



Nurture: reimagining the childcare experience

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Our Team



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Senior
Biomedical
Computation



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Junior
Computer Science



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Sophomore
Symbolic Systems



Diya Sabharwal
Junior
Computer Science

“It takes a village to raise a child”

Why caregivers?

- Raising and supporting the growth of a child is not an easy task
- Support is often defined by multiple influences: family, friends, etc. → every journey is different
- New caregivers may face mental and physical challenges
- Caretakers may benefit from having digital resources to support their actions



Photo by [Marcin Jozwiak](#) on [Unsplash](#)



02

Interviewing Methodology

Our Participants



Amanda - Palo Alto, CA

Elementary school
teacher for 25 years + 1
son



Scott - NY/CA

Pediatric cardiologist +
father of 3 children



Nancy - Palo Alto, CA

Perinatal health educator
for 40 years + mother of 3



Ramik - New Delhi, India

Gynecologist - prenatal
care

Our Recruitment Approach

Each member took advantage of personal network to source interviewees

Crowdsourcing potential interviewees through Stanford faculty and staff

Went out into the “field” - schools, playgrounds, etc.

Interviewee chain - ask for recommendations

Sourcing extreme users through social media

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Interviewee chain - ask for recommendations

*"compensated" in some cases by getting to pet Snuffles the Chihuahua!

Interview Methods

Conducted group interviews (2-3 members) when possible

1 interviewer +
2 note takers

or

1 interviewer +



live speech to text transcription

In person

Zoom recording +
digital note taking +
Otter.ai as backup

Virtual

Guiding Questions

Emotional Journey

Tell us about a particularly exciting moment in your childcare experience.

Trust

How did you navigate different sources of advice and learn what to trust?

Roadblocks

What roadblocks hamper(ed) you from performing your childcare duties to the fullest?

Finding spaces for intervention

What aspect of your work in childcare do you not enjoy/ understand the least?

Understanding Context

What is the demographic of the communities you serve as a professional in childcare?

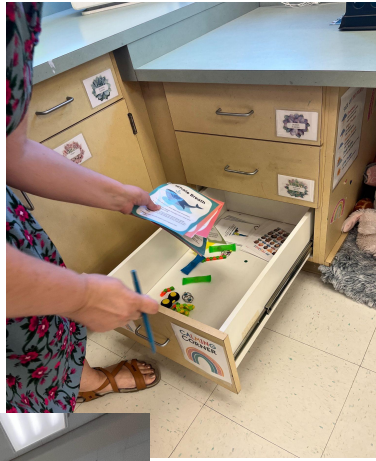
Instilling Values

What was the process of teaching your child(ren) basics of the world like?

