

RESEARCH FINDINGS

How can we improve communications between immigrant parents and the schools their children attend?

EXECUTIVE SUMMARY

This goal of our research was to identify existing problems with the communications between immigrant parents and the schools that their children attend, to generate insights and to inform design principles for our future product. All data in the study was gathered from two expert interviews, participant interviews with three teachers and three immigrant parents, 16 survey responses from parents and 38 survey responses from teachers, as well as our secondary research. A competitive analysis was also conducted with the Parent-Teacher Home Visits project to identify design considerations for our future design.

The following are the 5 high-level key insights generated from our study, further details of the insights can be found in the results section:

- Parents and teachers have limited time to dedicate to effective communication.
- Constructive communication requires sensitivity to both culture and circumstance.
- Current infrastructure doesn't adequately support communication between immigrant parents and teachers.

- Inability to prioritize information leads to simultaneous information overload and information blindness.
- Teamwork between teachers and parents requires mutual trust and respect.

Based on the insights, we created design principles for our future solution:

- Be efficient
- Be convenient
- Promote cultural respect
- Mind the language gap
- Build relationships
- Be flexible
- Make information available
- Support information processing

We will use these principles and additional analysis of our data to guide our design decisions throughout ideation and testing.

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INTRODUCTION

Parental involvement is a significant factor in the academic success and well being of their children (Beauregard et al., 2014; Mapp & Kuttner, 2013; Weiland et al., 2017). Having parental involvement helps lower-achieving students improve their studies significantly (Sirvani & Hosin, 2007). Parent-school communication also serves as a bridge for children between the different environments of home and school, alleviating pressure on the child to assume separate identities rather than being a single coherent person (Villegas & Lucas, 2007). Communication encourages parental involvement and helps establish strong working relationships between teachers and parents (Graham-Clay, 2005).

Immigrant parents and teachers of their children have unique communication issues. First and foremost, language fluency is a barrier. Parents whose first language is not English generally have difficulties in English-language meetings (Turney & Kao 2009), and would be more comfortable speaking their native language instead (Castillo 2009). Secondly, certain communication methods are less appropriate for certain kinds of information (Beauregard et al., 2014). To talk about serious issues, some immigrant parents prefer more face-to-face communication (Beauregard et al., 2014). However, the style of communication varies from culture to culture. Some parents want more in-person communication in addition to telecommunication

(Beauregard et al., 2014). On the other hand, some immigrant parents support their child's education from home rather than showing up at school — which can be misinterpreted by teachers as lack of interest (Huss-Keeler, 1997). Some immigrant parents do not feel like equal partners in education with teachers and complain that parent-teacher conferences are too short or have the teacher talking the most without listening to the parent (Beauregard et al., 2014). In addition to culture, the length of time an immigrant has been in new place impacts their ability to cope in their environment (King-Yin Wong, 2015); immigrants have more difficulties than natives of same ethnicity (Turney & Kao, 2009). Generally, immigrant parents are more likely to feel unwelcome at their child's school (Turney & Kao, 2009).

Teachers of immigrant students also have unique communication issues, such as ethnic bias (Huss-Keeler, 1997). Teachers are less likely to contact immigrant parents, especially regarding academic success (Cherng, 2016). Math and English teachers are also less likely to contact immigrant parents about academic and behavioral issues (Cherng, 2016). However, immigrant parents' often attribute communication difficulties to the teacher's personality (Beauregard et al., 2014). In addition, teachers often lack empathy for immigrant student and parents. Teachers do not believe that

immigrant students have unique needs (Kurbergovic, 2016), and make normative assumptions about families of immigrant students, such as the availability of the parents. Parents whose primary language is not English are generally more likely to report that meeting times are inconvenient (Turney & Kao, 2009). Teachers might also assume access to technologies such as the Internet (Graham-Clay, 2005). The education of teachers themselves is crucial to good engagement with parents, but teachers often lack such training, especially regarding crossing cultures (King-Yin Wong, 2015; Huss-Keeler, 1997; Graham-Clay, 2005). However, a general knowledge of a culture is not enough to establish empathy; communication, interaction between individuals, is necessary for understanding and helps eliminate bias (Villegas & Lucas, 2007).

Possible solutions to the aforementioned problems

RESEARCH QUESTIONS

- How do immigrant parents and the schools their children attend currently communicate? What roles do each of the parties play?
- What are the current problems with communication between immigrant parents and the schools their children attend? When do they occur, and what are the causes?
- What communication preferences do immigrant parents and teachers have?
- What are the attitudes of immigrant parents and teachers toward education, students, and each other?
- What is lacking in the training of teachers regarding relations with immigrant parents?
- What technology is already available for communication between immigrant parents and the schools that their children attend?

have been tested or proposed. Graham-Clay (2005) suggests that schools and teachers provide communication in several languages, such as through multilingual hotlines or phone trees. Villegas & Lucas (2007) recommends incorporating immigrant students' own culture in the classroom to create a cohesive environment for immigrant students. They also advocate for conducting home visits and community engagement to promote understanding and give immigrants a place to express their feelings and aspirations.

Every school district and school are made up of different people, each with their own needs and expectations. In order to find the most effective solution at a local level, we are limiting the scope of our inquiry to Seattle Public Schools. In doing so, we hope to uncover:

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EXPERT INTERVIEWS

DR. SOOJIN OH PARK

Dr. Park is an assistant professor at UW's College of Education. She had a doctorate of education from Harvard University's Graduate School of Education. She has experience teaching in both inner-city and independent progressive schools. She has studied education across cultures in the US and abroad in low- and middle-income countries. Dr. Park is of particular interest to our project because she focuses on Early Childhood and Family Studies, Immigration & Schooling, and Educational Policy.

