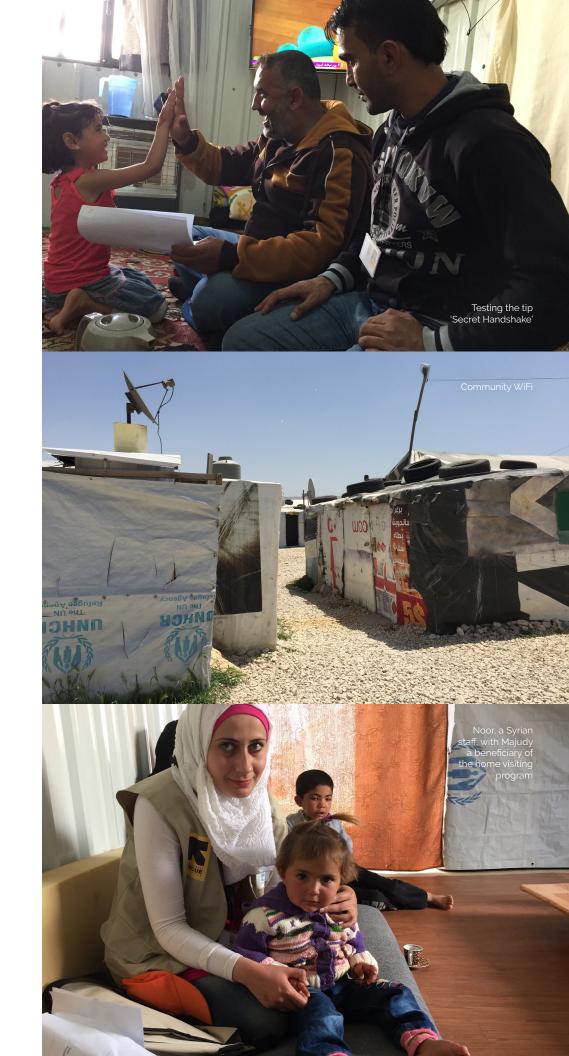


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## Table of contents

Executive Summary
Introduction
What is Vroom?
Parenting During Times of Crisis
Who is Our Audience and How Do We Reach Them? Meet our Users
Inquiry, Testing and Findings
Foundational questions of our study
Content and Media Creation: The first stage of language adaption
Content and Media Creation: The findings
Messaging and Channels: What information drives user
Messaging: Behavior Insights Trial
Channels
Seizing the Opportunity: Recommendations and next steps
Design Principles

## **Executive Summary**

Over 3.7 million Syrian children have been born into violence, poverty and displacement since the brutal war in Syria began over six years ago. Conflict and displacement dismantle social services, economic systems and family units with profound effects on the wellbeing of caregivers. Under these conditions, too many children lack stable, nurturing and enriching environments - including frequent interactions with caregivers that promote learning, and development. This case study provides a look at the process of adapting and piloting Vroom for Syrian refugee parents and families. Vroom empowers parents and caregivers of young children to turn everyday moments into brain building moments. While group-based parenting programs have been shown to be effective in a range of low-resource settings, such interventions are costly and logistically challenging in large-scale humanitarian crises where populations are dispersed across a range of contexts. Mobile technology and connectivity have become increasingly accessible, opening the door to new opportunities to help parents improve brain development right in their homes, and everyday lives. Vroom takes early brain science out of the lab and into the hands of parents in the form of easy, fun tips that layer onto existing routines like meal time, bathtime and time on the go. Vroom content is designed to be low-cost and scalable- harnessing the power of mobile technology through the Daily Vroom mobile application.

To maximize the reach and impact of existing parenting programs, the International Rescue Committee's Early Childhood Development team, together with a Design Lead from the Airbel Center, IRC's research and development lab, adapted and tested Vroom tips and delivery channels with Syrian refugees in Jordan and Lebanon. Vroom was designed to capitalize on daily moments that occur in the lives of busy, low-income parents in the United States. While Syrian refugee parents living in the Middle East face different daily environments and routines, they face a similar overall challenge: the struggle to find time to spend with children when facing pressure to provide for their families. This report is intended for practitioners, policymakers, donors and community members, who may use our key findings and recommendations to inform future adaptations and leverage existing media platforms to deliver critical content to improve nurturing care.

## **Testing and Prototyping**

The testing and prototyping methods were informed by both human centered design and behavioral science principles, and covered four broad themes: cultural appropriateness or relevance to the lives of Syrian families, mediums or type of media, channels to best deliver the content, and the framing of messages to spur engagement. This structure allowed us to not only test what is the most compelling content and what form that should take, but how will parents most easily access and interact with what they are seeing.

Vroom tips were translated into Arabic, field tested and refined again to ensure simplicity for low-literacy populations and to capture how parents actually speak. The text was then reviewed for technical accuracy by regional early childhood development experts. This material formed the scripts of live action and animated videos that were tested qualitatively through in-home interviews and quantitatively via a text message campaign and survey.

To test social media dissemination, the team launched a Facebook page to distribute a series of live action and animated instructional tips - this page attracted over 3,200 followers in only 9 days. Several WhatsApp groups were also created to cultivate and test more intimate group conversations around the Vroom tips. Additionally, the team worked with an Android application (further referred to as an app) designer to build a simple, offline-compatible mobile app with embedded videos to test with parents. All the platforms were evaluated using robust qualitative interviews and focus groups to gain deeper understandings of parents' motivations and goals, and to glean insights as to certain parenting and technology/media-use behaviors.

Finally, with the support of the Behavioral Insights Team (BIT), our study explored two different styles of message framing by monitoring the click-through rates<sup>1</sup> of 83,000 SMS messages sent out over two weeks to approximately 10,000 families.

<sup>&</sup>lt;sup>1</sup>The percentage of people who click on the link provided in the text message.

