**Introduction**

**Culturally Situated Learning**
- Culturally Situated Learning frameworks hold culture as central to individuals’ everyday learning experiences that aid in making sense of different social contexts.
- Pairing out-of-school learning activities with in-school learning objectives can merge school concepts with cultural funds of knowledge that are historically and culturally based.

**Out-of-School Learning**
- Interventions that occur in everyday spaces where routines already exist can be low cost, supportive of children’s development and may yield greater impacts for populations within lower socioeconomic areas.

**Current Study**
- This study highlights the use of participatory design, which is not typically used in the field of developmental psychology, to value and incorporate community input to support the learning and development of young children.

**Methods**

**Participatory Design (PD)**
- Co-Design sessions with SAHRT members (n = 22) to promote local engagement
- Participants shared narratives about supermarket experiences and resigned signage from past studies to reflect their values and culture

**Data Analysis**
- Understanding community values reflected in narratives
- Preliminary analysis and codebook development
- Deductive thematic coding using Dedoose software
- Generating signage ideas based on themes from coding

**Research Questions**

1. How do community members envision grocery stores as a space for learning?
2. What learning do community members want to encourage in everyday spaces?
3. How are people’s shopping experiences tied specifically to culture in Santa Ana?

**Results**

**RQ1: Community members envision grocery stores as a space to learn about different foods, bolster language development, gain math skills, and learn how to plan.**

“A funny thing, my girl would say, ‘Mom, what’s this?’ In the store, in the eggplant bag, oh, and she’s like, 'You’re silly, mom, how come an egg is gonna be in a plant? ’ [laughs] I said, ‘No, that’s the name of the plant.’ ‘Eggplant’? ’ ‘How could an egg-is gonna be in a plant?’ ‘So maybe you can like draw an egg and then put a plant there [ri], so they’re together and then like egg plus plant, you got an eggplant.’

**RQ2: Community members redesigned signage to include cultural elements such as language to describe produce and share nutritional information.**

**RQ3: Participants recalled differences in the measuring units used when shopping for items sold by weight. Family members who immigrated to the United States were accustomed to the metric system and recalled differences in portion sizes when converting between the metric and imperial systems.**

**Discussion**

**Centering Community Voices in Developmental Psychology**
- Participatory Design (PD) method is useful for researchers in the field of developmental psychology because it allows for researchers to better integrate communal funds of knowledge during the development process of learning artifacts
- Researchers who use PD can avoid prescribing a set of standards and goals which may not be culturally appropriate in different settings

**Limitations**
- UCI personnel and SAHRT leaders outnumbered parents and caregivers during the co-design sessions; this was addressed by creating signage solely based on community members’ narratives and redesigned signage

**Future Directions**

**Signage in Development**
- Fig 3: creative brief describing logistics of STEM signage

**Follow-Up Studies**
- Direct and socially distant observation to evaluate intervention
- Potential follow up studies include a comparison study between this project and past projects

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**References**


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