 82% taught in public schools, 14% in private schools, 4% in public charter schools.

Study 2: Elementary school Parents (N=189).

- 68% female, 16% male, <1% non-binary, 15% did not report.
- Parents resided in the US (from 31 states and District of Columbia).

Children (K-5th grade).

- 52% female, 46% male, 2% identified as both, 1% did not report.
- Ethnicity: Majority White (70%), 2% did not report.
- School type: 70% enrolled in public school, 20% in private school, 8% in public charter school, 2% home-schooled.

Procedure.

The online survey was administered in Spring 2021 and asked parents and teachers about different aspects of virtual learning including the instructional modality, format, and design, and their perspective on the challenges faced in managing instruction. The survey also asked about children's patterns of attention allocation, and their perceived frustration and enjoyment levels, and learning performance.

The survey questions consisted of multiple-choice items, rankings, Likert scale, and open-ended questions.

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RESULTS

RQ1: What does the virtual learning context look like?

- Teachers/Parents reported spending the majority of time ($M_s \geq 61\%$) per week engaging in synch. instruction.
 - Majority reported synch. instruction was primary mode for core subjects
 - Math ($\geq 85\%$), English ($\geq 79\%$), and Science ($\geq 70\%$).
- Teachers reported the quantity of instruction was less for virtual instruction compared to in-person instruction for core subject areas as reported by teachers, all paired $t_s \geq 2.55$, $p_s \leq .02$, Cohen's $d_s \geq .57$.
- Instruction occurred more often in the whole class format compared to small groups and individual formats, paired $t_s \geq 6.06$, $p_s < .001$, Cohen's $d_s \geq .90$.