## **Summary of Key Findings:**

- Vroom adaptations hold great promise. Once adapted,
   Vroom tips are culturally appropriate and can build on what parents already know and do.
- Preference for video over text. Video was by far the most popular medium type, both live action and animation.
- Messages on brain development increase parental engagement. Small changes in message framing have meaningful effects on engagement rates. Providing information on brain development drives engagement.
- Both WhatsApp and Facebook are quick wins for gaining users and engaging parents in Vroom content.
   WhatsApp can even reach the most vulnerable or isolated, and both platforms create the necessary momentum and for spreading information at scale.
- Mobile applications likely not the most effective platform for reaching caregivers. While many people have smartphones, we found that the use of applications was lower than expected and often limited to WhatsApp.
- Television offers great promise. TV is the most widely used channel for information and entertainment - even more so than mobile phones. Most parents have specific shows they watch, and there is a great deal of co-viewing with children - a big opportunity.
- Vroom content can be integrated into direct services.
   Parents like the practical, simple suggestions offered by the tips, and these can be integrated into various in-person interactions service providers have with parents.

#### Recommendations

The key findings of this study point to an immediate opportunity to support a large number of Syrian refugee caregivers in providing the play and learning activities their young children need to develop and thrive.

- First, grow a loyal and motivated parents network by leveraging familiar and established technology platforms. Use platforms such as Facebook and WhatsApp to disseminate simple yet engaging videobased direct messaging on brain development and science-based facts that encourage parents to take-up the activities.
- Second, target more difficult to engage families by integrating Vroom messaging into existing programs, and by offering group parenting skills sessions and home visits. Successful program models can be used to attract additional resources for more resource-intensive programming.

Throughout each of these phases, rigorous monitoring and implementation research should be used to inform program modifications. Additionally, evaluation designs that are sensitive to contexts of conflict and displacement, and that explore changes in caregiving behaviors and children's development, will provide critical insights on how to improve services for displaced Syrian families.



#### Introduction

Maha fled Syria in 2012 with her husband as violence and war engulfed their city and daily existence became nearly impossible.

She thought it would be a temporary solution, but six years later they still live in a rented apartment with several other families in Lebanon. Her four-year-old son Ahmed and her two-year-old daughter Suha spend the majority of their time in their cramped apartment. There is no preschool or playgrounds nearby, Maha can't afford many toys or games for her children,

and they feel restless much of the time which strains Maha's patience. Ahmed and Suha are spending their earliest years in a constant cycle of stress and uncertainty.

Under these conditions, too many children lack stable, nurturing and enriching environments – including frequent interactions with caregivers that promote learning, and development. Prolonged and severe stress resulting from an accumulation of adverse experiences and the absence of stable, nurturing care in the first years of life can result in a toxic stress response—a disruption of biological and neurological processes during critical stages of development. Parents struggle to provide the care and stimulation young children need to mitigate the impacts of toxic stress, and to help them thrive. As a result, these children are at severe risk for this loss of potential that

will follow them throughout their lives: poor physical and mental health, cognitive deficits, and reduced economic earnings. This loss of potential could threaten the future peace, stability and prosperity of war-torn nations. Parenting programs that promote nurturing care and early learning can be effective in mitigating these negative effects of war and can improve children's long-term health, education and economic outcomes. While the IRC has a strong track record implementing parenting programs in conflict-affected settings, we have been exploring new strategies to respond to the sheer magnitude of war- affected children. By adapting Vroom for parents and caregivers displaced by the Syria crisis, the IRC hopes to reach parents at a greater scale with empowering suggestions on ways to leverage daily moments to support their children's development.

#### What is Vroom?

Vroom is a U.S. based, nationwide initiative that empowers parents and caregivers to turn everyday moments into brain building moments. Vroom takes early brain science out of the lab and into the hands of parents in the form of short tips, or activities, that layer onto existing routines like meal time, bathtime and time spent on the go. Vroom tips and content, spark joy and interaction while early language, literacy, numeracy and executive function based skills for children birth to five.

Each activity instruction is accompanied by a 'brainy background' explaining the benefit (based on based on the research from Vroom's advisory board) in simple, relatable terms. Parents in the United States encounter Vroom tips in a variety of ways - the goal is to "meet families where they are" through a suite of tools that includes a mobile application, an SMS service, physical material like tip cards and posters for use by direct service organizations and government systems. Vroom content is also scaled through creative integrations on consumer packaged goods, mainstream media and digital channels, reinforcing behavior and generating widespread understanding of brain development during the first five years of life, All tools and content are available in English and Spanish, with many of the tips and materials translated into other languages to meet the needs of parents within the United States and the growing international interest.

## Why Vroom is compatible with the IRC's work with displaced Syrian Families

Both the IRC and Vroom are seeking to shift the perception of the role of parents. From a role primarily defined by their ability to provide for children's physical needs (food, shelter) to an empowered role, responsible for nourishing children's ability to think, solve problems, express themselves, control their emotions, and develop healthy relationships with others. To

achieve this shift, parents need to parents need to feel validated and to see their own potential to build their young children's brains- they just need continual support and guidance. Vroom has developed a platform and method that can deliver these services to a far greater number of families than the IRC is currently reaching.

In 2016 alone, the IRC reached over 1.3 million displaced children in Jordan, Lebanon, Turkey, and Iraq, as well as inside Syria with educational services. Since 2006, the IRC's Child Protection and Education teams have worked together to improve children's outcomes through early childhood development and parenting programs across across 14 countries. Randomized impact evaluations show that IRC's parenting programs have made significant improvements by documenting an increase in the quality of caregiver-child interaction and the use of positive behavior management practices.2 In the Middle East, IRC's program monitoring data in Lebanon reported significant decreases in the use of violent discipline- both physical and psychological punishment.3

However, such interventions are costly and logistically challenging-parent struggle to attend group parenting sessions-given the contexts in which over 5 million displaced Syrians live. Communities are displaced, socially isolated and sometimes in remote areas where critical health and educational services are rare. Parents also lack access to traditional support systems normally provided by family and community, as conflict and displacement has shattered those structures as well. Yet mobile technology and connectivity is increasingly accessible. For example according to UNHCR, in Jordan refugees spend 10-20% of their cash distribution on connectivity.4 With the right program approach, this is an opportunity to help parents improve brain development right in their homes, and everyday lives. Vroom presents an opportunity to bring early childhood development programming to a much wider audience and have a greater impact compared to high-cost, intensive programming.