03

**Interview
Results**

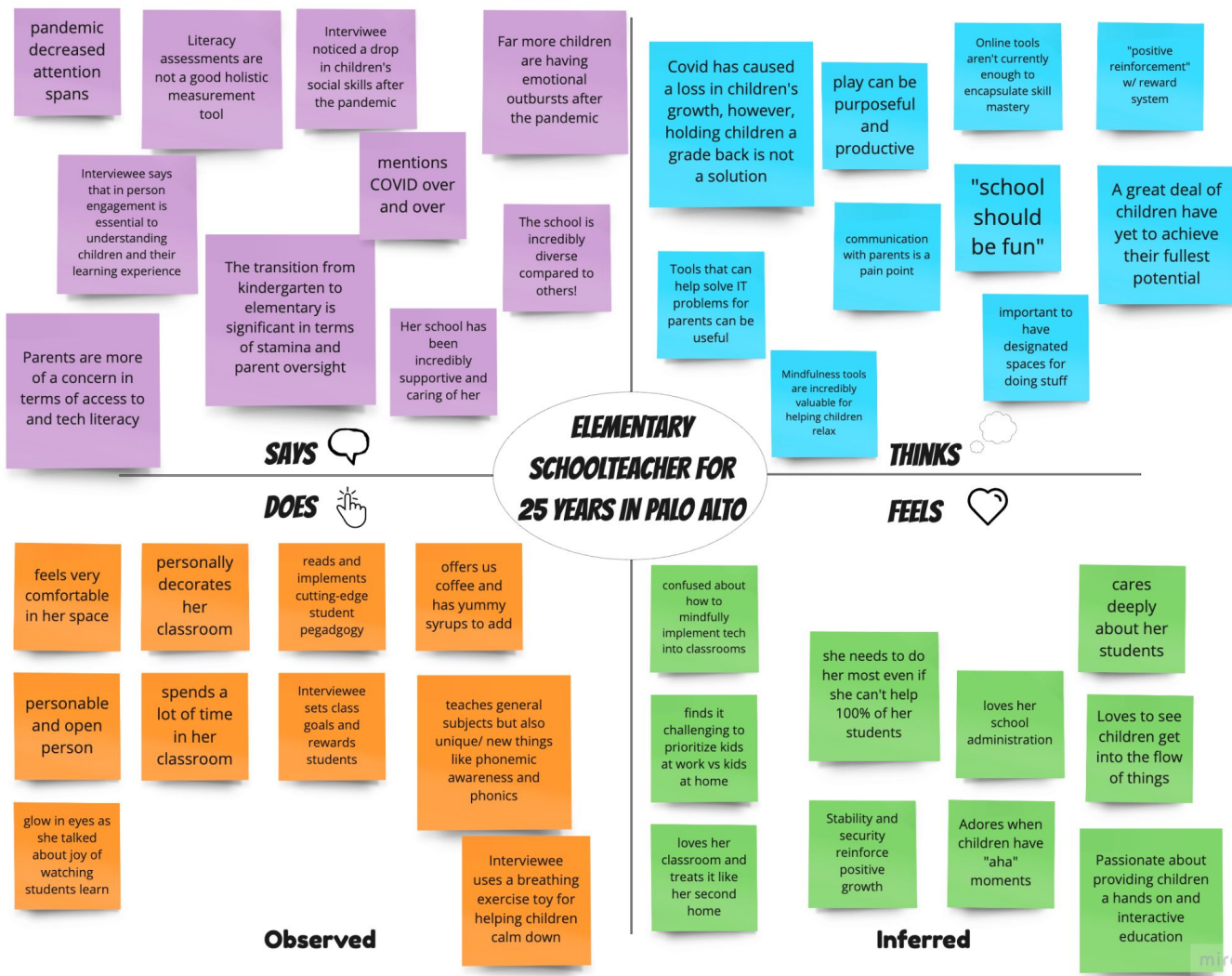
Amanda



Escondido Elementary School

Empathy Map





Key Quotes & Insights

Key Quotes/Insights



Education Rift

"And so I noticed a lot of things...the give and take in conversations sometimes is a lot more one sided than usually happens developmentally at this age."

She worries post covid children have an emotional development disadvantage that will impact long term potential if unfronted



Generation Divide

"And you know, if the kid has the Chromebook to do the homework on, it doesn't mean that the parent has a laptop that they can communicate with the teacher on."

Parents matter just as much as children in closing the digital divide and ensuring meaningful access to critical information



Missing Context

"But I think there's a lot you can't tell, especially about reading from just looking at a score on a computer like I can't, I don't see oh, did their eyes look at the picture to help them?"