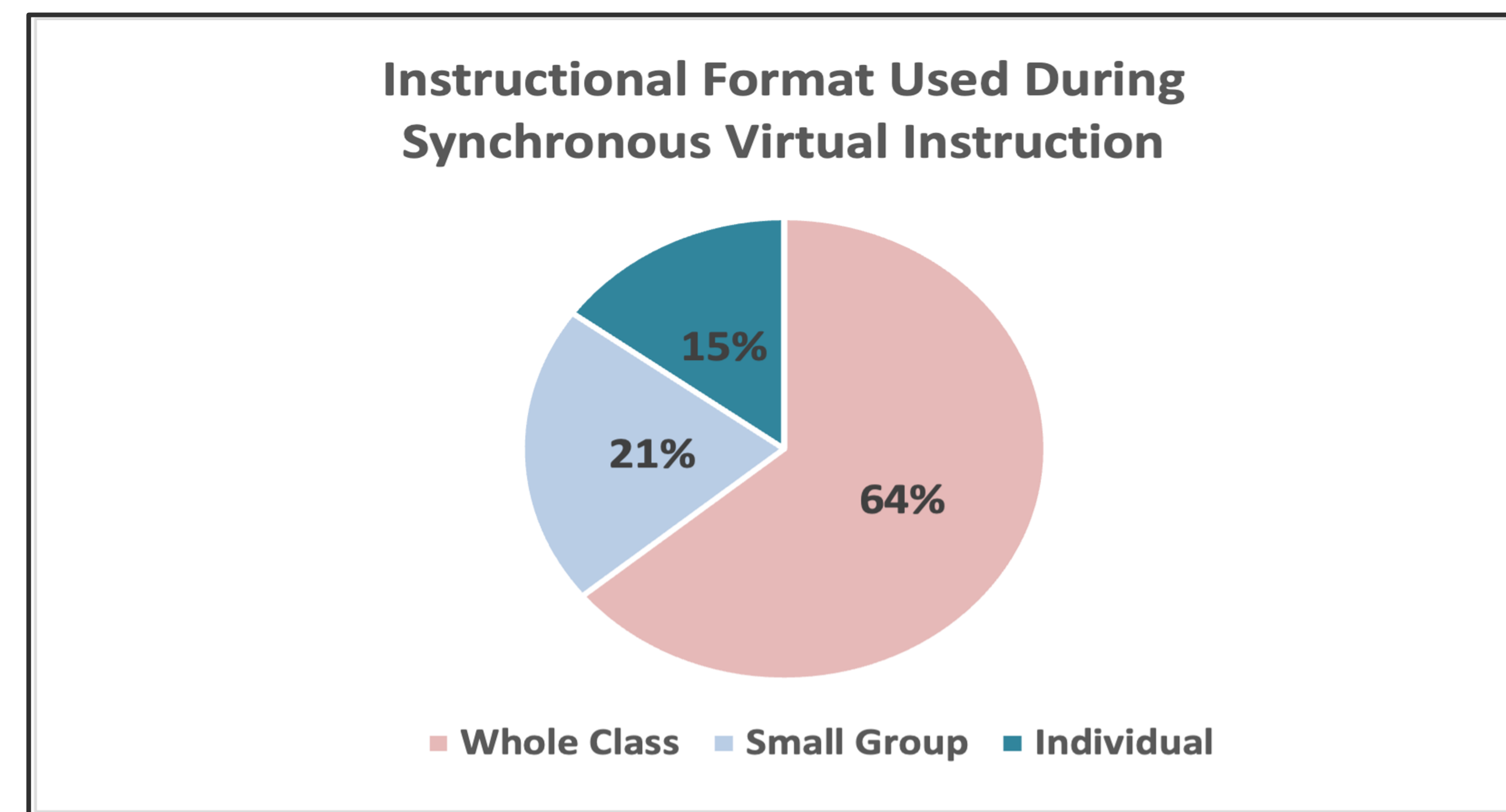


Figure 1. Mean percentage of synch. instruction that occurred in each format as reported by teachers

RQ2: What are the challenges experienced by families and teachers?

- Parents reported greater stress managing virtual ($M = 2.69$) vs. in-person instruction ($M = 1.79$) pre-covid ($p < .001$).
- Virtual instruction primarily occurred in the home (89%).
- Parents/guardians typically guided instruction (72%).
- Children were largely dependent on adult support
 - Only 45% of children were rated by parents as being capable of completing synch. lessons independently.
- Managing children's attention during virtual instruction was somewhat to very difficult for parents (32%) and teachers (77%).
 - Only 20% teachers reported the same pre-pandemic.
- Teachers and parents estimated that children spent a third (or more) of virtual instructional time on off task behaviors ($M \geq 33\%$).
- Teachers' estimated children spent more time off-task virtually vs in-person ($p < .001$).

