Paras and Parents Partnership (P³)

Judy Storeygard, Audrey Martínez-Gudapakkam, Sabrina De Los Santos & Anya Carbonell
The importance of paraeducators

• Paraeducators often live in the communities they teach.
• They often establish close ties to the families of their students.
• They can help staff include strategies and examples in math class that reflect their students' lives and cultures.

(Rader & Pennell, 2019; Ernst-Slavit & Wenger, 2018)
Project Overview

**Audience:**
- Boston Public School Paraeducators of preK- grade 1 and student families (many families with limited English and literacy)

**Goals:**
- Build paraeducators confidence and pedagogical content knowledge
- Work with paraeducators to develop bilingual videos modeling fun math activities for families to do at home.
Parent Invitation Video (in English)
Project Activities

- Bi-weekly paraeducator professional development.
- Paraeducators create videos with a child using fun math activities we assign during the PD.
- Collaboratively with paras’ feedback, we edit videos, so they model math activities and strategies.
- Paras share videos with families using social media.
- Collect feedback from parents after they watch videos.
Paraeducator PD Components

- Technology training
- Learning Math Content & development of math ideas
  - Example: Trajectory for learning about subitizing
- Math activity game assignments
  - Role playing with paras
  - Providing a script with questions to ask and adaptations.
- Collaborative video reflection and feedback with peers
- Family communication & engagement
Collaborative Video Development

PD

- Math Ideas/content learning
- Activity assignments

Make Video

- Paras create video
- TERC edits to identify math practices

Edit collaboratively

- Paras reflect on video
- Paras provide feedback on video edits

Finalize & share video

- TERC uses feedback to finalize video edits.
- Paras share video with families

©2020
Mathematical Activity Example
Subitizing

- Definition: “Instantly seeing how many.” From a Latin word meaning suddenly.
- Perceptual subitizing: Just seeing it
- Conceptual subitizing: seeing parts that make a whole:
# Subitizing Trajectory

<table>
<thead>
<tr>
<th>Level Name</th>
<th>Age range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small collection Namer</td>
<td>2 years</td>
<td>Can name 1 or 2</td>
</tr>
<tr>
<td>Maker of small collections</td>
<td>3 years</td>
<td>Nonverbally can make collection of the same number.</td>
</tr>
<tr>
<td>Perceptual Subitizer to 4</td>
<td>4 years</td>
<td>Instantly recognizes and names collections up to 4.</td>
</tr>
<tr>
<td>Perceptual Subitizer to 5</td>
<td>5 years</td>
<td>Instantly recognizes and names collections up to 5.</td>
</tr>
<tr>
<td>Conceptual Subitizer to 5+</td>
<td>5 years</td>
<td>Can recognize all arrangements to 5 and name groups (3+2, 4+1)</td>
</tr>
<tr>
<td>Conceptual Subitizer to 10</td>
<td>5 years</td>
<td>Can recognize and name arrangement to 6, then up to 10.</td>
</tr>
</tbody>
</table>
Quick Images Activity

1. Place dots (pennies) on a plate (3 -5) and cover them.
2. Tell child you will quickly uncover the plate and then cover it again. Ask them to act like a camera and take a picture in their mind.
3. Uncover the plate for 2 seconds and cover it up again.
   a) Ask children to hold up their fingers to show how many they saw
   b) Ask, “Can you show me how you see them?” (1 row of 3, 1 of 2 etc.)
4. Let child see plate again to see how many there are and ask: How many do you see?
5. Repeat sequence. Arrange same number of dots differently. (without child seeing).
Paraeducator Video Feedback Examples

- Simplifying and personalizing language:
  - Use words such as “your child” to make it more relevant to parents.

- Noticing statements and questions that support child learning:
  - Adult asking “How do you know?” Or “Can you show me how you know?”

- Suggesting changes in video slides and subtitles
  - Slides too quick for reading or subtitles have too much text.

- Focusing on math content
  - Limit content to 2-dimensional shapes in one video and introduce 3-dimensional shapes in a separate video.
Parent Feedback Examples

• “😊 This is a great idea. [child name] loves one on one activities and this looks right up his alley. I look forward to trying this with him. Thx for sending!”

• “Hola [nombre] 😊 se lo mostré a [nombre] & le gusto, tratare de hacer ese tipo de actividad mas a menudo con ella.” (Hi [para name] 😊 I showed this to [child name] and she liked it, I will try doing this type of activity more often with her.)

• “😊 😊 😊 Si hoy [nombre] lo estaba haciendo con él contando con habichuela. Esta muy buena la idea.” (😊 😊 😊 Yes today [para name] I was doing it with him counting beans. Its a really good idea.)
THANK YOU!
Let’s Stay Connected!

- Audrey Martínez-Gudapakkam: audrey_Martinez-Gudapakkam@terc.edu
- Judy Storeygard: judy_storeygard@terc.edu
- Sabrina De Los Santos: sabrina_delossantos@terc.edu
References