Recognizes that the measurement of complex matters like learning effectiveness in a numerical form is insufficient

Scott



Stanford Children's Hospital

| 3 | | | |
|---|--------------------|--|-------|
| DIRECTORY | | | |
| 750 Welch Road | | | |
| NAME | SUITE | NAME | SUITE |
| Stanford University School of Medicine | | Stanford Medicine Children's Health | |
| Abdominal Transplant Surgery | 319 | Advanced Practice Program | 212 |
| Adolescent Medicine | 210 | Bass Center Clinical Programs | 215 |
| Allergy & Asthma Research Program | 114 | Clinical Nutrition | 214 |
| Child Neurology | 317 | | |
| Hematology, Oncology, Stem Cell Transplantation and Regenerative Medicine | 200/224 | Staff Support | |
| Pediatric Cardiology | 305, 315, 321, 325 | Conference Room 220 | 220 |
| Pediatric Gastroenterology, Hepatology, and Nutrition | 104, 116 | Lactation Room 220A | 220A |
| Urology, Pediatric Urology | 218 | Mailroom | 306 |

Empathy Map

The image features a white background at the top and an orange background at the bottom. A thin black vertical line runs down the right side, and a thin black horizontal line runs across the middle, intersecting the vertical line. In the bottom right corner, there is a large, faint, semi-circular shape that overlaps the orange background.

**SCOTT
PEDIATRIC
CARDIOLOGIST**

SAYS 

THINKS 

DOES 

FEELS 

Observed

Inferred

Each kid is a different learning process - no one generic strategy

Wife was better at figuring out cause of kids' distress bc she was physically around them more

Wife would work part time (mostly on weekends), Scott full time during week

Can be hard to find someone you trust to take care of your child while at work

Having friend or sister in law with kids of same age was useful for sharing advice

You learn to adapt your perceptions and fears over time

Even as a pediatrician, raising a baby did not feel real until his wife was pregnant

Kids' schools were really big on social and emotional learning

As sibling of many, noticed girls were more emotionally controlled at a young age

Wife was very physically and emotionally fatigued from regular breastfeeding

Hard for a father to alleviate too much from traditional maternal role stereotypes

Both his and his wife's experience as a sibling of many helped them be accustomed to taking care of kids

Raising kids requires self discovery - can't fully prepare

Kids were able to form friends with others in the neighborhood

Wife's prior experience with nannying and helping with sisters' kids was useful to understand basic kids' needs

With multiple kids anxiety levels decrease over time

Opportunities to try out different approaches to an issue e.g. sleep training can be very useful

Once you've been through a form of childrearing before, future situations are much more intuitive

Being already aware of the mental hurdles braced wife for what to expect

Can be hard to navigate advice from different sources

Mother in law was very helpful with the first baby - chores, helping feed, etc

it's important to instill curiosity in kids

SAYS 

THINKS 

DOES 

FEELS 

Tried to instill good values in kids at home

Spoke about kids with lots of affection

Helped with feeding, changing diaper, tasks around house

very knowledgeable about kids from clinical and personal POV

kept track of milestones of kids (first bike, etc)

With his own sister being much older than him, was unsure how raising 3 girls would be

Felt lucky to have amazing extended family as support group

Emotionally challenging to raise multiple small kids at once

parents face a lot of pressure to raise kids perfectly and teach them the right things

When mentioning the kids in order, pointed to their names on the wall

Responded to personal questions as a father, not as a pediatrician

Used hands to convey levels of emotions

Pointed to kids' photos on wall

Proud father - displayed kids' artwork in office

Mental and physical exhaustion was reduced because of support network

wishes there was more he could have done to help out

Prior exposure to kids can be game changing

now feels more prepared to give advice of his own to new parents

move from NY to CA away from family made raising of the third kid slightly less stress free

Key Quotes & Insights

Key Quotes/Insights

No generic solutions

“so much of it is trial and error for that individual child... for each of the kids, it works a little differently”

What works for one kid might not work for another so even prior experience isn't fully reliable.

Self discovery

“we try all these different things that we read in all these books.. our parents would give us advice you try XYZ..and it didn't work. you have to find out what works for your particular child”

Books and outside advice will only go so far. You learn a lot on the job. Be prepared to veer off course.

Pressure

“You know, always thinking about, oh my gosh, how is that affecting them?... should I have that I made that decision?”