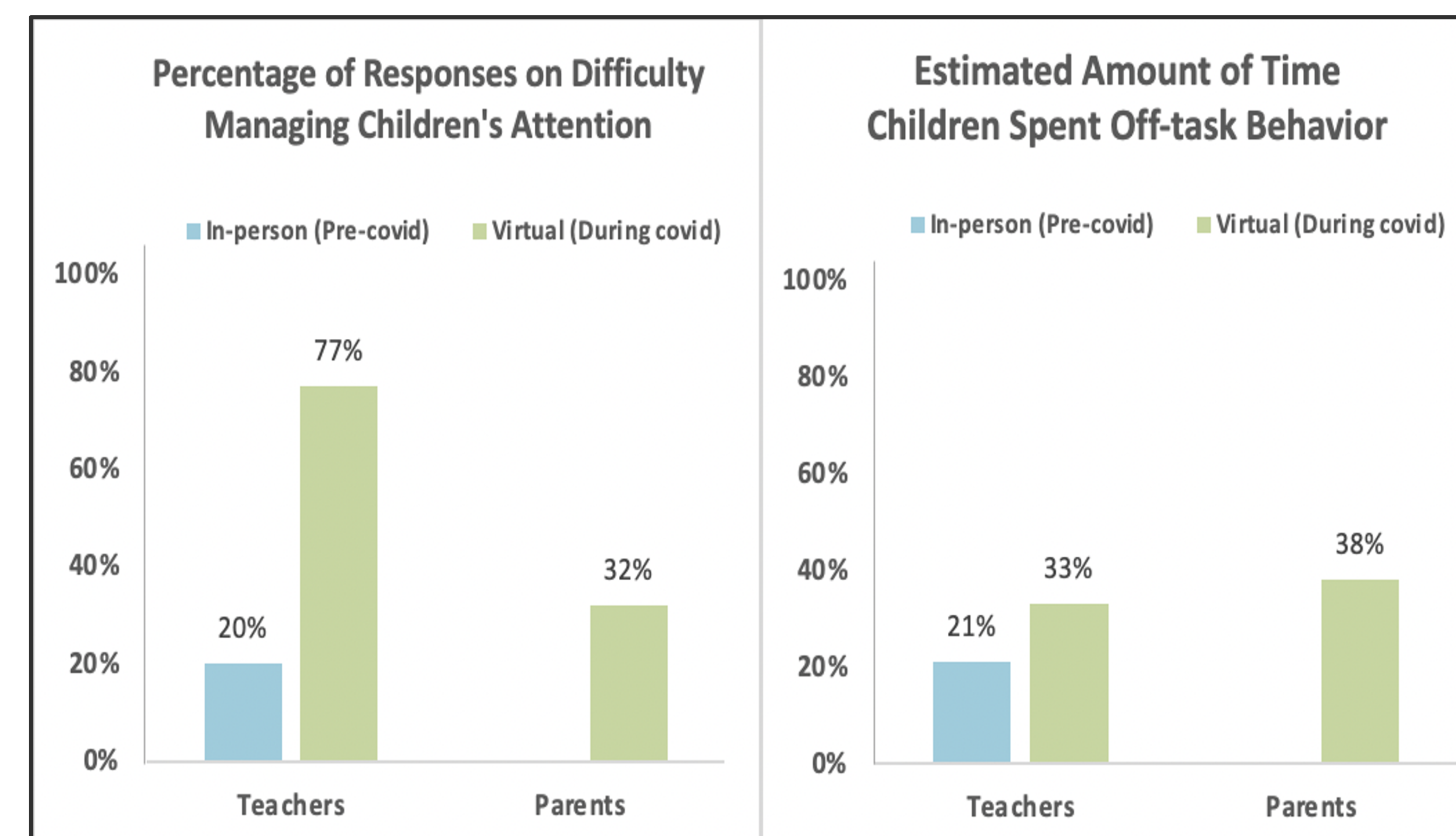


Figure 2. Percentage of respondents who thought managing attention was somewhat to very difficult, and estimates of time spent off-task during instruction.

RESULTS (contd.)

RQ3: Is virtual learning enjoyable or frustrating for children?