## Adapting Vroom content for displaced Syrian families

Vroom was designed to capitalize on daily moments that occur in the lives of busy, lowincome North American parents. While Syrian refugee parents face different daily environments and routines, they face a similar challenge: the struggle to find time to spend with children when facing pressure to provide for their families. Some daily Vroom moments are the same, like waiting to see a doctor and bedtime, but many can be adjusted to relate to the realities of Syrian families. The IRC conducted initial research to better understand the current social and technological landscape for Syrian refugees in Lebanon and Jordan in November and December of 2016. This initial research allowed our team to plan and execute a 5 month testing and prototyping on how to adapt the Vroom concept to this new context.

- <sup>2</sup> Sim, A., Puffer, E., Green, E., Chase, R., Zayzay, J., Garcia-Rolland, E. and Boone, L. (2014). Parents Make the Difference: Findings from a randomized impact evaluation of a parenting program in rural Liberia. New York, NY, International Rescue Committee
- <sup>3</sup> Murphy, K., Maignant S., Boone, L. and Smith, S. (2015). Parenting in Times of War. Early Childhood Matters. Bernard van Leer Foundation.
- <sup>4</sup> UNHCR (2016). Connecting Refugees: How Internet and Mobile Connectivity can Improve Refugee Well-Being and Transform Humanitarian Action. Geneva, Switzerland.

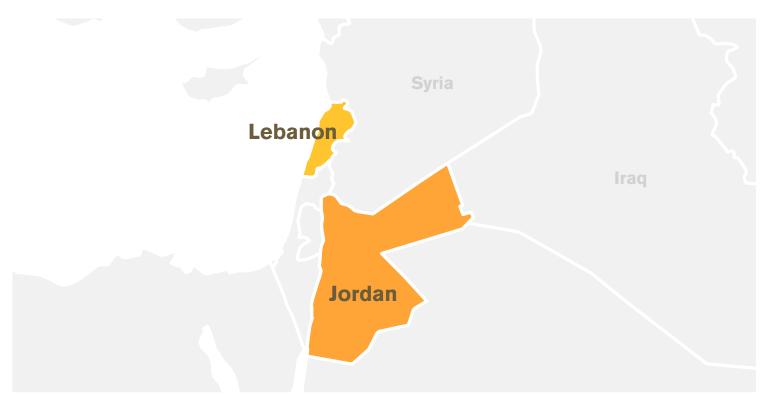
## Parenting During Times of Crisis

Parents are struggling with the stressful effects of living in displacement - particularly the constant uncertainty, lack of stability and the powerlessness they feel over their situation. In interviews conducted in 2016 and 2017 in Jordan and Lebanon, Syrian parents expressed to us that they feel a high degree of daily monotony, with few meaningful things to look forward to, and are focused on completing basic chores and daily tasks related to the struggle to find steady income and meet basic needs for their families. Economic and other struggles related to displacement places parents under stress that often feels difficult to manage. Social norms drive some parents to take a more serious approach, modelling responsible adulthood around their children, so playing hands-on interactive games with them feels unnatural. Coupled with this, many don't realize the importance of play and nurturing care in the early years. However, parents are strongly committed to providing a good education to their children and many have remarked that it was the main reason for leaving Syria.



I want to be better than anyone but I want my children to be even better than me.

ARABIC PROVERB



## Three displacement settings

While most refugees face similar challenges of stress, instability and poverty, there are distinguishing characteristics between contexts which are important when designing a program with the widest reach. To adapt content, media types and channels within Jordan and Lebanon we had to consider three types of situations that Syrian refugees are living in:



## Informal Settlements Jordan and Lebanon

Refugees have some freedom of movement and, in most areas, don't need permission from authorities to come and go. However, they are highly vulnerable to raids and expulsion from the land they have settled. Their access to information, services, and employment is low and inconsistent.



## Urban Areas Jordan and Lebanon

Refugees have some freedom of movement and greater access to services - internet, jobs, and markets - due to proximity. But cost of living - food, housing, transportation - is high and often leaves families in debt.



## Camps Jordan

Basics needs are provided for by the UN and NGO's, but movement and access to the internet is blocked or highly restricted. No one told me I should play with my kids, I just enjoy doing it... I have a neighbor who I advise to play with her children to help them develop, but she doesn't follow my advice.

- Rahaaf AZRAQ CAMP, JORDAN

What I've seen is that children are often neglected and their parents think it's silly to play with their kids, but my father never played with me and I suffered from this.

- Mohammed MAFRAQ, JORDAN

## Who is Our Audience and How Do We Reach Them?

# Meet our users

To understand the differences and similarities of refugees in each of these different contexts, we created these personas to illustrate the intricacies of the Vroom target audience. These sketches are composites of people we spoke with- brief summaries of their strengths, challenges, concerns and goals for their children. Most importantly they outline the specific opportunities and limitations each population faces. This allows program designers to understand and leverage the most appropriate technology to serve their everyday needs.



#### Kawthar

"I know play is important, but it's easy to forget when you're always working!"

Kawthar lives in a refugee camp and works full-time. She has many relatives in the camp and visits them frequently for coffee dates. Her social networks also extend to her digital life. She has the latest Samsung Android phone and though internet is banned in the camp, she can sometimes connect for short periods. Kawthar loves sharing pictures and videos of her kids on social media and via ShareIt, an app for sharing files, when online. She also plays cooking games on her phone with her kids. She has some understanding of early childhood development and knows that play is important. But she often doesn't have time to engage with her children because of her busy work schedule.

## **The Basics**

- (L) BUSY WORKS FULL-TIME
- (I) HIGH TECH ACCESS
- VERY LOW DATA ACCESS
- MEDIUM-HIGH LITERACY LEVEL
- & MEDIUM ECD KNOWLEDGE

உத்தி LIKELIHOOD OF ENGAGEMENT



#### Myriam

"Why should I spend time on play activities when I can't feed my kids?"

