

Prepared for the NYC Department of Education

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Table of Contents

Executive Summary	3
About School Finder	4
Overview of NYC HS Admissions Process	5
Mobile Usage	6
Accessibility for Low-Income Families	7
Problem Statement	8
Comparative & Competitive Analysis	9
School Finder Site Map	9
Affinity Map Takeaways	10
Contextual Inquiry Takeaways	11
Expert Interviews	12
Key Findings from Expert Interviews	13
Persona: Guidance Counselor	15
Persona: Parent	16
Feature Prioritization	17
Minimum Viable Product	18
Test and Iterate	18
Recommended Site Map	19
Usability Test Results	19
Suggested Feature Rollout	20
Next Steps	21
Other Links and Information	21
Annotations	22
Desktop Version	29

Executive Summary

NYC School Finder is an agile cloud-hosted web application designed to help users **explore choices for HS admissions** processes, launched in September 2016.

- ▶ 2004 Universal School Choice Implementation: Students can **apply to up to 12 programs** anywhere in the city and they receive **one offer**
- ▶ **Stakeholders:** Middle School Educators, Students and their Families, and DOE Staff
- Opportunity: Increase the average number of programs families list on the application
- ▶ 2.0. primary goal to increase usage among low-income families, many of whom access the internet with an older model smartphone and a prepaid data plan.

How might we help students and families better understand the overall admissions process, the different types of admissions methods, and increase awareness of key dates and deadlines, increasing their chances of getting a Round 1 offer?

Our Design Process

Synthesized Past Research with Affinity Mapping

▶ Frustration understanding the admissions and selection process – pain point for educators, students and their families

Conducted Expert Interviews

The needs across the 5 boroughs vary greatly based on location, social economic makeup, ethnicity, and other factors points

User Map of Admissions Flow

▶ Student and families have questions and need guidance throughout the entire yearlong multi-part admissions process (Understand, Discover, Organize, Execute)

Contextual Inquiry

▶ Difficult to navigate and track programs of interest; nothing can replace seeing a school in person or speaking directly with students or staff from the program

Usability Testing

 Users needed explanations of terminology throughout the process- looked and asked for an "About" or "FAQ" or "Information" session **About School Finder**

To understand the problem, we needed to understand the process - background

research on the process and changes to the NYC HS admissions process over the years.

The New York City Department of Education is the largest school district in the U.S. serving

over 1.1 million students in nearly 2,000 schools.

The Office of Student Enrollment's mission is to increase access to high quality schools for

New York City students.

NYC School Finder is an agile cloud-hosted web application designed to help users explore

choices for DOE admissions processes, launched in September 2016.

School Finder currently:

▶ Supports high school admissions for the 2017-2018 school year

Achieves parity with the high school print directly and identify digital applications and

affordances (search, favorites, mobile, multilingual)

▶ Supports guidance counselors before scaling to students and families- roughly 500

counselors at middle schools help eighth graders through the high school admissions

process

School Finder Usage (9/12/2016 - 12/1/2016)

Total Users: 53,891

New Users: 44%

Mobile Users: 32%

Session Duration: 00:07:55

4

Overview of NYC HS Admissions Process

Each year, about 80,000 eighth graders participate in the stressful and elaborate dance that is the New York City high school application process. Students can apply to up to a dozen schools anywhere in the city, and then an algorithm matches them with one.¹

New York City has more than 400 high schools and over 700 programs. Eighth grade or first-time ninth grade students and families who live in New York City complete a single High School Application for up to 12 high school programs and can participate in a separate process for Specialized High Schools.²

There are nine specialized high schools. More than 25,000 students take the specialized science high school entrance exam (SSHAT) to vie for 5,000 seats at the specialized high schools, also called the exam schools.

- ▶ There are two rounds to apply for a HS program. Round 1 and Round 2.
- ▶ Students should list 12 programs on their application.
- Listing fewer than 12 programs works against you by making it less likely that you will receive an offer from your application.
- ▶ Listing fewer than 12 programs does not increase your chance of matching with a top choice.
- ▶ 97% of students who listed 12 programs on their application received an offer to a choice on their application.