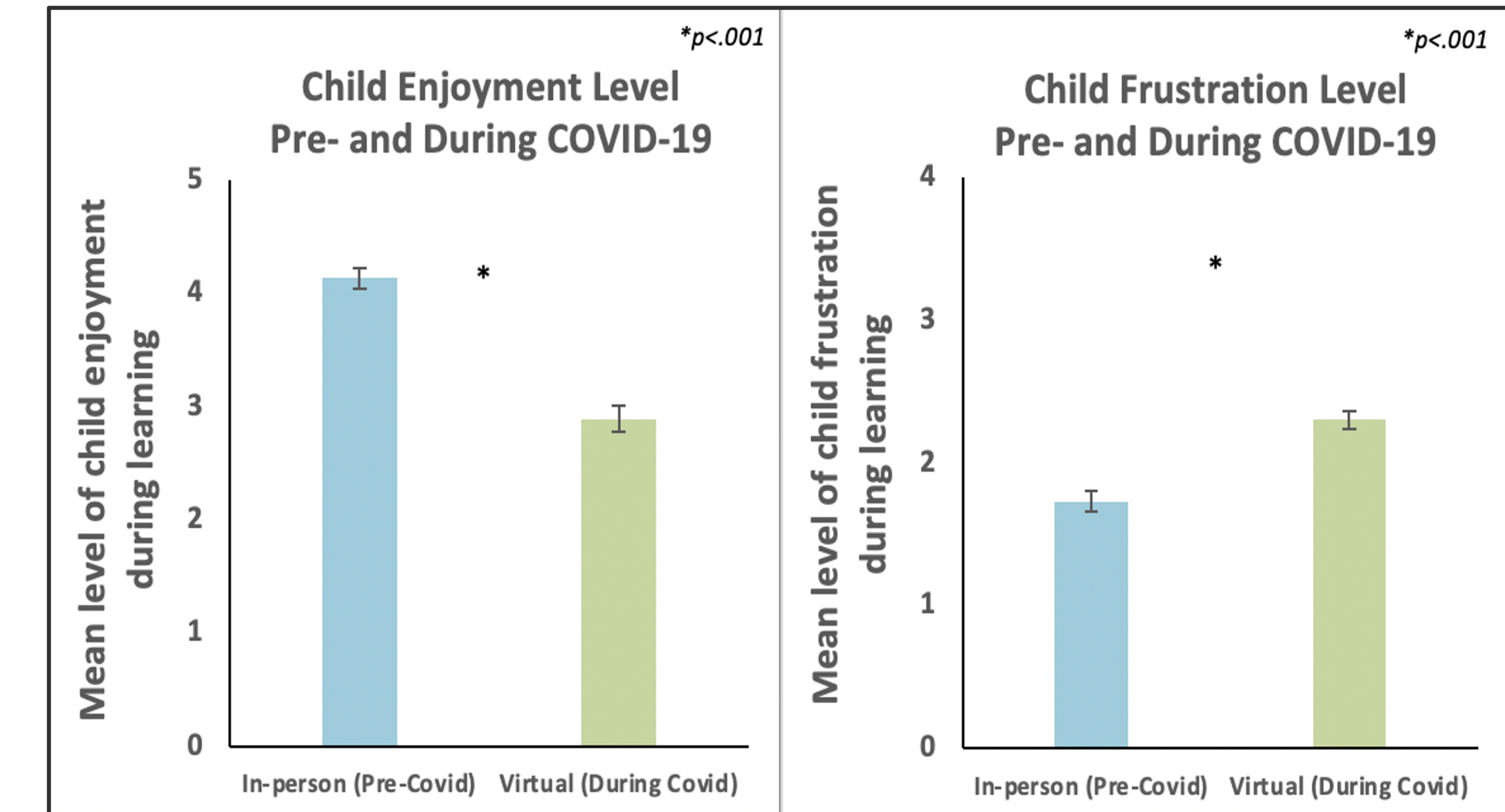


Figure 3. Child Enjoyment and Frustration Level while learning Pre-Covid-19 and During Covid-19 Parents reported that children enjoyed learning in-person more than virtually. Children were mildly frustrated across modalities but exhibited more frustration virtually.

RQ4: How much are children reportedly learning?

- Parents rated the overall quality of their children's in-person instruction (pre-pandemic) as better than children's virtual instruction (paired $t(149) = 5.50$, $p < .001$, Cohen's $d = .45$).

