Weekday vs. Weekend Text-Based Parenting Support in the United States

Researchers:

Kalena Cortes

Hans Fricke

David Song

Ben York

Sector(s): Education

Location: Dallas, TX, USA

Sample: 4,149 families with pre-kindergarten students

Target group: Children under five Parents

Outcome of interest: Student learning

Intervention type: Digital and mobile Early childhood development Information Parental engagement

AEA RCT registration number: AEARCTR-0004205

Research Papers: When behavioral barriers are too high or low – How timing matters for text-base...

Partner organization(s): Dallas Independent School District, ParentPowered, Spencer Foundation

Text-messaged-based parenting curricula can be effective in supporting positive parenting practices. This study compares weekday to weekend delivery of such a program focused on early childhood development. Weekend texts are, on average, more beneficial to children's literacy and math development for initially lower-achieving children. The weekday texts show benefits for higher-achieving children on higher-order skills. These results are consistent with the hypothesis that lower-educated parents and parents of lower-achieving students face such high barriers during weekdays that light-touch supports cannot consistently overcome them, while during weekends barriers to parenting are well-suited to being addressed by these behavioral approaches.

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Parents can support their children’s development by engaging them in skill-building activities. To do this effectively, parents benefit from having information on how to create a supportive learning environment. Recent studies suggest that providing information through text-messaging interventions can be an effective means of helping parents improve interactions with their children. However, parents must also have the time to act on this information amidst other responsibilities, like work and housekeeping, and it may be more challenging for parents who have restrictive work hours and fewer resources to access childcare. Does the effectiveness of parenting support thus depend on when it is provided?

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The Dallas Independent School District (Dallas ISD) is the second-largest public school district in Texas and one of the largest in the United States, serving approximately 10,000 pre-kindergarten (preschool) students. Among the preschool children in this study, 78 percent were Hispanic, 18 percent were Black, two percent were white, and one percent were Asian. Additionally, 95 percent were considered economically disadvantaged, much like the general preschool population in the district. Among the

parents of these children, 32 percent had some elementary education, 32 percent had a high school degree, and 28 percent had completed some college.

Implemented by ParentPowered, the Tips·by·Text program, also known as Ready4K, provided parents with children enrolled in the Dallas ISD with three types of messages over eight months to help them support their children's development: messages containing general information on best parenting practices for developing literacy, actionable advice with examples of literacy activities, and encouragement for parents to continue engaging with their children.

These text messages covered a broad range of early literacy skills such as letter recognition, beginning word sounds, vocabulary, rhyming, and reading comprehension, progressing to more advanced skills over the course of the program. To make it easier for parents, most of the suggested activities could be integrated into existing family routines, like meals, bath time, and travel.

Three prior studies evaluated the effectiveness of the content and frequency of the original Tips·by·Text program delivered only on weekdays. These studies found that both parents' engagements with their children and the children's literacy scores improved because of the program, especially when the texts were tailored to the level of the children. This research also determined that parents and children benefited most from receiving three texts per week.



Young dad holding baby in his arms while using cell phone. Photo credit: Mauricio Salas Franco, Shutterstock

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Researchers partnered with ParentPowered to conduct a randomized evaluation comparing how timing influences the effects of an early childhood text-messaging program on children's literacy and numeracy development in Dallas, Texas, United States. Parents of preschool children were randomly assigned to one of three different program groups that determined when they

received the FACT, TIP, and GROWTH text messages:

1. *Weekday program (1,473 parents):* Parents in this group received the messages on Monday, Wednesday, and Friday, respectively. This was the design of the original Tips·by·Text program.
2. *Weekend program (1,473 parents):* Parents in this group received the messages on Friday, Saturday, and Sunday, respectively.
3. *Midweek program (1,473 parents):* Parents in this group received the messages on Tuesday, Wednesday, and Thursday, respectively.

Pre-kindergarten students in the Dallas ISD took an assessment at the beginning, middle, and end of the school year in either English or Spanish. This test provided data to measure the participants' early literacy and numeracy skills and outcomes.

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On average, children with lower initial literacy and numeracy scores benefited more from the weekend texts, and children with higher initial scores benefited from weekday texts.

Take-up and attrition: Parents of Black and white students were less likely to consent to participate in Tips·by·Text, while parents of Hispanic and low-income students were more likely to consent. Students who were Black, had lower scores at baseline, and had more educated parents were more likely to leave the study.

Literacy: Children whose parents received the Weekend program could name 1.59 more alphabet letters than children whose parents received the Weekday program, a 5 percent increase from 30.19 letters (out of 52 letters in English and 54 letters in Spanish, including both uppercase and lowercase letters). Children in the Weekend program scored lower than children in other programs on phonological awareness, a more advanced literacy skill that includes identifying rhymes, alliterations, and syllables.

Researchers suggest these results were driven by differences in parents' socioeconomic status (SES) and children's skill levels. Among children whose parents had a low SES, children in the Weekend group fared better in letter naming compared to those in the Weekday group. Similarly, among children with low levels of achievement, children in the Weekend group could name 2.49 more alphabet letters than those in the Weekday group, a 9 percent increase from 26.38 letters. On the other hand, children whose parents had a high SES and were high achieving did worse in phonological awareness if they were in the Weekend group.

Numeracy: Children in the Weekend program could recite 2 percent more numbers sequentially (from a base of 1.7 numbers) and name 2 percent more shapes (from a base of 4.45 shapes) compared to children in the Weekday program. Similar to the literacy outcomes, children with lower initial literacy scores experienced the largest gains. These results are consistent with previous research showing that literacy skills support the development of numeracy skills.

Children in the Weekend and Midweek programs who had above average literacy skills experienced a reduction in their operations scores, which is considered a more advanced math skill. Researchers suggest that lower math skills like rote counting may be more similar to literacy skills than are higher math skills like performing operations.

Researchers suggests that parents with greater financial constraints could take better advantage of the program when text messages were sent during the weekend rather than the work week, possibly because they had more time or fewer distractions on the weekend. The findings also support previous evidence that showing how text messaging programs benefitted students with low levels of literacy. For students with high levels of literacy, weekend texts may not be more advantageous than weekday texts. These findings emphasize the importance of tailoring programs to both the needs of the students and the preferences of the parents to improve learning outcomes.

Cortes, Kalena E., Hans Fricke, Susanna Loeb, David S. Song, and Benjamin N. York. 2023. "When behavioral barriers are too high or low–How timing matters for text-based parenting interventions." Economics of Education Review 92: 102352.