The process by which students are assigned to NYC public high schools has also changed fundamentally. In 2004, a universal high school choice process was implemented. Under this system, all incoming high school freshmen are required to rank up to 12 programs they would like to attend. There is no default school assignment, meaning everyone has to choose.

¹ https://www.nytimes.com/2017/03/10/nyregion/new-york-city-high-school-admissions-rate.html

² http://schools.nyc.gov/ChoicesEnrollment/High/default.htm

Mobile Usage

- As of 2015, early two-thirds of American adults 64% own a smartphone, up from 58% in 2014
- ▶ 85% of Americans ages 18-29 are smartphone owners
- ▶ 47% of smartphone owners experience poor or dropped signal quality that prevents them from using their phone
- ▶ 15% of smartphone owners indicate that they do not have broadband service at home, and 21% indicate that they have limited options for online access other than their smartphone
- ▶ 40% to look up government services or information
- ▶ 30% to take a class or get educational content
- ▶ 88% of smartphone owners used email on their phone at least once over the course of the study period, making email a more widely-used smartphone feature than social networking, watching video, or using maps and navigation
- ▶ Fully 91% of smartphone owners ages 18-29 used social networking on their phone at least once over the course of the study period

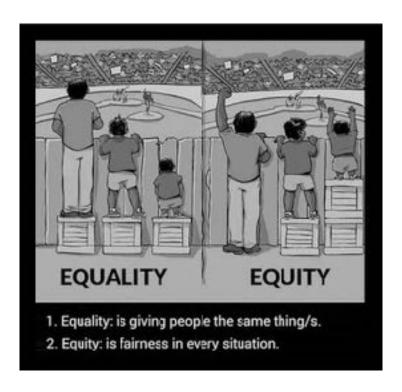
Accessibility for Low-Income Families

Citywide: 76.5% of NYC public school students quality as in poverty

▶ 23% of smartphone owners have had to cancel or suspend their service in the past due to financial constraints

Smartphone ownership is often most financially tenuous for the subset of users who depend on their mobile devices most heavily

- ▶ 48% of smartphone-dependent Americans have had to cancel or shut off their cell phone service for a period of time because the cost of maintaining that service was a financial hardship
- ▶ Smartphone owners with income of less than 30,000:
 - ▶ 44% have had to let their service lapse at some point or another
 - ▶ 43% max out on data usage frequently
 - ▶ 19% do not have broadband at home
 - ▶ 24% have few access options other than cell phone
 - ▶ 13% are smartphone-dependent



Problem Statement

As a student and/or family member, I need to:

- understand the overall admissions process
- ▶ the different types of admissions methods
- ▶ be aware of key dates and deadlines.

As a guidance counselor, I need an easier way to:

- educate each student/family about the overall admissions process
- ▶ the different types of admissions methods
- communicate key dates and deadlines.

How might we help students and families better understand the overall admissions process, the different types of admissions methods, and increase awareness of key dates and deadlines, increasing their chances of getting a Round 1 offer?

How might we continue to align with Mayor de Blasio's equity and excellence policy by making changes that maintain of increase accessibility for low-income families, many of whom access the internet with older smartphones or prepaid data plans?

Comparative & Competitive Analysis

We viewed other academic directory platforms to compare:

- methods of presenting information
- on boarding methods
- ▶ taxonomy
- navigation
- ▶ information architecture



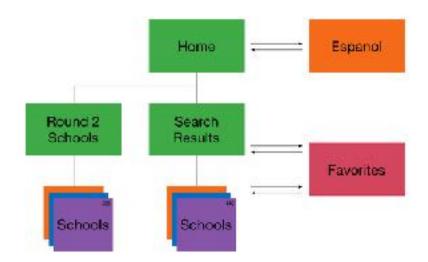








School Finder Site Map





Affinity Map Takeaways

Through synthesizing past interviews and usability testing, we were able to understand the baseline needs and pain points of users.