Myriam is struggling to provide the most basic needs for her family while living in an area that is quite isolated from any cities or towns where she can access services. She works sporadically doing manual labor on farms when opportunities are available. Myriam has no access to early childhood education or care and often doesn't know where her children are during the day. She has a low awareness of ECD principles and has a very limited understanding of what she can be doing to engage her children. She cannot read and sometimes asks teenagers in the neighborhood to read things for her if necessary. She has a basic Nokia phone and occasionally borrows her neighbor's smart phone to use WhatsApp to talk to, or voice message, relatives in Syria. It is possible to pay to access Wi-Fi, but there is nowhere to buy data near where she lives.

### **The Basics**

- GEOGRAPHICALLY ISOLATED
- (L) WORKS SPORADICALLY IN AGRICULTURE
- (I) LOW TECH ACCESS
- LOW DATA ACCESS
- LOW LITERACY LEVELS
- & LOW ECD KNOWLEDGE
- LIKELIHOOD OF ENGAGEMENT



#### Leila

"It's the teacher's job to educate my kids - it's enough for me to keep them safe and off the streets."

Leila lives in an urban area, is semi-literate and socially isolated. She doesn't know or trust her neighbors and has no family nearby. She uses her Android phone to stay connected to relatives in Syria, using WhatsApp to speak with them on a regular basis. There is no Wi-Fi, but she buys monthly data bundles. Leila is an engaged parent- she googles questions and answers to kids' schoolwork questions rather than ask others for parenting advice. However, she feels that educating her children is their teacher's job, and focuses on keeping them safe and raising them to be obedient. She is often nervous about her kids' safety and doesn't allow them to go outside to play.

## The Basics

- HUSBAND MAY WORK PART-TIME OR BE ABSENT OFTEN
- MOST WORRIED ABOUT SAFETY
- MEDIUM TECH ACCESS
- MEDIUM DATA ACCESS
- MEDIUM LITERACY LEVEL

International Rescue Committee

- MEDIUM-LOW ECD KNOWLEDGE
- LIKELIHOOD OF ENGAGEMENT



#### Dua'a

"I do whatever I can to give my kids the best education I can find."

Dua'a lives in an urban area and is very socially connected both in her immediate community and digitally. She visits friends regularly and their kids play together. She is highly literate and technically savvy with her latest Android phone. She and her husband both have their own phones, as well as a private Wi-Fi network in the house. They use WhatsApp to keep in touch with relatives and Facebook to read the news. Dua'a is aware of basic early childhood development concepts and the importance of play. She loves reading to her children and is always looking for more books that they can enjoy together. She also uses YouTube to find games and songs for her kids. Dua's regularly watches Egyptian soap operas and Bollywood movies on TV. She uses her phone calendar to set reminders for the TV shows she follows so she doesn't miss an episode.

#### The Basics

Rescue.org

- ( ENGAGED & PRESENT HUSBAND
- (I) HIGH TECH ACCESS
- III HIGH DATA ACCESS
- HIGH LITERACY LEVEL
- ♥ HIGH SOCIAL NETWORK MEDIUM-HIGH ECD KNOWLEDGE

2222 LIKELIHOOD OF ENGAGEMENT



Mohamad

"I love to spoil my kids whenever I can, and to show them new things."

Mohamad lives in an urban area with his family, works full-time for a local auto mechanic shop and has a college degree from Syria. He has his own Android phone and uses it to connect with family back home and to keep up on current news. He has some family close-by and has coffee with a cousin regularly and discusses parenting issues with him. Mohamad is engaged with his kids and likes getting to be the "fun" parent. Sometimes when he comes home he wrestles and plays with his kids- mostly his sons. He will also ask to see their homework on occasion to check for errors, but many evenings he is too tired from a long day at work. On his days off he takes his children out to buy gifts and sweets. Despite being a highly engaged father compared to most, he still thinks many aspects of parenting and chores are his wife's duty. He is willing to help out-up to a point.

### The Basics

- WORKS FULL-TIME AND IS OFTEN TIRED AFTER WORK
- (I) HIGH TECH ACCESS
- III HIGH DATA ACCESS
- HIGH LITERACY LEVEL
- ♥ MEDIUM SOCIAL NETWORK
- MEDIUM-LOW ECD KNOWLEDGE ≙66 LIKELIHOOD OF ENGAGEMENT

11



## Inquiry, Testing and Findings

## Foundational questions of our study

During field testing in both Lebanon and Jordan,<sup>5</sup> our initial inquiry consisted of three questions:

What type of messaging is most appealing and motivating for Syrian parents?

Which delivery channels feel most comfortable and accessible for Syrian families?

Do different delivery channels lead to different types of engagement with content?

<sup>&</sup>lt;sup>5</sup> This work was conducted during two trips each to Lebanon and Jordan. A total of 5 weeks was spent in both countries to conduct testing.

## **Content and Media Creation:**

# The First Stage of Language Adaption

Our first step was to adapt the Vroom content for the Syrian refugee context. We did an initial round of formal translation using one of the IRC's vetted regional language firms to translate Vroom's parenting tips and the text needed for the basis of our media prototypes. We then had a selection of the Arabic back-translated into English to review for accuracy and consistency.

In Akkar, Lebanon we shot a series of live action videos with a refugee mother and early childhood education facilitator, Umm Abdullah, and her daughter, Sadal, that took the parenting tips and brought them to life. Once they started practicing the lines we quickly found out that our script sounded too formal and not how people actually speak. By collaborating with Umm Abdullah and a trusted translator we began a more natural and creative process of honing in on the right language. This process also continued during filming of the videos.

The live action videos were followed by the creation of a similar series of animated videos, in order to compare the two mediums. We also created a comic strip with images and text that could be broken out and sent as image to describe activities, an app prototype and written cards. At this stage we did qualitative interviews while showing families various media types and solicited impressions and feedback.



Live action video



Animated video



Comic Strip



Image & Tex



Written Cards



App mockup

## Who We Spoke To

We qualitatively tested our material with:

40+ Moms

23+
Dads

ECD and Behavior Science Experts

20 Syrian IRC Staff

#### **Content and Media Creation:**

## The Findings

## "This is our Arabic!"

## Capturing how parents really speak to develop the most engaging material

While testing the tips in one family's home, we explained the "Babble On" tip. The mother's face lit up and she said, "I do this already! My husband teases me for spending all this time talking to my nine-month-old son since he's too young to understand, but now I know I was right to carry him around and talk with him while cooking and going about my chores. I could sense that he was understanding me and getting something from my attention to him but now that you confirm this, I feel so great." She turned to her husband with a huge smile and said, "I told you!"