DR. ANN ISHIMARU

Dr. Ishimaru is the Assistant Professor at the University of Washington's College of Education. She received her Doctor degree in education from Harvard Graduate School of Education. Dr. Ishimaru's scholarship focuses on the intersection of leadership, school-community relationships, and educational equity in P-12 systems. Her work focuses on improving educational leadership—both formal and family/community—to create equitable educational environments, with a particular focus on students, families, and communities who have been historically marginalized in education.

COMPETITIVE ASSESSMENT

PARENT-TEACHER HOME VISITS PROJECT

The Parent-Teacher Home Visits Project is a grass-roots movement to implement a strategy of building relationships between teachers and parents to improve academic achievement and emotional well-being of the student. The strategy involves having teachers visit parents twice a school year: once for understanding the parent, and another to develop a game plan for both classroom and home support of a student.

The project has five “non-negotiables”:

- Visits are voluntary for all
- Educators are trained and compensated
- No students are targeted
- Focus of the first visit is sharing hopes and dreams
- Educators go in pairs and do reflection

We assessed Parent-Teacher Home Visits since its goals closely align with our own: to facilitate engagement and teamwork between parents, students, and teachers. The program is similarly aware of cultural and socioeconomic differences that may lead to unconscious bias, a problem for immigrant students and parents that we have confirmed in our secondary research.

Criteria and Assessment

In order to evaluate Parent-Teacher Home Visits, we focused on how easy it was to establish two-way communication with a parent using the program from a single teacher’s perspective. Our main criteria were agency, financial cost, time required, and sustainability. We found that the program requires

schools or districts to fund and oversee the process. Training sessions last at least 3 hours, and it takes months to complete one cycle of the program. Once teachers have gained enough experience with the program, they can train to become trainers for other teachers.

Parent-Teacher Home Visits is a wonderful program overall, but we did notice some pain points. Overall, it is difficult for individual teachers or families to initiate the process due to its top-down logistical nature. Not all students’ families can necessarily be visited since the teacher must provide their own transportation, bring a partner with them, and have the cooperation of the parent. Language and cultural barriers are also possibly present in the visits. It was not clear how communication was supported between visits in the program.

We appreciated Parent-Teacher Home Visits policy of not targeting a specific population when implementing the program, even though it strategically accommodates minorities. We also liked how the program prioritized building relationships through voluntary participation. An interesting aspect of building relationships in Parent-Teacher Home Visits is the requirement for teachers to reflect on their interactions with parents. Finally, we admired the opportunity for teachers to become trainers of other teachers.

In our design, we will aim to emulate the ways Parent-Teacher Home Visits prioritize building relationships, accommodate minorities, make room for reflection, and sustain itself over a long period of time. We hope to avoid the frustrations of a top-down program by designing our solution to provide bottom-up agency.

PARTICIPANTS

POPULATION

We had two groups of participants for our user research:

Teachers

- Be currently teaching at least one first-through-2.5-generation student
- Teaching kindergarten through 12th grade

We tried to find teachers from elementary schools mostly because there is a larger quantity of structured communication between teachers and parents during that phase, but also since parent involvement in school tends to drop off when the child grows older.

Parents

- Moved from another country to the US at age 18 or older
- They currently have a child enrolled in K-12

We wanted to interview immigrant parents who came from different language culture as adults who encounter communication problems with the schools that their children attend.

RECRUITING

Our original recruitment plan was to find parents and teachers through our experts at UW College of Education, and contact with NGOs in Seattle that works with immigrants and/or refugees.

Adjusted recruitment plan:

Although we wanted to primarily speak to elementary school teachers, our contacts at the UW College of Education were unfamiliar with Seattle Public Schools and couldn't help us find participants. We had to rely on our own networks and broadened our search to include K-12 instead of only K-5 teachers. We spoke to one elementary school teacher, one middle school teacher, and one high school teacher.

We encountered a similar problem in recruiting immigrant parents. The organizations we contacted were unable to help us find participants, so we relied on Facebook groups and our own networks. We spoke to three immigrant parents: one whose youngest child is in elementary school, one whose youngest child is in middle school, and one whose youngest child is just finishing high school. This gave us a much wider range of data and helped us explore the edges of our original problem space.

DATA COLLECTION

SURVEYS

We distributed surveys to parents and teachers through Facebook groups, Reddit communities, Craigslist, and Slack. We had 38 teacher respondents and 15 parent respondents. Surveys were made available in other languages when requested.

We used surveys to find out:

- What media people used to communicate
- How people prefer to communicate
- Content of communications
- Goals of communications

ONLINE DISCUSSIONS

When distributing surveys on Reddit, we found that many users participated in comment threads of our postings, particularly in /r/SeattleWA, /r/Teachers, and /r/AskParents. Participation ranged from creating and voting on posts discussing controversial topics such as English-first/only policies, to a 1000-plus word essay on one's personal experience. These anonymous posts revealed unfiltered feelings parents and teachers had.

ARTIFACT INQUIRY

Artifact inquiry draws elements from artifact analysis, contextual inquiry, and narrative research. In essence, it is an interview centered around artifacts

as a means of gathering data. In some sense, it is a way of short-circuiting a diary study.

We used artifact inquiries to:

- Identify possible concrete problems that we have the ability to address regarding the communication between immigrant parents and the schools their children attend
- Identify what communication mechanisms and attitudes are related or unrelated
- Identify what a good communication system might be like for schools and immigrant parents
- Identify what technology exists that we can leverage for our solution.
- Look at actual communication artifacts within the parent/teacher's context and evaluate their appropriateness

We conducted artifact inquiries with 3 parent and 3 teachers. Each session lasted 45 to 75 minutes.