Understand | Discover | Organize | Execute

- ▶ Majority of admissions process starts in 7th Grade
- Overwhelmed Families
 - process/myths scare them
 - > school v. program confuse
- ▶ Dispelling myths and family misconceptions/biases
- Must be supportive but practical
- Families need to know key deadlines/dates up front and be reminded of them
- Families/students are on their own to do research "They have to help themselves"
- ▶ All staff: families must reach own decision
- Staff is stretched for time
- ▶ Different selection methods
- ▶ Parents overwhelmed by Book don't want to use it
- ▶ Families/Students aren't realistic about the commute/location
- ▶ Stress Graduation rate as a key factor to look at when selling a school to family
- ▶ Extracurriculars/Programs/Internships are big selling factors
- ▶ Comparing schools is key part of the process and is currently difficult to do
- ▶ No feedback for guidance counselors after students leave for high school

Contextual Inquiry Takeaways

Who we observed at the event

- Students
- Principals
- ▶ Families
- ▶ Families with multiple kids- typically 1 adult
- Lots of students from the schools at each booth
- Varying levels of marketing materials/swag and information presented from the different schools

Who we spoke to

- ▶ Guidance Counselors
- ▶ Principals
- Students
- DOE staff

Accessibility

Tons of DOE staff in special shits + translators + directories Divided by boroughs really highlighted the differences.

How families and schools interacted

- Families were wandering around, overwhelmed by all the madness
- Manhattan area was swamped with people (lots of specialty programs)
- ▶ Brooklyn and Staten Island floor had little turnout from schools/programs; WAY less crowded; also put in the gymnasium/basement
- ▶ Schools were eager to engage and speak with us

WHY families were there:

Families were looking for R2 options | detailed, program specific information.

Families wanted to know the hard skills the student would learn/internships/apprenticeships

WHY schools were there:

School reps focused on suggesting attendance at upcoming open houses or school visits.

"The fair is a drive through, if they're actually interested they'll visit the school."

"Importance of seeing a school in person is invaluable"

Expert Interviews

Who

- ▶ D2 Guidance Counselor in Lower Manhattan
- ▶ Bronx Guidance Counselor
- ▶ Queens Guidance Counselor
- ▶ FWC Queens Guidance Counselor
- ▶ 3 Department of Education Staff
- ▶ 3 Parents

What Matters to Schools

- ▶ Attendance
- ▶ Grades
- ▶ Test Scores

What Matters to Students/Families

- ▶ Geography
- ▶ Location Proximity to home
- ▶ Location In Manhattan
- ▶ Graduation Rate
- Area of Interest
- ▶ Graduation rate and college acceptance
- ▶ Safety

Expert Interviews

Guidance Counselor: Seth

Understanding Expectations:

- Dispel myths
- ▶ Having conversations early and often
- ▶ Graduation rate and college acceptance are the only two numbers parents care about

School Finder:

- ▶ Good change in School Finder: Showing who actually attends, not who they consider
- ▶ Hard to find program code for families, some leave blank
- Seeing school schedule is important!
- ▶ Giving them more work does not drive home- they just don't do it (On worksheets)

Guidance Counselor: Cristina

- ▶ Integrating it would be a great idea. KEY DATES & FAIRS like on inside cover.
- ▶ The action steps checklist is helpful but students are looking at it. They don't know
- ▶ They need repeated: Different selection methods
- ▶ Page 24 (FOB): this is really good. "What makes a good HS application." This should be on first page! No, really.

Guidance Counselor: Jenenea

- ▶ She can't search by graduation rate
- ▶ She wants to reorder them, switch the order vs. having 12 windows open! (she opens different browser windows and resizes them to compare schools side by side)
- ▶ Sometimes the book has Fair info, that stuff isn't actually on the website.
- ▶ They take pics on their phones of the flyers and bulletin board info
- ▶ She doesn't have all the info bc she doesn't work at those high schools
- ▶ Parents have high expectations

DOE Staff: Sam and Amy

- ▶ What are my chances of getting in we are pushing this year
- ▶ Negative motivation = if don't put down 12 and not a match, you'll be sad with options in Round 2
- Don't have metrics about sharing/sending links and urls for favorites