Spoken language can be vastly different than the written word, particularly around a relationship as intimate as parenting. Translation was a multi-step, iterative process to get to the appropriate localized Arabic. To localize the tips, there were simple adjustments to make, such as modifying subjects-nouns like animals, foods, plants, and other household objects-so they would be familiar to the children living in displacement. Some Vroom tips only required this simple modification, using tomato or cucumber instead of apple or banana. Other activities required adding popular Arabic nursery rhymes to integrate cultural specific references that parents would recognize and connect with.

As we learned through the filming process, back translation was not capturing the level and consensus of language formality that needed to be established. By adding a round of field testing and a technical review, we could refine the language. To do this we shared 40 formal Modern Standard Arabic tips, and 40 simplified versions with our colleagues, the Syrian Outreach Volunteers, in the Azraq camp in Jordan. Our team of volunteers were made up of trusted and experienced colleagues, many who are refugees and parents themselves. We shadowed them as they tested out the games with their neighbors. The team with formal tips found that parents did not understand them if they read them aloud in formal Arabic. As when working on the video with Umm Abdullah, we learned that it was critical to avoid words that are not in common usage, so parents who are literate, but without higher education, could still understand instructions easily. This continual iterative process, to localize the language into the most realistic and natural way that parents speak, was how we eventually captured the most compelling and relevant material.

We also wanted to better understand whether the tips were culturally sensitive and appropriate. In focus groups, with the same team of Syrian outreach volunteers, we discussed in detail the range of daily moments when Vroom tips offer ways to increase the interaction and quality of engagement between parents and children. We discussed mealtime, getting dressed, bathtime, chores, shopping and playtime with parents. In focus group discussions, Syrian caregivers initially expressed skepticism about engaging children while cleaning, "young children around three nag their mothers to allow them to help out with sweeping but mothers often feel they are too young and won't be able to do the task." However, when we talked through individual activities and tried tips like 'doing dishes' and other activities that only require verbal prompting or chatting with the child, the volunteers welcomed the activities. The concern had been two-fold: placing additional burden on the already stressed mother, and the actual ability of a young child to complete a task while the mother is cleaning. Many mothers interviewed expressed pride when children could accomplish a task to help them, "five-year-olds help the most with sweeping and setting-up to eat a meal." After we poured over the individual tips, the team agreed which ones were appropriate. Another concern was talking about bathing, which could come off as slightly risqué. To address this, the language was edited to ensure the topic of bathing was presented in a delicate and culturally sensitive manner. This enabled us to include appropriate tips for bathtime activities, including singing and storytelling, highlighting bathtime as an important opportunity for play and learning.

The ECD program officer tested about 20 tips in homes with the translator and the Syrian

## **Media Prototyping:**

## **What Works Best?**

KEY FINDING

## Once adapted, Vroom tips are culturally appropriate and can build on what parents already know and do.

The foundation of working on the translation process proved to be useful in the development of content for each media type. Knowing how parents actually speak with their children helped to inform what to include and how to craft the content. Our next step was to learn what type of media would be most engaging for parents in explaining the content of the Vroom tips themselves. We brought a number of initial prototypes to the field with us, including live action videos, animated videos, written tips, illustrated tips, simple gif animations, and comic strip tips.

#### A note on live action privacy

In initial focus groups, some parents had expressed concerns over the privacy of the actress in the live action videos, and even the appropriateness of sharing content of a female actress among men/fathers. To tackle this, we proposed animation as an alternative video format, but the concerns about privacy were far from universal, and felt more isolated to the opinions of specific parents.

KEY FINDING

## Video was by far the most popular medium type, both live action and animation.





Still from animation video

Still from live action video

Overall videos resonated the most in our field testing by far. Most parents said that they'd prefer to see real-life, live action parents like themselves on-screen, but would be more likely to call their children over to watch animated videos with them. Hence, parents' views differed based on their desire to want to co-view the Vroom tips with their children. The popularity of videos as a medium could be because literacy levels are still low among the most vulnerable populations (the IRC's target population), so they easily hold the most interest and capture the audience. In this high-stress population, it is also possible that attention spans are further lowered, making it especially difficult to concentrate on less engaging media like written, illustrated, or even audio-based tips.

The written tip cards, illustrated cards, gif animations, and comic strips were far less engaging for parents, most likely because the low levels of literacy meant that anything requiring reading was a barrier for parents. The slight abstraction of the illustrations and gif animations also resulted in parents having a harder time immediately understanding the content of the tips.

teams' assistance. The Syrian teams would share the tip card for a parent to read (or read aloud if this parent was not comfortable with reading) and ask the parents if they would be willing to try the activity. This often prompted rich discussion of specific habits or routines that children in the home already do, such as bringing their father shoes when he appeared to be getting ready to leave the house. Parents used these anecdotes to demonstrate how much the child already understood even before she or he could talk, and to share that they already do stimulating activities with their children. Many activities match exactly, or are similar to Vroom activities. Some new activities would make for great Vroom tips such as how one grandmother describes that her young grandson helps to fold blankets and puts them away each morning. Perhaps a Vroom tip could prompt her to have a conversation about shapes, rectangles for example, as they fold up the blanket.

Afterwards the Syrian team continued to test a set of 85 tips with their own children, with neighbors and beneficiaries they visited as part of their roles with the IRC. They then ranked the tips on a scale of one to five, 1 being "I strongly dislike this activity" and five being "I like this activity and i will recommend it to my friends." Three tips were rated 1, nine tips were rated 2, five tips were rated 3, twenty-one tips were rated 4, and forty-seven tips were rated 5. Finally, two technical experts in the field of early childhood in Syria reviewed, revised and validated the technical accuracy of the tips.