Before the session, we asked send parents and teachers to gather communications they've received from their child's school (vice versa for teachers). We also asked them to fabricate/duplicate any communications they've sent to their child's school (students' parents for teachers) if they did not have the original. We made every effort to respect the privacy and comfort of participants and the parties they communicated with.

RESULTS

PARENTS AND TEACHERS HAVE LIMITED TIME TO DEDICATE TO EFFECTIVE COMMUNICATION.

“Maybe it’s ten [minutes]...but you have like no time to tell them everything.” —Teacher 2 on the subject of Curriculum Night

Teachers don't have enough time to support students, parents, and themselves (in both work and life) as much as they'd like to.

Teacher 1 said he works 10-12 hours outside of his contract hours. Compared to back and forth communication with a helicopter parent for 2 hours, he would prefer preventative communication to get more time on giving better feedbacks to students.

Teacher 3 said being a parent makes a difference in how much time you have.

Some parents have schedules that prevent them from some ways of support or involvement.

Parent 1 said Participation opportunities at school are scheduled during work time.

Dr. Park said low-SES families are more likely to have non-traditional work hours, work somewhere with less possible job growth, and in stressful environments. Even when they have time, parents may be too tired to spend time teaching their children. Research shows that while many low-SES mothers are spending most of their time with their children on basic care, while high-SES mothers are able to spend more time on interacting with their child.

CONSTRUCTIVE COMMUNICATION REQUIRES SENSITIVITY TO BOTH CULTURE AND CIRCUMSTANCE.

“One thing that teachers can do is acknowledge that differences are not deficiencies.”—Dr. Soojin Oh Park

Immigrants come from different cultures and SES, which all have different needs, wants, and expectations of education.

Dr. Park said that immigrants come from a wide range of SES, and their experiences differ by SES as well as culture.

Teacher 1 mentioned that sometimes there are cultural differences regarding the role of the parents. Even educated immigrant parents may still have cultural disagreements with teachers.

Cultural training can be helpful but not sufficient for a teacher to understand an immigrant parent's perspective.

Dr. Ishimaru said that just because teachers have language training doesn't mean they fully understand cultural context.

Villegas and Lucas mentioned that general knowledge of a culture isn't enough to establish empathy, communication interaction between individuals, is necessary for understanding.

Teachers may have biases regarding immigrant students, resulting in an altered pattern of communication with parents either in frequency or topic.

Huss-Keeler mentions that teachers of immigrant students have ethnic bias.

Cherng says that teachers are less likely to contact immigrant parents about academic success, while Math and English teachers are less likely to contact immigrant parents about academic and behavioral issues.

Different priority levels, topics, and scope will affect what medium is most appropriate.

Beauregard et al. say that to talk about more serious issues, some immigrant parents prefer more face-to-face communication [Beauregard et al].

“Have to call because they can't respond to email in a timely manner” [Parent Survey 8].

CURRENT INFRASTRUCTURE DOESN'T ADEQUATELY SUPPORT COMMUNICATION BETWEEN IMMIGRANT PARENTS AND TEACHERS.

“PTSA makes me feel like sometimes you need to be in their little circle... Even if you want to participate more, it doesn't mean they will let you.” —Parent 1

Immigrant parents have alternative channels that have different strengths and weaknesses from mainstream channels.

Parent 2 and Dr. Ishimaru mentioned that Immigrant families tries to create a strong community where they share information or generate ideas that would help their kids succeed in school.

Parent 2 said that knew wechat groups with some school, but her WeChat friends' children didn't go the same school.

Parents want information the school provides to be easily integrated into their own workflow ecosystem.

Parent 1 wanted the child's activities to auto-sync to his digital calendar.

Parent 3 mentioned that regardless of the school calendar that she didn't care about, she wanted her child's school activities to be synced to her calendar.

Official channels do not always meet the needs of immigrant parents.

Parent 3 mentioned that her child's teacher might not have shown up at the PTA meetings.

Parent 1 thought that PTSA is political and cliquey, suggestions won't be taken if the parent is not with- in the circle. Parent 2 didn't really participate PTSA meetings and school events due to time conflicts. Sometimes he did not understand what's going on at PTSA meetings.

Access to resources and technologies is useless if parents and/or teachers don't know they exist, don't know how to use them, or don't use them.

Teacher 2 mentioned that Immigrant or poor fami- lies don't know resources for information even exist.

Teacher 3 said that some staff are very tech savvy, but some are not at all.

Language is an important factor for the ability and willingness to communicate.

Teacher 2 and Teacher 3 mentioned that language barrier prevents immigrant parents from initiating communication.

Teacher 1 said that language and education over- comes logistical communication issues. There are no major differences in immigrant's communication with teacher if English is proficient.

INABILITY TO PRIORITIZE INFORMATION LEADS TO SIMULTANEOUS INFORMATION OVERLOAD AND INFORMATION BLINDNESS.

“The more detailed and granular the blog gets, I think: a) the [less] likely people are to read it, and b) the longer it takes to write.”—Teacher 3 on keeping parents informed

Teachers can't see how parents interact with sent information.

Teacher 1 was not sure if parents read or received email.

Teacher 3 thinks that information is filtered through students who inform their parents.

Schools don't always provide the information parents want.

Parent 2 mentioned that in terms of frequency and content, teacher communication drops when the child gets older. The school relies on high schoolers to send information to parents; if parents don't have all the information they want, they won't know how to support their child.