Key Findings from Expert Interviews

- ▶ IMPORTANCE: KEY DATES & FAIRS
- ▶ Defining different admissions methods
- ▶ Save and share lists
- ▶ School schedule
- ▶ Understanding terms: such as priority or unscreened
- ▶ Symbols in book translated to SF are important
- ▶ Confusion over program code
- ▶ "What makes a good HS application?"
- ▶ Open House dates would be very helpful for students to access, so they can start making their own calendars
- ▶ Applicants per seat is helpful

Persona: Guidance Counselor



NAME Lauren AGE 40

LOCATION Queens

FAMILY Single, no children

EDUCATION Hunter College, Certificate in School Counseling **OCCUPATION** Guidance Counselor in an NYC middle school **TECHNOLOGY** Uses a Dell desktop for work, MacBook Pro and

iPhone for personal use

BEHAVIORS/ ACTIVITIES

- ▶ She is passionate about helping families and students achieve their personal and academic goals
- ▶ She was misled by a former guidance counselor and wanted to become one to help students
- ▶ Speaks Spanish and works with families who need translation
- > She makes sure that each one of her students know that they can always reach out to her
- Once the admissions process starts, most of her day is spent solely on that
- ▶ She loves attending Summer Stage events or Shakespeare in the park
- Maintains a Facebook page where alumni can chat about how they are doing in HS

GOALS & NEEDS

- ▶ Believes the current admissions process if very rushed
- Wants to move the process back to 6th grade
- Clear graduation rate
- Is anxious about producing time for student and their parents
- She helps students find schools by location

STORIES & SCENARIOS

Lauren is preparing to meet with families for the 2018 HS admissions process. She has been using the beta version of School Finder as a directory but has no way to communicate and explain the process, open houses and deadlines.

"I tell parents to be realistic."

Persona: Parent



NAME Maria
AGE 29

LOCATION Bronx

FAMILY Single, two children

EDUCATION High school diploma from the Dominican Republic

OCCUPATION Two jobs **TECHNOLOGY** Galaxy S7

BEHAVIORS/ ACTIVITIES

- ▶ Proud mother of an 13 year old son and 9 year old daughter
- ▶ Moved to New York in her teens, originally from the Dominican Republic
- Works two jobs to support her family
- ▶ She takes her kids and nephews to school in the morning; her sister watches the kids after school while Maria is at work
- ▶ Wants to be involved in her children's school life but doesn't have the time due to work
- Recently bought her 11 year old son a cellphone for his birthday

GOALS & NEEDS

- Wants to see her children succeed
- ▶ Wants to make sure her family is safe
- Feels uncertain about the future

STORIES & SCENARIOS

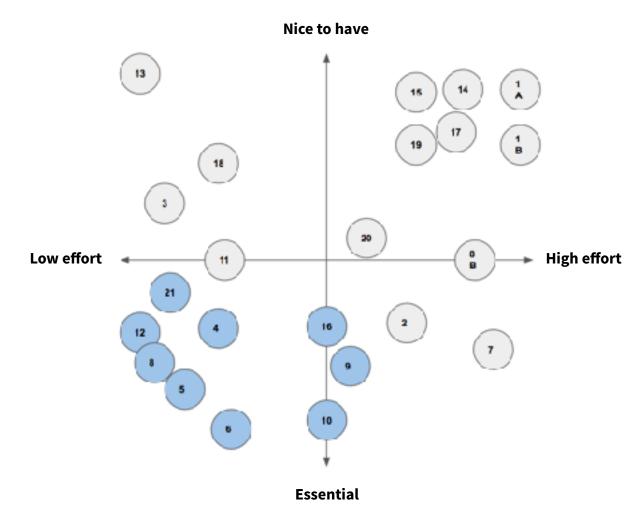
Maria's son just brought home the 600 page high school directory. Although her child is a good student, she knows their neighborhood school in the Bronx has a low graduation rate and is overwhelmed by the choices in the directory and doesn't know where to begin selecting another school.

"I'm so thankful that my sister is able to watch my kids while I'm at work."