\* \*\* \*\*\* \*\*\*\* \*\*\*\*\* 3 9 5 21 47

 $<sup>^{\</sup>rm 6}$  Ratings of Vroom tips

# What information drives user engagement, and on what platforms?

**MESSAGING: BEHAVIORAL INSIGHTS TRIAL** 

## How we tested messaging using a randomized controlled trial (RCT) via SMS

Once we discovered that videos were the most engaging type of media, we then explored different types of messaging that would most appeal to Syrian parents living in displacement. We wanted to find out if a certain type of framing of a message would drive more parents to click on the links to the videos. With support from the Behavioral Insights Team<sup>7</sup> we designed a randomized controlled trial to test two different framing messages (in other words, two treatment groups): The first message emphasized the benefit to the parents of engaging with the material, such as the enjoyment or fun, the parent might experience while doing the activity with their child. The second treatment group emphasized the brain development impacts these activities could have on children. This treatment group was based on the Vroom app's current standard of accompanying each activity with a "brainy background" in the platform, which emphasizes the benefits these tips and games have on the child's brain development.

In order to compare the two, we collected and compiled nearly 12,000 phone numbers from existing databases: 2,369 phone numbers of parents whose children are enrolled in the IRC's preschool program in Lebanon and 8,958 numbers of families with children under five that receive services from the community health program in Jordan. Each treatment group received 9 text messages over approximately two weeks. Text 0 was an introductory text with a link for more information and an option to opt-out of the campaign. Text 8 offered the opportunity to complete a survey and watch an additional video. Texts 1-7 were treatment texts: The framing of the message was slightly different based on parent versus science treatment conditions. All treatment texts (Texts 1-7) included a link to the same 1-1.5 minute video demonstrating a parenting activity from Vroom and adapted by the IRC for this context.

In order to measure engagement we tracked whether the recipient clicked on the provided link to the video and whether they subsequently watched the video. A total of 83,243 text messages were delivered over the course of the campaign.

Hello from the IRC!
Here is your first activity to help grow your child's brain. We hope that your child learns something useful, click here to watch a short clip: [link].

**GROUP 2: PARENT + PLAYFUL FUN FOCUS** 

Hello from the IRC! Here is your first fun game to play with your child. We hope you enjoy it, click here to watch a short clip: [link].

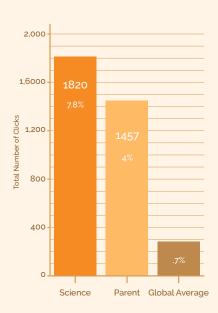
Small changes in message framing have meaningful effects on engagement rates. Providing information on brain development drives engagement.

Parents who received the science-based message were more likely than those who received the parent-focused text to click on the link provided in the text message and, subsequently, to watch the associated YouTube video. Across all texts, we see a difference in the total number of click-through rates between science and parent groups. Science-focused texts were clicked on 1,820 times while parent-focused texts were clicked on 1,457 times. Parents who received the 'science' message were also more likely to watch the YouTube videos, showing statistically significant increases ranging from 0.9 to 1.2 percentage points, for percent increases of 35 to 50 percent.

Engagement rates (click through rates) were nearly twice as high in Lebanon as in Jordan. The average engagement rate across texts in Lebanon was 7.8% versus 4.0% in Jordan. Possible reasons for this difference include different parent relationships with the IRC (for example, parents sending their children to the IRC's preschool 5 days a week may be more likely to be interested in a text message from the IRC than a family who receives visits from a community health volunteer every-othermonth), and potential differences in texting norms between Jordan and Lebanon. For example, there may be a difference between how parents in Lebanon engage with the IRC's preschool centers versus the way parents in Jordan engage with Health Clinics which could impact how parents view this kind of communication.

In the final text, parents were offered one final video and asked to fill out a survey to provide feedback for future programming. Those who received the science-based messages were 66% more likely to click on link in this message. Of those who filled out the survey, the overwhelming majority of respondents, 94.6% (N=87), answered affirmatively that they have been doing the activities, while 5.4% (N=5) said they had not. Of these, 92.4% (N=85) said they would like to receive messages like this in the future, while 7.6% (N=7) said they would not like to receive these kinds of messages in the future.

### Total Number of Clicks



We found that, for those messages that were statistically significant between 1.2 and 2.6 percentage points, for a percent increase ranging from 12 to 100 percent. With the exception of text 4, all text messages were statistically significantly different at p-values of 0.10 or less



Percent of parents surveyed who reported using the Vroom tips

<sup>&</sup>lt;sup>7</sup> The Behavior Insights Team is a social purpose company dedicated to the application of the behavior sciences, mainly in improving the functioning and services of government, but also non-governmental entities. Raj Chande and Lindsay Moore came on board to support the IRC with the application and testing of behaviorally informed messaging May- June.

## Click-through Engagement Rate by Treatment Condition



## **Findings:**

## What channels worked?

KEY FINDING

Both WhatsApp and Facebook are quick wins for gaining users and engaging parents in Vroom content. WhatsApp can even reach the most vulnerable or isolated, and both platforms create the necessary momentum and for spreading information at scale.

#### Channels

#### How we tested channels

Through a mix of prototyping, qualitative interviews and quantitative messaging testing we:

- Developed an Android mobile application prototype and tested it with refugee families for use in an offline version with embedded video content.
- Created a Facebook page and populated it with our videos and images. We created sponsored posts to promote content and attract users, then solicited feedback.
- Recruited a network of WhatsApp groups from several different sources- both online and in-person. This included Facebook page users, participants at Early Childhood Education centers, clinic waiting rooms, women's centers and from IRC volunteer groups. We sent tip content and follow-up questions to test engagement.

## RECAP: Our User Profiles (p. 10-11)

#### Kawthar

High tech, very low data access, mediumhigh literacy

#### Myriam

Low tech and data access, low literacy

#### Leila

Medium tech, data access and literacy

#### Dua'a

High tech, data access and literacy

#### Mohamad

High tech, data access and literacy

## **Top Choice**

## WhatsApp Group

WhatsApp groups are ubiquitous among cell phone users across the region. Nearly everyone we met used WhatsApp to communicate with family. Many parents are also part of WhatsApp groups as a way to communicate with their child's school and are moderated by teachers. Integrating Vroom into this platform can capitalize on the existing behavior among families, schools and teachers. WhatsApp is very low-cost to use with text-based messages, and is easy to use to send photos and recorded audio files for those with lowliteracy. WhatsApp is a social and engaging tool for parents with wide distribution due to the established network and familiarity with the technology. However, WhatsApp groups are limited to 256 users, so scaling this platform requires managing many different groups. This would require significant management costs to administer and moderate the group if aiming to reach users in excess of 10.000+.