“If the teachers would post accurate information on the webpage about what the hell is going on in their classes, parents wouldn't have to bother them so much” [Redditor 10 (Parent)].

The amount of information a parent has to keep track of to effectively support their child can lead to information overload.

Teacher 2 mentioned that the school had put all the information for parents in an eight pages long syllabus.

Parent 3 read emails from the teacher, but not always emails from the principal or district.

Email is convenient for its asynchronicity, pace, ability to be peer-reviewed, and automatic archive.

Teacher 2 preferred email based on asynchronicity and the ability to reformulate words, it also provides flexibility in scheduling.

Teacher 1 mentioned that teachers proofread each other's emails. Email is good for keeping “paper trail” evidence of conversation as email chains.

TEAMWORK BETWEEN TEACHERS AND PARENTS REQUIRES MUTUAL TRUST AND RESPECT.

“Parents just want to know that you care about their kid.”
—Teacher 1

Cultural training can be helpful but not sufficient for a teacher to understand an immigrant parent's perspective.

Dr. Ishimaru thinks that just because teachers have language training doesn't mean they fully understand cultural context.

Villegas and Lucas say that general knowledge of a culture isn't enough to establish empathy, communication interaction between individuals, is necessary for understanding.

Parents are comforted when they know the teacher understands and cares.

Teacher 1 mentioned that parents want to know that the teacher cares about the child.

Redditor 1 (Teacher) said that good news from teachers is comforting for parents.

Teachers don't always acknowledge parents as an active/engaged partner in supporting the child.

Dr. Ishimaru said that immigrant families support their child different from white assumptions. For Latinx community, cultural classes are a form of parental engagement.

Huss-Keeler says that some immigrant parents support their child's education from home rather than showing up at school, which can be misinterpreted by teachers as a lack of interest.

DESIGN PRINCIPLES

We synthesized our participants' individual opinions, our findings from scholarly writings, and lessons learned from our competitive assessment into the following design principles:

BE EFFICIENT

- Use as little time as possible.
- Avoid platform sprawl.
- Eliminate any work that isn't productive.
- If computers can do something, don't make the humans do it.
- Assist with setting priorities.

Supporting Insight

- Parents and teachers have limited time to dedicate to effective communication.

PROMOTE CULTURAL RESPECT

- Enable people to respect another way of doing things.
- Encourage a specific understanding of individual experiences, rather than merely a general knowledge of a culture.

Supporting Insight

- Constructive communication requires sensitivity to both culture and circumstance.

BE CONVENIENT

- Integrate into existing workflows.
- Leverage of existing social networks.
- Embrace existing or familiar technologies.
- Eliminate unnecessary intermediaries.
- Reduce the cost of change.
- Adjust to parents and teachers' schedules

Supporting Insights

- Current infrastructure doesn't adequately support communication between immigrant parents and teachers.
- Parents and teachers have limited time to dedicate to effective communication.

MIND THE LANGUAGE GAP

- Whenever possible, use language the user understands.
- Minimize language proficiency requirements. If you must use a language, use a limited, easily learnable vocabulary.
- Don't assume icons or design patterns are universal.

Supporting Insight

- Current infrastructure doesn't adequately support communication between immigrant parents and teachers.

MAKE INFORMATION AVAILABLE

- Don't limit access to information for parents based on a student's age.
- Make availability visible.
- Don't make information unavailable to parents because they don't and/or can't use a technology.
- Consider what information parents want

Supporting Insight

- Inability to prioritize information leads to simultaneous information overload and information blindness.

BUILD RELATIONSHIPS

- Highlight common ground and common goals.
- Make other parties' constraints visible.
- Help teachers and parents to understand each other's priorities and ways of support.
- Supporting Insights
- Teamwork between teachers and parents requires mutual trust and respect.

- Constructive communication requires sensitivity to both culture and circumstance.

BE FLEXIBLE

- Always offer another way of doing things.
- Consider various cultural conventions.
- Reflect a range of people-determined urgency.

Supporting Insight

- Constructive communication requires sensitivity to both culture and circumstance.

SUPPORT INFORMATION PROCESSING

- Keep an archive for reference and reflection.
- Allow time to consider responses.
- Assist with information overload.

Supporting Insight

- Inability to prioritize information leads to simultaneous information overload and information blindness.

CONCLUSION

Through our research, we learned about immigrant parents and teachers and how they communicate with each other, as well as problems in their communication with each other. We plan to apply our design principles generated from the insights of our research into the concept development phase. The design principles will help us keep in mind what we should avoid or strive toward when designing a solution.

We have already begun viewing our data through different lenses to aid our ideation process by comparing the cost of using different communication media for parents and teachers and identifying barriers preventing both parties from successful engagement. (See Appendices E and F.) Though our research has brought up new questions about cultural negotiation, we feel confident that we have sufficient information to move forward in our design process.

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Appendix A: Survey for Parents

PARENT SURVEY

In this survey, we are interested in learning more about your thoughts and feelings towards communicating with your child's school. This survey is to help us understand different aspects of parent-school communication for immigrant parents. Please be as honest as possible—there are no right or wrong answers.

1. How old were you when you moved to the U.S.? (Select one)
 - Younger than 18
 - 18 or older
 - Other, explain: _____
2. How long have you lived in the U.S.? _____
3. What is your highest level of education? _____
4. In what county/countries did you go to elementary (primary) school? _____
5. What is your ethnic background? _____
6. What grade(s) are your children in? Check all that apply.
 - Younger
 - Preschool
 - Kindergarten
 - 1st
 - 2nd
 - 3rd
 - 4th
 - 5th
 - Older
7. What ways do you use to get information from your child's school? (And which do you prefer). Check all that apply.