Feature Prioritization

- Onboarding Flow
 1A) How to Use 1B) Matching
- 2. Advanced Search
- 3. Favorite from Search Page
- 4. Reorder Faves (Reach/Target/Likely)
- 5. Back Button
- 6. Dates / Countdown
- 7. Push Notifications
- 8. Calendar Recommendations8A) Visibility 8B) Revamp
- 9. Add open house to school page
- 10. How process works

- 11. Worksheets
- 12. Checklists
- 13. Changing Heart
- 14. Search by map
- 15. Faves (school comparison)
- 16. How to use School Finder (FAQ)
- 17. Favorite program (vs school)
- 18. Pro Tips
- 19. Application dictionary
- 20. Faves unique link
- 21. Move Faves from bottom to top bar



Minimum Viable Product

- 1. Create Admissions Guide (i.e. Front of Book)
- 2. Global Navigation
- 3. Homepage:
 - ▶ Highlight Key Dates/ Deadlines
 - ▶ Highlight Calendar

4. Function of Favorites Page:

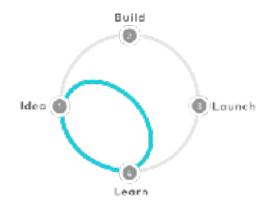
- ▶ Prioritize Programs
- ▶ Diversify Program Choices

5. Individual School Page:

- ▶ Highlight Program Code
- ▶ Increase Usage of 'Favorites' Icon

Test and Iterate

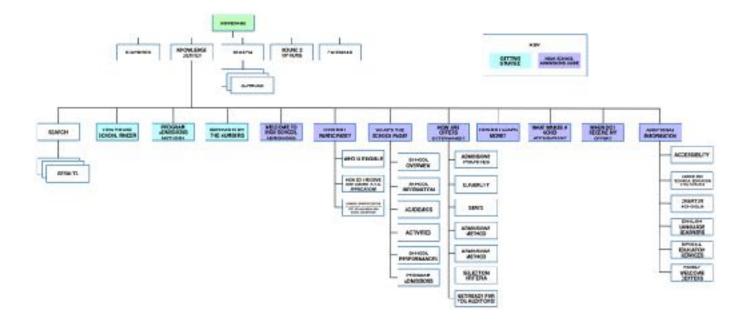
- 9 Target Users
- ▶ 4 Rounds of Usability Testing
- 4 Iterations



Round 1 C Round 2 C Round 3 C Round 4 C

Recommended Site Map

See Google Drive folder for detailed version



Usability Test Results

Things that went well

100% findability with Favorites "heart cart" in upper navigation

100% understandability with drag and drop concept and affordance

89% understood the concept of Reach/Target/Likely

100% reported visibility of the Favorites Icon on School Page

100% understandability of share and copy link buttons on Favorites Page

100% automatically scrolled on the main page and responded positively to seeing key dates

34% reported they'd use "Copy Link" over "Share" because of trust and having a site have their email

Things that didn't go well

56% responded positively to the copy within Reach/Target/Likely buckets (suggest further testing)

Putting the deadline date at the bottom of the list

Highlighting the deadline date in red – caused anxiety and stress

Adding Admissions Guide into a hamburger menu in the upper lefthand corner

Terminology of 'Knowledge Center' to describe the content in the front of book

Suggested Feature Rollout

Below is the suggested implementation of the changes.

We recommend a phased rollout, which would give your team time to gather feedback on each feature in order to refine and improve it in later phases. Seeing new iterations can also be encouraging for users to see changes actively happening.