New parents will weigh every decision with a lot of anxiety in order to try to be perfect.

Nancy

Empathy Map



NANCY
TEACHER/SUPPORT
GROUP LEADER FOR
NEW MOMS SINCE
PAST 40 YEARS

dividing moms into groups by baby's age is important

in-person groups meant longlasting bonds

new zoom groups provide convenience and broaden access

difficult to do anything as new mom. any ou have to take baby everywhere

women stress about getting back into careers after childbirth

"i am always most interested in mothers well being"

"i dont like the word support group" I used to always call it "mother-baby morning"

"moms always want to talk about their labor because they're processing that first"

sleep deprivation, feeding, anxiety, guilt, depression interlinked for new moms

Let moms choose what topics to discuss

"how are we going to get this opportunity to people who don't have transportation or computers?"

moms need support in coming up with their own solution

moms love meeting moms

important to let moms do the talking

self discovery is important for new moms

community important to new parents

parents need a way to get information from trusted people

progressive; says it feels like the "dark ages" to include only moms in support group

tackling unequal access to child support is important

even free program presents hurdles for new moms to attend

SAYS 

THINKS 

DOES 

FEELS 

constantly reassures the parents in the group

takes out time during her vacation to talk to us

constantly iterating on her group name, dynamics, etc to get better + better

stresses importance of privacy for new moms

incredibly devoted to her job

constantly iterates on pedagogy and questions status quo

includes moms AND dads in her "mother-baby mornings"

lights up when talking about the group babies growing up, staying in touch

passionate about sharing resources for her groups and advertising at hospital

soft-hearted and open

in-person vs online communities bring unique challenges

her job feels most fulfilling when it leaves a long-term impact on a mother-son relationship

mothers are first priority

can be challenging to get moms to overcome this new anxiety

feels blessed to be a pillar of support for new moms

any way of bringing parents closer together is important

feels a duty to help as many moms as possible as she was once helped

feels rewarding when mother tells her she "saved their life"

Observed

Inferred

Key Quotes & Insights

Key Quotes/ Insights

“If the mother is happy, the baby is happy”

Nancy always puts her mothers first, knowing that they need to take care of themselves first in order to support their baby

“I don’t like the word ‘support group’ – I used to always call it “mother-baby mornings...”

Nancy is mindful and recognizes moms don’t want to feel like they are in “need of support” but rather are just part of a community