Ways of Communication	I use	I prefer
Email	<input type="checkbox"/>	<input type="checkbox"/>
School websites	<input type="checkbox"/>	<input type="checkbox"/>
Online parent portal (Online access to grades, attendance, assignments, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Phone call	<input type="checkbox"/>	<input type="checkbox"/>
Voice mail/message	<input type="checkbox"/>	<input type="checkbox"/>
Video call	<input type="checkbox"/>	<input type="checkbox"/>
Paper newsletters	<input type="checkbox"/>	<input type="checkbox"/>

Postal mail	<input type="checkbox"/>	<input type="checkbox"/>
Text messages	<input type="checkbox"/>	<input type="checkbox"/>
PTA/PTO	<input type="checkbox"/>	<input type="checkbox"/>
Community meetings	<input type="checkbox"/>	<input type="checkbox"/>
School board meetings	<input type="checkbox"/>	<input type="checkbox"/>
Radio	<input type="checkbox"/>	<input type="checkbox"/>
Social media (Facebook, Twitter, Instagram, or other)	<input type="checkbox"/>	<input type="checkbox"/>
TV	<input type="checkbox"/>	<input type="checkbox"/>
Note sent home with my child	<input type="checkbox"/>	<input type="checkbox"/>
Talking with my child	<input type="checkbox"/>	<input type="checkbox"/>
In-person/Meeting with teacher	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify:	<input type="checkbox"/>	<input type="checkbox"/>

8. What ways do you use to contact your child's school? (And which do you prefer?). Check all that apply.

Ways of Communication	I use this	I prefer this
Email	<input type="checkbox"/>	<input type="checkbox"/>
School websites	<input type="checkbox"/>	<input type="checkbox"/>
Online parent portal (Online access to grades, attendance, assignments, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Phone call	<input type="checkbox"/>	<input type="checkbox"/>
Postal mail	<input type="checkbox"/>	<input type="checkbox"/>
Text messages	<input type="checkbox"/>	<input type="checkbox"/>
Send note with child	<input type="checkbox"/>	<input type="checkbox"/>
Tell child to tell teacher	<input type="checkbox"/>	<input type="checkbox"/>
Social media (Facebook, Twitter, Instagram, or other)	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify:	<input type="checkbox"/>	<input type="checkbox"/>

9. What information are you most interested in getting from your child's school? Check all that apply.

Kinds of information	Information I get	Information I want	Information I get but do not want
Changes to what or how they are teaching my child	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What my child is learning at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calendar of events/meetings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
What school supplies my child needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How the school is doing compared to other schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student safety	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How good the teachers are	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Before/after-school programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ways for me to get involved with the school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Why the school made big decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Food and nutrition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
School building construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. Are school communications available in your primary language?

- Yes
- No
- Sometimes (please explain)

11. How often do you meet in person with teachers at your child's school?

- Almost never
- Once or twice per year
- Every few months
- Monthly
- Weekly or more

12. How welcome do you feel at your child's school?

- | | | | | |
|-------------|---|---|---|--------------|
| 1 | 2 | 3 | 4 | 5 |
| Not welcome | | | | Very welcome |

13. Overall, how well informed do you feel about events, activities, or issues at their child's school?

- | | | | | |
|-----------------|---|---|---|---------------|
| 1 | 2 | 3 | 4 | 5 |
| Poorly informed | | | | Well informed |

14. Have you ever initiated communication with your child's school?

- Yes
- No

15. How many times this school year have you initiated communication with your child's school?

16. How do you access the Internet? Check all that apply.

- I do not use the Internet.
- Smartphone
- Tablet
- Personal Computer
- Work Computer, Tablet or Smartphone
- Other, Specify:

17. Do you have any physical or electronic communications with the school or teachers that you would be willing to share with us?

- Yes
- No

18. If yes, how should we contact you?

Name: _____

E-mail: _____

Phone Number: _____

Text Message

Call

Best time(s) to call: _____

Other: _____

Appendix B: Survey for Teachers

TEACHER SURVEY

This survey is to help us understand different aspects of parent-school communication for teachers of students with immigrant parents. Please be as honest as possible—there are no right or wrong answers.

1. How long have you been a professional teacher? _____

2. Have you ever lived outside of the U.S.? (Where and for how long?) _____

3. Is your native language anything other than English? If so, what language(s)? _____

4. Are you at least conversationally fluent in any language besides English? If so, what language(s)? _____

5. What methods do you use to contact a child's parent or guardian? (and which do you prefer) Check all that apply.

Method of communication	I use	I prefer
Email	<input type="checkbox"/>	<input type="checkbox"/>
School websites	<input type="checkbox"/>	<input type="checkbox"/>
Online parent portal (Online access to grades, attendance, assignments, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Phone call	<input type="checkbox"/>	<input type="checkbox"/>
Voice mail/message	<input type="checkbox"/>	<input type="checkbox"/>
Postal mail	<input type="checkbox"/>	<input type="checkbox"/>
Text messages	<input type="checkbox"/>	<input type="checkbox"/>
Note sent with child	<input type="checkbox"/>	<input type="checkbox"/>
Social media (Facebook, Twitter, Blogs, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify:	<input type="checkbox"/>	<input type="checkbox"/>

6. What methods do parents use to contact you? (and which do you prefer) Check all that apply.

Method of communication	They use	I prefer
Email	<input type="checkbox"/>	<input type="checkbox"/>
School websites	<input type="checkbox"/>	<input type="checkbox"/>
Online parent portal (Online access to grades, attendance, assignments, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Phone call	<input type="checkbox"/>	<input type="checkbox"/>
Voice mail/message	<input type="checkbox"/>	<input type="checkbox"/>
Postal mail	<input type="checkbox"/>	<input type="checkbox"/>
Text messages	<input type="checkbox"/>	<input type="checkbox"/>
Note sent with child	<input type="checkbox"/>	<input type="checkbox"/>
Social media (Facebook, Twitter, Blogs, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Other, Specify:	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

7. Have you ever attended a course or received instruction in cultural sensitivity or communicating with immigrant parents as part of your teacher training? If so, please explain.