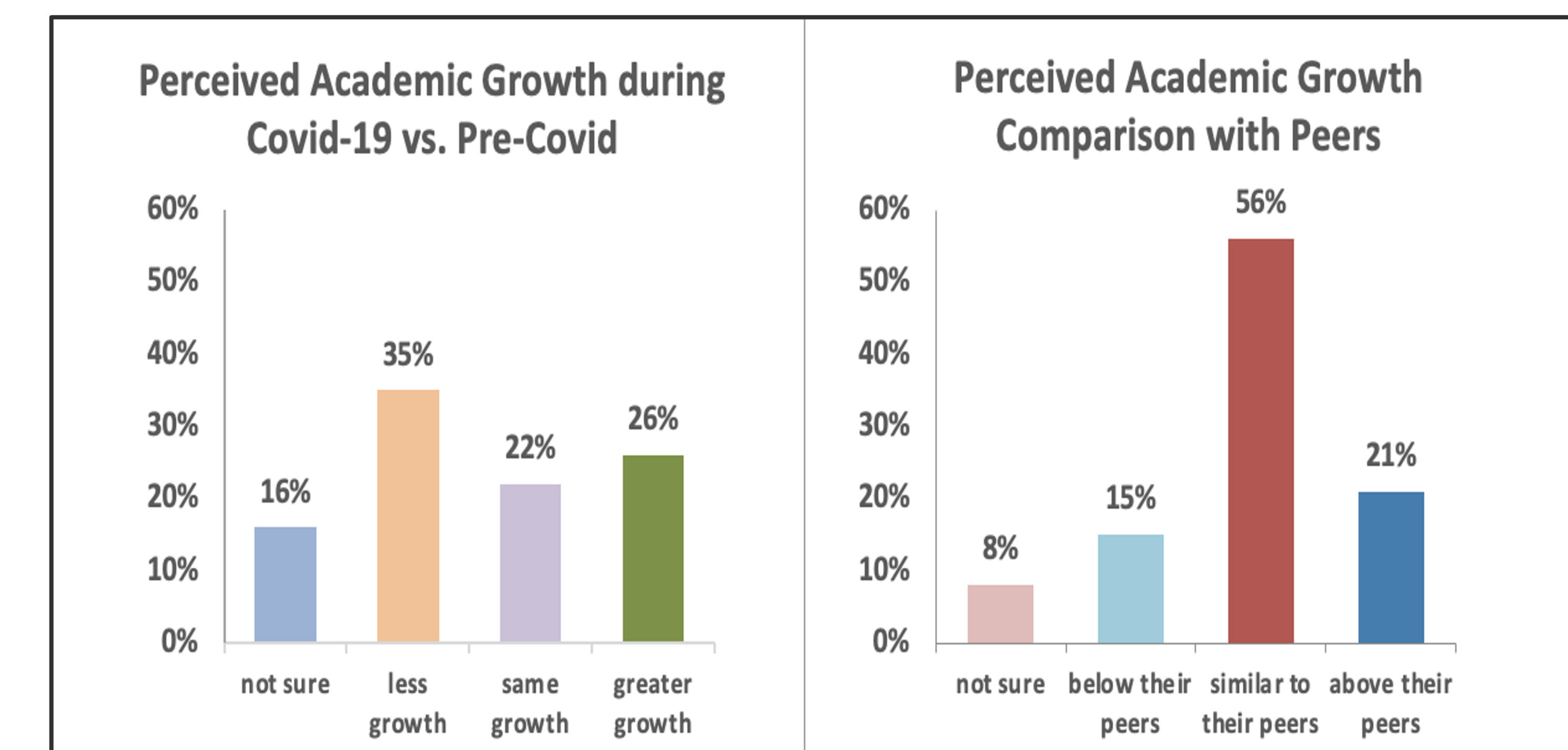


Figure 4. Parent's perception of their child's Academic Growth during Covid and pre-Covid, and academic growth in relation to children's peers.

CONCLUSION

Understanding the experience and challenges teachers, children, and families face in coping with virtual instruction during a global pandemic will enable more targeted support.

- Synchronous instruction largely occurred in a whole class format
- Instruction quantity was estimated to be less during virtual instruction.
- Parents reported greater stress managing virtual instruction.
- Children seemed to neither like nor dislike learning virtually but enjoyed learning in-person more.
- More than a third of parents perceived children's current academic growth to be less than pre-COVID-19, but most parents felt their children's growth was similar to/above their peers.