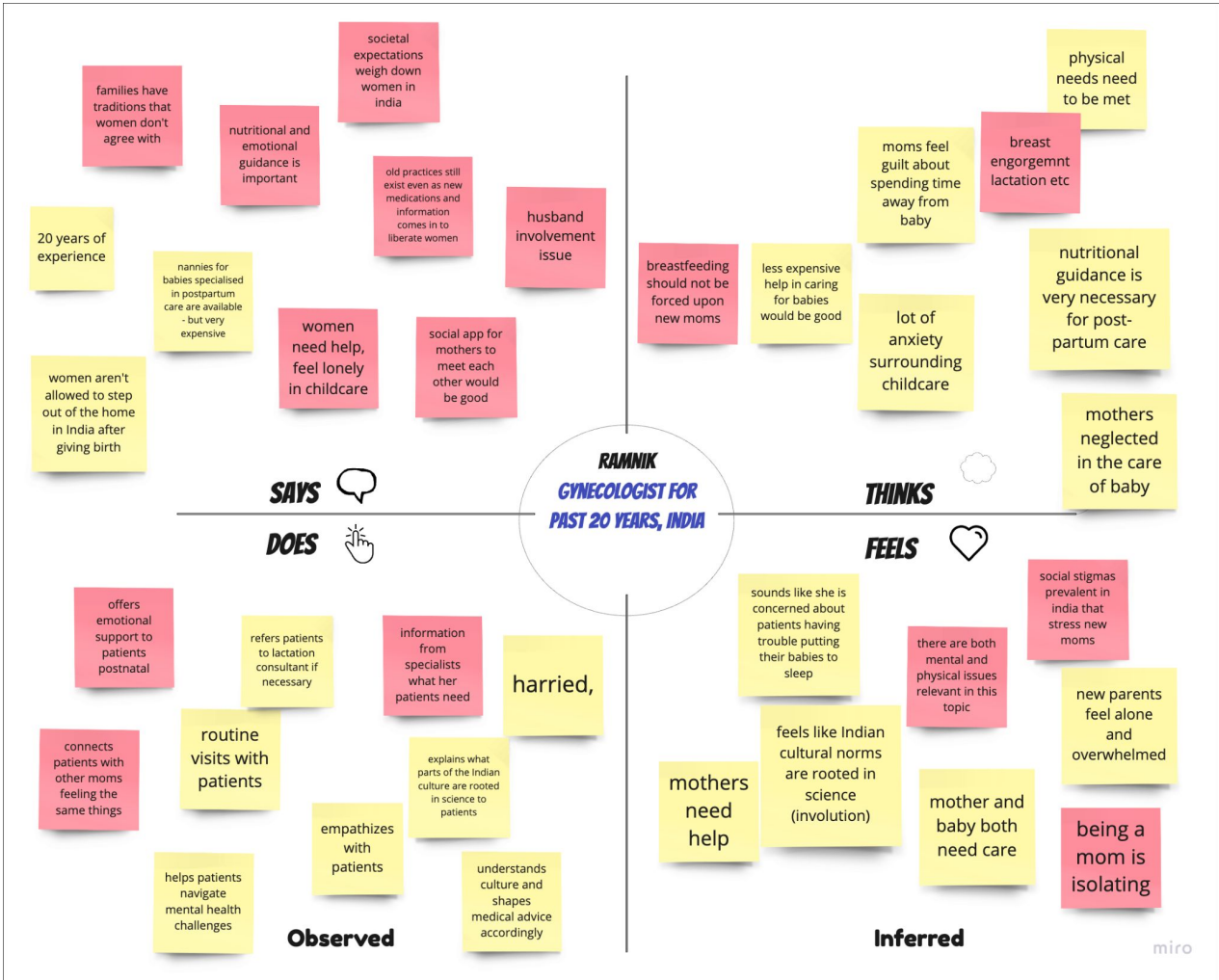
“How are we going to get this opportunity to benefit women who are not in the middle range? It is a challenge for people who don’t have transportation or computers...”

Despite being a free program, Nancy is aware of and saddened by many socioeconomic hurdles that women face with regards to access to the resources she offers

Ramnik

Empathy Map





Key Quotes & Insights

Key Quotes/Insights



Mental Health

"I have seen some of the patients feel alone and stressed because [the] baby doesn't sleep at night, and they're up all night feeding the baby."

Dr. Ramnik cares about her patients' mental health and worries about parents having to trade sleep for childcare.



Societal Neglect

"I've seen my patients very excited during the prenatal [period], but postpartum care is kind of neglected."

She worries about the potentially harmful public perception that mothers' work is done after childbirth.



Cultural Context

"So traditionally, in India, women are not allowed to step out of the home for at least six weeks, the time involution of all the organs is happening."

The doctor is from India, where cultural norms surrounding childbirth are closely linked to healthcare.

04

Summary

Key Insights about childcare

Self-discovery

Self-discovery is just as (if not more) important than outside advice

Support

A strong support group and network of peers can be critical for relieving stress

Age group disparities

Can't bundle all "childcare" together even if seemingly similar in age

Upcoming work



Inclusive interviewing

Seek out parents of kids with developmental disorders

Single or young parents?

Surrogate parents?



Narrow down target user

caregivers vs mothers vs teachers

newborn to 6 months? toddlers?



Filter needs

community aspect, sharing knowledge, education?



Experience prototyping

Test assumptions, refine needs



THANKS!

Any questions?

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