8. Have you ever attended a course or received instruction in cultural sensitivity or communicating with immigrant parents outside of your teacher training? If so, please explain.

9. Do you have any physical or electronic communications with parents that you would be willing and allowed to share with us?

- Yes
 No

10. If yes, how should we contact you?

Name: _____

E-mail: _____

Phone Number: _____

Text Message

Call

Best time(s) to call: _____

Other: _____

Appendix C: Artifact Inquiry for Parents

Artifact inquiry draws elements from artifact analysis, contextual inquiry, and narrative research. In essence, it is an interview centered around artifacts as a means of gathering data. In some sense, it is a way of short-circuiting a diary study.

We are using artifact inquiries to:

- Identify possible concrete problems that we have the ability to address regarding the communication between immigrant parents and the schools their children attend.
- Identify what communication mechanisms and attitudes are related or unrelated.
- Identify what a good communication system might be like for schools and immigrant parents.
- Identify what technology exists that we can leverage for our solution.
- Look at actual communication artifacts within the parent/teacher's context and evaluate their appropriateness

We will try to do as many inquiries as we can. We are aiming for at least 3 parent and 3 teachers. Each session should last 45 to 75 minutes, depending on how many artifacts there are.

Weeks before the inquiry, we will send parents a multi-pocket file with instructions to gather communications they've received from their child's school. We will also ask them to fabricate/duplicate any communications they've sent to their child's school if they do not have the original.

MATERIALS

- Audio recorder (not the same device as the camera)
- Camera (not the same device as the audio recorder)
- Black paper
- Scissors
- Note-taking device
- Gratuity (\$20 Amazon gift card)
- Gratuity release
- Consent form
- Writing utensil for forms
- Business card or contact information

PHOTOGRAPHY

People

A close portrait shot of the interviewee.

A far shot of the interviewee in their living room, kitchen, dinner table, and/or office if this is in their home. The interviewee will be seated unless they are in the kitchen. They will be facing the camera.

Several shots with the interviewer in the foreground and the interviewee in the midground. The interviewee will be the focus of the shot. The angle of the shot will be 30 to 60 degrees from the interviewer's point of view. Different emotions and/or artifacts would be nice.

A few close shots of the interviewee holding their artifact during the interview. We may need to censor the content of the artifacts. It would be best to show the interviewee these shots to get their approval.

Artifacts

We will take pictures of any artifacts that the participant is willing to let us take pictures of. We will use the black paper to occlude any sensitive information, which may include names, grades, or contact information.

For non-touch screens, we can take a screenshot and then black out sensitive information in Snipping Tool or Preview.

INTRODUCTION

Hi. I'm [interviewer] and this is [note-taker] and [photographer]. Thank you so much for gathering messages from teachers taking the time to talk with us about them. Today, I'll be talking with you, [note-taker] will be taking notes, and [photographer] will be taking some photos to help us remember what you've told us. We'll let you review these photos at the end.

We'd like to record this interview, is that still alright with you?

Can you sign this form? It says that you're giving us permission to use the photos we take for our project. It also says that you're giving us permission to record this conversation, but that the recording won't be shared with anyone else. Do you have any questions?

Would you like to use the restroom or get a drink/snack before we start?

ABOUT THE INTERVIEWEE

Before we take a look at the messages, we have some questions about you.

Where did you grow up?

What kind of education did you have?

What was your family like?

When did you immigrate to America?

Did you come with anyone else?

What were you doing before you immigrated?

What was the main reason you immigrated?

How many children do you have?

What are their ages?

What grades are they in?

What do they like?

Do you work?

What is your job(s)?

What is your schedule like?

What is your commute like?

How much time do you get to spend with your children?

Who are your neighbors/community?

Do you do any activities with them?

Do they have children as well?

What is their cultural background?

ARTIFACTS

What is this?

When did you receive/send it?

Was it sent directly to/by you or through your children?

Why did you / the school send this message?

Do you feel like you understand the message?

How do you feel about the message?

Is it useful?

Is it respectful?

Are you satisfied with how/when this message was sent?

Why or why not?

If not, what might be a better way?

You showed us an example of a message that was bad/good, can you show us or tell us about an example that was good/bad?

POSSIBILITIES

If you have everything the way you wanted about the way you and your child's school communicate, what would it look like?

What's the biggest difference between this and how it is right now?

How do you communicate with your family, friends, and/or community?

How do you get your mail?

What electronic devices do you own?

Do you use email?

Do you use social media?

CONCLUSION

Is there anything else you'd like to tell us?

Thank you so much for spending time with us. This has been very enjoyable and helpful for us. Here is a small thank you from us. <Give gratuity.> Please sign this form to acknowledge that we've given this gift to you along with our contact information.

Again, thank you for your time. Here is our contact information if you have any questions.

PARENT CONSENT FORM

I will join in a study done by students from the University of Washington.

I am doing this because I want to, and no one is forcing me to do this.

I understand that I will be given a \$20 gift card for doing this. I can stop doing this or leave at any time during the study for any reason, knowing that I will still be given a \$20 gift card.