The benefits of this platform are that it engages users across a broad spectrum appealing to people in situations similar to Dua'a, Mohammed and Leila, and also has the potential to reach users like Kawthar too. Even Myriam might occasionally use Vroom when she borrows her neighbor's smart phone.

- FEELS SOCIAL AND ENGAGING FOR PARENTS
- (5) DIFFICULT TO SCALE A DISPERSE NETWORK
  WITH SIGNIFICANT MANAGEMENT COSTS
- **EASY TO USE AUDIO MESSAGES**
- WIDE DISTRIBUTION AND DEEP EXISTING FAMILIARITY WITH THE TECHNOLOGY

## **Top Choice**

## Facebook

Facebook proved to be a very useful tool for engaging a large number of parents quickly. Our team built a simple Facebook page and targeted sponsored posts to areas where the IRC has active programs. We were able to attract 9,000 followers in just 2 weeks - a mix of refugee parents and host community parents. This platform is likely not the best way to target the hardest to reach, as it requires a medium to high level of literacy and high data/tech access, but it is a useful dissemination tool for reaching a wide audience. It is a highly social platform that encourages engagement: parents can interact with one another and share tips from their own lives, while some even used direct messaging to ask for advice on specific topics. Videos and posts are also easily searchable.

While Facebook will likely not be accessible to users like Myriam, it will quickly catch-on with others like Dua'a, Mohammed, Leila and even Kawthar (during the times she can access the internet)

- FEELS SOCIAL AND ENGAGING, AS WELL AS EASY TO SHARE FOR PARENTS
- (§) REQUIRES A MODERATE INITIAL INVESTMENT AND OPERATING COSTS
- NOT IDEAL FOR HARDEST TO REACH USERS
- WIDE DISTRIBUTION AND EXISTING FAMILIARITY

While many people have smartphones, we found that the use of applications was lower than expected and often limited to WhatsApp.

## Mobile Application

Walking users through downloading and navigating even a very basic app that average refugee parents could download and use was more difficult than anticipated given the huge number of smartphones we saw in use. We discovered that the majority of parents that the IRC serves, who are among the most vulnerable, are only familiar with WhatsApp and need extensive oversight and assistance to access a new app. One positive aspect is that an application can be used offline, so could work well for parents in a camp setting or for others without regular access to the internet. At the same time, it would likely not be a good solution for reaching scale because of the human resources required to engage users.

The benefit of this platform is the ability to use it offline, which is ideal for many located in camp settings. Yet an app would likely require in-person tutorials to familiarize them with the application. Internet access would also need to be made available for downloading the program. So a solution like this would be ideal only for users like Kawthar, making the investment costs high for a just one segment of the target population.

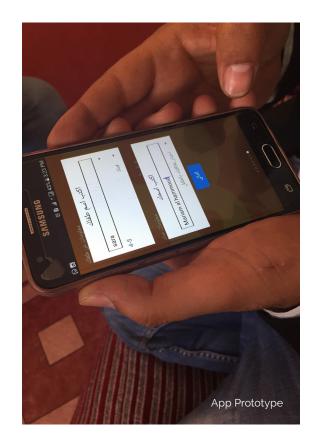
- (\$) HIGH INVESTMENT COSTS
- UNFAMILIARITY WITH APPS AND HOW THEY WORK, DEMANDS HIGH LITERACY LEVEL
- IDEAL FOR OFFLINE USE

## SMS

We experimented with text-only SMS messages and with messages that linked to online videos. SMSs are useful as they don't require the internet to use, but we found that most users receive a high volume of spam, and it's difficult to engage users through SMS, as it is not viewed as a social platform.

The cost of sending texts is significant and would be a barrier to scale, and low literacy users would not be able to understand them. Together with the less-social aspect of this channel, makes this one of the least engaging options.

- NOT A SOCIAL PLATFORM
- \$ HIGH COST FOR USERS
- REQUIRES MEDIUM LITERACY
- NO INTERNET REQUIRED- IF TEXT



KEY FINDING

TV is the most widely used channel for information and entertainment - even more so than mobile phones. Most parents have specific shows they watch, and there is a great deal of co-viewing with children - a big opportunity.

KEY FINDING

Parents like the practical, simple suggestions offered by the tips, and these can be integrated into various in-person interactions the IRC has with parents.

## Television

Television is a difficult channel to prototype, but we improvised by using a portable projector to screen our live action videos. During these simulated in-home viewing events families responded positively and were very engaged with the content. In the Syria response region, household television penetration rates exceed 90%.8 This was apparent when we conducted field testing and even parents remarked on how they depend on TV. "It's difficult because there are no parks or playgrounds, just our cramped homes so they spend a lot of time in front of the TV..." remarked Farida in Akkar, Lebanon.

We feel strongly that it holds a great deal of potential for wide and deep reach with refugee parents. Most parents have specific shows they watch, and there is a great deal of co-viewing with children- a big opportunity. Piloting a TV program requires high investment costs and intensive development to build a quality show with appealing stories. However, there is potential to reach scale through broadcast, which drives down the cost per beneficiary.

Television is the one channel that would have the potential to reach all our intended usersparticularly the hardest to reach like Myriam.

DIFFICULT TO ENGAGE





IN REACHES THE WIDES POSSIBLE AUDIENCE

## In-person integration

The IRC Lebanon program conducted a five-session parenting skills series with 300 parents from January to June 2017. Parts of the manual were written using Vroom tips in order to illustrate the ways that children learn from playful and nurturing daily moments. Based on qualitative feedback from the facilitator, the activities were well liked due to their practicality. "Parents liked the Vroom activities. Sock Sorter, in particular. They told me they used to think there is no meaning to socks in the home, they're just for wearing, but actually they have meaning." (Nada, an Early Childhood Education Officer who facilitated parenting session using Vroom tips.)