PHASE 1

Key Dates

Add key date visuals

Make Google Calendar link into a button

PHASE 2

Admissions Guide

Create pages for Admissions Guide from current static FOB

Add accordion feature

Search Feature + tag creation

Navigation

Add Global Navigation

Javascript: Hide navigation on scroll

PHASE 3

Favorites Page

'Copy Link' button

'Share' button

Reach/Target/Likely sections

Add affordance + Javascript for drag and drop to sort favorited schools

PHASE 4

School Page

Move Favorites Heart Icon

Add box and color to program code in program tab

Next Steps

- ► Create a <u>service worker</u> to enhance offline browsing and open up the options for push notifications through a browser (*not currently available on iPhones)
- Advanced Search
- ▶ Notes on Schools Favorited
- ▶ Favorites from Search Results Page
- Changing the 'Heart Logo' [insert link here]
- ▶ Search by Map- option to view by map v. list
- ▶ Include Protips from new FOB draft
- ▶ Glossary/ Dictionary of terms

Other Links and Information

Regulation of the Chancellor A101

http://schools.nyc.gov/NR/rdonlyres/1CC25F63-74E8-41A6-8031-490F206F148D/0/A101.pdf

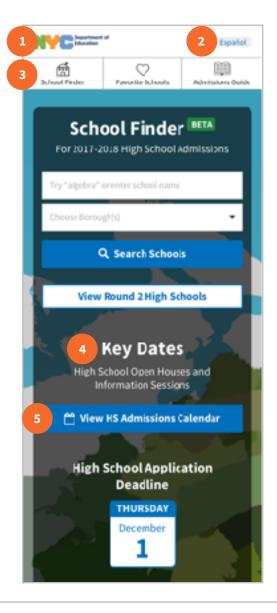
FERPA

The Family Educational Rights and Privacy Act(20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records.

https://ed.gov/policy/gen/guid/fpco/ferpa/index.html

Annotations

Full prototype at https://invis.io/FGB35AQSN

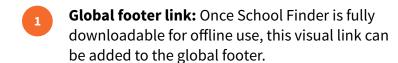


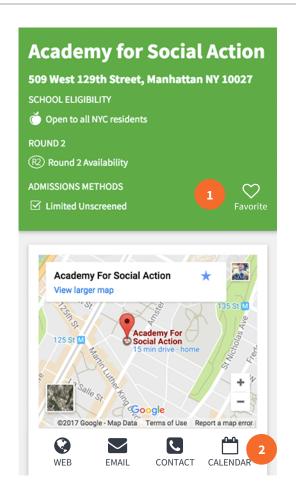
- New global header: This addition will ensure the user knows what site they're on. The NYC logo will link back to the School Finder homepage.
- Language option: This can be made a dropdown once other languages are added.
- Navigation: The current site lacks navigation.
 Adding the nav bar will help the user navigate between each section seamlessly and add more visibility to the favorites section. Nav bar will hide on scroll so it won't take up valuable screen real estate.
- **Key Dates:** Adding key dates to the homepage will increase visibility and awareness to deadlines through the process.
- Link to calendar: Adding a large button to the homepage will increase visibility and awareness to the open house and events schedule.



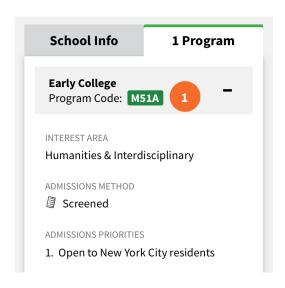
- Global footer links: Make links to the HS Admissions Calendar and HS Email Updates pages more prominent and visual to encourage users to click on them.
- Remove link: The link to "High School Admissions" contains similar information to School Finder and the Admissions Guide.



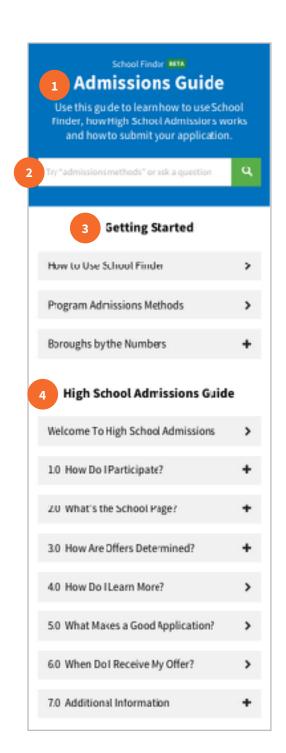




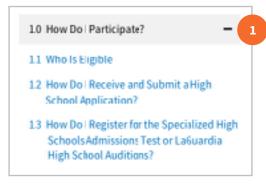
- Move favorites icon: The favorites icon is currently next to the contact information. Move the icon to the colored header section for consistency with the desktop version and to ensure the heart doesn't get lost next to the contact icons.
- Add calendar icon: Add a link to each school's calendar next to the contact information to increase visibility to important dates and events at that particular school



Program Code: Add colored background to the program code to make it easier to find.