During the study, I will be answering questions asked by the students, and showing the students notes and notices between the school my child goes to and me.

Pictures will be taken during the study, and I am okay with having pictures taken of me as well as the notes and notices. I understand that the students will do their best to hide any private things in the notes and notices.

The students will record sound during the study, and I am okay with the students recording what I say.

Notes will be written about me during the study. I understand that the students will not use my name in any reports, and that my private matters will be kept safe and not shared.

Anything that is recorded or found out by the students will only be used in the study, and not somewhere else.

I have read and understand words above on this paper. I have had all my questions answered as I would like, and I agree to join in this study.

NAME

SIGNATURE

DATE

PARENT GRATUITY RELEASE

I have gotten a \$20 gift card from students at the University of Washington for joining in their study on the date written under this.

I have been given a way to ask the students about any concerns about the study and/or the \$20 gift card.

NAME

SIGNATURE

DATE

Appendix D: Artifact Inquiry for Teachers

Artifact inquiry draws elements from artifact analysis, contextual inquiry, and narrative research. In essence, it is an interview centered around artifacts as a means of gathering data. In some sense, it is a way of short-circuiting a diary study.

We are using artifact inquiries to:

- Identify possible concrete problems that we have the ability to address regarding the communication between immigrant parents and the schools their children attend.
- Identify what communication mechanisms and attitudes are related or unrelated.
- Identify what a good communication system might be like for schools and immigrant parents.
- Identify what technology exists that we can leverage for our solution.
- Look at actual communication artifacts within the parent/teacher's context and evaluate their appropriateness

We will try to do as many inquiries as we can. We are aiming for at least 3 parent and 3 teachers. Each session should last 45 to 75 minutes, depending on how many artifacts there are.

Weeks before the inquiry, we will send parents a multi-pocket file with instructions to gather communications they've received from their child's school. We will also ask them to fabricate/duplicate any communications they've sent to their child's school if they do not have the original.

MATERIALS

- Audio recorder (may use a phone, but not the same device as the camera)
- Camera (may use a phone, but not the same device as the audio recorder)
- Black paper
- Scissors
- Note-taking device
- Gratuity (\$20 Amazon gift card)
- Gratuity release
- Consent form
- Writing utensil for forms
- Business card or contact information

PHOTOGRAPHY

People

A close portrait shot of the interviewee.

A far shot of the interviewee in their classroom if this is in their workplace. The interviewee can be seated or standing. They will be facing the camera.

Several shots with the interviewer in the foreground and the interviewee in the midground. The interviewee will be the focus of the shot. The angle of the shot will be 30 to 60 degrees from the interviewer's point of view. Different emotions and/or artifacts would be nice.

A few close shots of the interviewee holding their artifact during the interview. We may need to censor the content of the artifacts. It would be best to show the interviewee these shots to get their approval.

Artifacts

We will take pictures of any artifacts that the participant is willing to let us take pictures of. We will use the black paper to occlude any sensitive information, which may include names, grades, or contact information.

For non-touch screens, we can take a screenshot and then black out sensitive information in Snipping Tool or Preview.

INTRODUCTION

Hi. I'm [interviewer] and this is [note-taker] and [photographer]. Thank you so much for gathering messages from teachers taking the time to talk with us about them. Today, I'll be talking with you, [note-taker] will be taking notes, and [photographer] will be taking some photos to help us remember what you've told us. We'll let you review these photos at the end.

We'd like to record this interview, is that still alright with you?

Can you sign this form? It says that you're giving us permission to use the photos we take for our project. It also says that you're giving us permission to record this conversation, but that the recording won't be shared with anyone else. Do you have any questions?

Would you like to use the restroom or get a drink/snack before we start?

ABOUT THE INTERVIEWEE

Before we take a look at the communications, we have some questions about you.

Where did you grow up?

What kind of education did you have?

What was your family like?

(If an immigrant) When did you immigrate to America?

Did you come with anyone else?

What were you doing before you immigrated?

What was the main reason you immigrated?

What do you teach?

What grades?

What subjects?

What is your schedule like?

How many immigrant students do you have?

What are their cultural backgrounds?

Who are your neighbors/community?

Do you do any activities with them?

What is their cultural background?

What reasons might you have to send communications to students' parents?

Are any of them regularly scheduled or on a quota?

ARTIFACTS

What is this?

When did you send/receive it?

Was it sent directly by/to you or through your students?

Why did you / the parent send this message?

Do you feel like the message is understandable by immigrant parents?

How do you feel about the message?

Is it useful?

Is it respectful?

Are you satisfied with how/when this message was sent?

Why or why not?

If not, what might be a better way?

You showed us an example of a message that was bad/good, can you show us or tell us about an example that was good/bad?

POSSIBILITIES

If you have everything the way you wanted about the way you and your students' parents communicate, what would it look like?

What's the biggest difference between this and how it is right now?

Is there any training or resources you wish you had to accommodate for this gap?

How do you communicate with your colleagues?

CONCLUSION

Is there anything else you'd like to tell us?

Thank you so much for spending time with us. This has been very enjoyable and helpful for us. Here is a small thank you from us. <Give gratuity.> Please sign this form to acknowledge that we've given this gift to you along with our contact information.

Again, thank you for your time. Here is our contact information if you have any questions.

TEACHER CONSENT FORM

I volunteer to participate in a research project conducted by representatives from the University of Washington.

My participation in the study activities are voluntary.

I understand that I will be compensated a \$20 gift card for my participation. I may withdraw and discontinue participation at any time without penalty. If I feel uncomfortable in any way during the study session, I have the right to decline to participate fully in any activity or to leave the study session, knowing that my compensation will not be reduced in such an event.