During the testing phase, we also spoke with families in the waiting room of a health clinic or after the end of a sewing class at an IRC women's center. We introduced Vroom, talked a bit about the importance of ECD, shared key statistics on early brain development and solicited phone numbers to create a WhatsApp group to share more tips with parents.

In-person interaction can 'activate' Vroom for a group or community, who can then receive tips through social media, or can be used to explain a specific set of tips to parents and encourage them to try them out. Based on the qualitative research, we found that Vroom can be activated in a variety of ways. However we think Vroom bite sized and adaptable content is best suited for distribution through the wider platforms above. For the hardest to reach communities, technological solutions will likely struggle to gain traction so folding Vroom into existing parenting programs that the IRC is already invested in can introduce a shift in social norms to support nurturing and positive parenting.

<sup>&</sup>lt;sup>8</sup> Gallup, 2014; Open Society Foundations, 2016; Aoun, 2016; MICT, 2014

## **Seizing the Opportunity:**

## Recommendations and next steps

The findings detail a clear opportunity for use of an adapted, culturally appropriate version of Vroom for displaced Syrian families.

- First, grow a loyal and motivated parents network by leveraging familiar and established technology platforms. Use platforms such as Facebook and WhatsApp to disseminate simple yet engaging video-based direct messaging on brain development and science-based facts that encourage parents to take-up the activities.
- Second, target more difficult to engage families by integrating Vroom messaging into existing programs, and by offering group parenting skills sessions and home visits. Successful program models can be used to attract additional resources for more resourceintensive programming.

Throughout each of these phases, rigorous monitoring and implementation research should be used to inform program modifications. Additionally, evaluation designs that are sensitive to contexts of conflict and displacement, and that explore changes in caregiving behaviors and children's development will provide critical insights on how to improve services for displaced Syrian families.

Recommendations based on our field testing and ready for immediate roll-out



## Launching a network

The below activities can begin immediately and will start a groundswell of interest among parents that already actively use these platforms to share information.

- Incorporate Vroom content into existing parent-teacher WhatsApp groups.
- Create a facilitator's guide and package of content for WhatsApp group administrators/moderators.
- Formally launch a Facebook page with daily posts, contests and other engagement strategies.
- Build new WhatsApp groups networks by promoting through Facebook community.

Next phase activities that require more investment can include:

- Offer Vroom WhatsApp opt-in to partner and IRC programs.
- Create a Facebook live or audio-video advice column providing tailored parenting support from a specialist. F.A.Q.s would be publically catalogued and searchable.
- Create a structured WhatsApp "curriculum" tailored to specific age-groups with extensive video content.
- Address parent stress through a series of parent-focused tips on stress reduction techniques.

### Recommendations for future testing



## Growing the network long-term

Building on a more developed network of users, these more intensive programs will bring harder to reach families into an already supportive and growing community.

- Work with local writers to pilot a series of tips with a narrative storyline (possibly Koran-based).
- Air a series of broadcast TV-based PSAs which demonstrate tips in relatable daily moments.



## Creating a household name

These are activities that will require more intensive testing but have the potential to bring in hardest to reach families.

- Include in-person interactions: playgroups, father's' field days, homework-help mentors, local ambassadors conducting group sessions and home visits.
- Podcast drama series featuring a relatable role model mother.
- Create and disseminate a storybook series that depicts playful moms doing Vroom activities, with a call-to-action at the end of each story about how to do the activity and its benefit for ECD.
- Develop an offline-capable mobile application with extra content and advice.
- Partner with well-known daily-life brands that will include Vroom tips on packaging and marketing materials.



A series of more costly and labor intensive programs that would invest significant resources to capture the largest audience for Vroom.

- Pilot a basic literacy program to empower parents to engage more in their kids' education.
- Build stationary or mobile play spaces which integrate parenting tips into built environment.
- Provide in-kind Wi-Fi router kits which generate income for local ambassadors who, in exchange, promote Vroom among clients.
- Develop a cooking show where Vroom tips are modelled, while introducing new recipes.
- Produce a soap opera featuring with mothers who use Vroom tips.

## Design Principles

It is important to note that all of these recommendations rest on the inclusive, human-centered design principles that drove the inquiry and testing of our work. We learned that by listening and co-creating with Syrian families, Vroom was bringing them into a conversation, rather than a passive lesson for them to absorb. We learned that we could reach the most parents and keep them engaged by following these simple guidelines:

## Always show "people like us"

Let parents see themselves on-screen: "Umm Abdullah could be any one of us"

## Let parents brag

All parents love boasting about their children: make it easy for them to show off the evidence of their kids' progress and development

### Remind, don't tell

Phrase instructional messages as 'reminders' rather than lessons to avoid judgmental tones

## Harness the power of stories

Use parents' love of narratives, proverbs, songs and soap operas to create stories that pull parents in and encourages co-viewing with children

## Be engaging first

Focus on finding ways to captivate and hold busy parents' interest

## **Build personal connections**

In a world of uncertainty, become a trusted, personal source of information for parents

Many of the parents we talked to were amazed to see onscreen characters that looked like them, as was the case with the videos we shot with Umm Abdullah and her daughter. They commented that it was the first time they'd ever seen someone like themselves on a screen, and that this was extremely exciting for them. It created an instant connection. This illustrates a key theme in our design principles, our findings and reflects back to why Vroom has found previous success: by reinforcing the idea that parents already have a foundation for what they need to foster their children's development. Collaboration with other parents and the wider community, together with input from experts, supports parents with the knowledge and confidence to increase the nurturing quality of the moments they already have with their children. Vroom does all this by providing the scientific underpinnings so they understand why what they do is important to early learning and development.





Examples of Vroom materials tested in Jordan and Lebanon



## **ANNEXES**

Blog posts on Vroom for the Syria Response

Adapting Parenting Programs for Children Displaced by the Syrian Crisis

10 Things We Did to Translate and Localize Vroom's Early Childhood Parenting Tips

A sample selection of the final <u>Vroom tips in Arabic</u>

Play and Learn Vimeo channel where the seven videos can be viewed



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