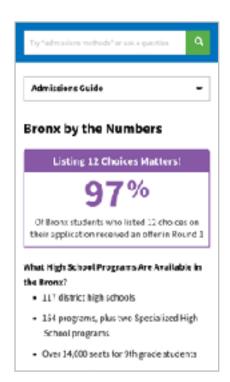
- Admissions Guide: Turn static Front of Book into a more digestible and searchable guide to help explain the high school admissions process.
- Search Bar: Allows users to quickly search for a topic or ask a question. Each section of the guide will have keyword tags attributed to it to return relevant search results.
- Getting Started section: Pull out key sections from FOB and other pdfs and create dedicated pages for them to make them searchable and readable on mobile devices (vs. viewing pdfs).
- High School Admissions Guide: Each chapter of FOB will have a dedicated section for easy navigation through the material.



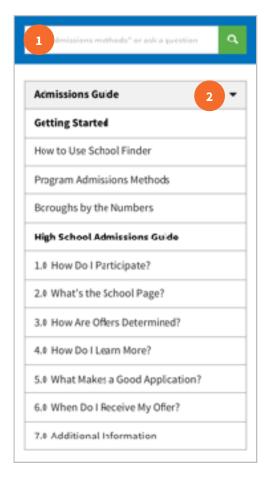
Accordion: Utilize the existing accordion feature to hide/display the subchapters to lessen scrolling on the page.



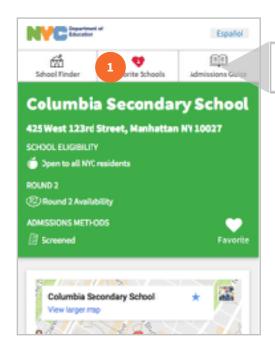




New pages: Pull out key sections from FOB and other pdfs and create dedicated pages for them to make them searchable and readable on mobile devices (vs.

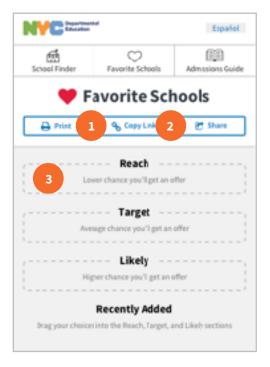


- Search Bar: Slim search bar is present at the top of every Admissions Guide page so the user can have their questions answered quickly.
- Subnav: Dropdown menu is utilized within the pages of the Admissions Guide for easy navigation between articles and chapters of the guide.





Heart state change: Once a school is favorited, the heart in the nav bar changes to a number, indicating how many schools the user has favorited, similar to a shopping cart.



- Copy Link button: Currently the unique link must be manually copied which can be difficult on mobile devices. This button will copy the link in one tap.
- **Share button:** This will trigger a *share sheet* native the the mobile device's operating system.
- Reach, Target, Likely buckets: These three sections will allow users to categorize their favorited schools (via drop and drop) based on the R/T/L definitions, which are defined in each section.





iPhone and Android Share Sheets





- Visual affordance: This visual cue will indicate to users that the school cards can be dragged and reordered.
- Drag and Drop functionality: Utilizing a Javascript library, each school card can be reordered and categorized on both mobile and desktop.

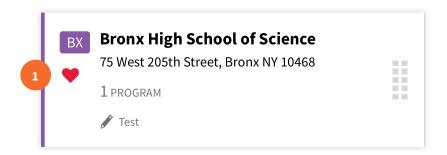
Example libraries:

React Reorder

http://jakesidsmith.github.io/react-reorder/

Sortable

https://github.com/RubaXa/Sortable/



Unfavorite school: On the favorites page, the user is currently unable to unlike schools. The user should be able to unlike by tapping on the heart.

Desktop Version