Participation involves answering questions asked by the researchers, and showing the researchers communications between me and the parents of my students.

Photos will be taken during both activities, and I give my consent to be photographed and for the communications to be photographed. I understand that the researchers will do their best to respect any sensitive information in the communications.

An audio recording of the interview will be captured, and I give my consent to be recorded.

Notes will be written about me during the interview. I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this study will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

NAME

SIGNATURE

DATE

TEACHER GRATUITY RELEASE

I acknowledge that I have received a \$20 gift card from students at the University of Washington for my participation in their study on the date written below.

I acknowledge that I have been given the appropriate contact information should I have any concerns about the study and/or the gratuity.

NAME

SIGNATURE

DATE

Appendix E: Two-by-Two Matrix on Teacher-Parent Communication

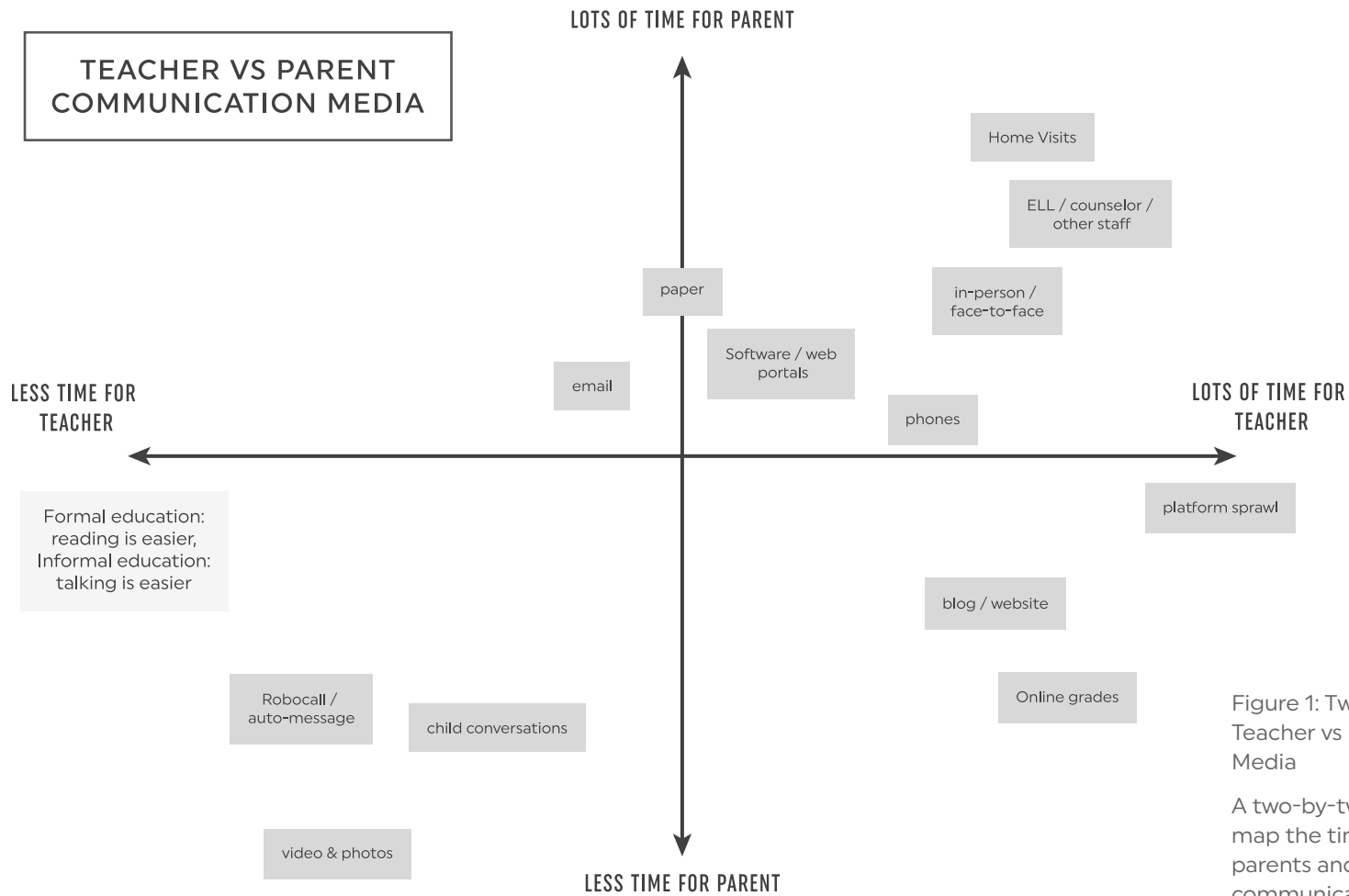


Figure 1: Two-by-Two Matrix on Teacher vs Parent Communication Media

A two-by-two we generated to map the time costs for both parents and teachers for various communication media.

Appendix F: Barriers To Access versus Areas of Involvement





































BARRIERS TO ACCESS									
AREAS OF INVOLVEMENT		Transportation	Childcare	Time/availability	Written proficiency	Oral proficiency	Tech availability	Teacher training	
	Curriculum Night								
	PTSA								
	Volunteering								
	Parental communities								
	Culture in the classroom								
	Reaching teachers								
	Reaching parents								
	Parent-teacher relationship								

Figure 2: Barriers To Access versus Areas of Involvement

A table we used to visualize what barriers to access existed for participating in areas of teacher and parental involvement. The large skulls indicate significant barriers to access, and the smaller skulls are potentially smaller barriers.

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