

GEOMAP GLOBAL

USABILITY TEST REPORT

4.2.2024

PART 17:
VISUAL USER
TESTING: ICONS



GEOMAP
GLOBAL

BRUTAL DOODLES
DESIGN COMPANY

*Accomplishing Impossible
with Radical Realization*



TABLE OF CONTENTS

TABLE OF CONTENTS.....	2
DISCLAIMER.....	3
INTRODUCTION.....	4
METHODS AND METHODOLOGY.....	5
QUESTIONS AND DATA BREAKDOWN.....	7
RESULTS: DEMOGRAPHIC DATA.....	8
RESULTS: PSYCHOGRAPHIC DATA.....	10
RESULTS: RECOGNITION DATA.....	11
RESULTS: INFORMATION SCENT DATA.....	12
CONCLUSION.....	17
BIBLIOGRAPHY.....	18

DISCLAIMER

While the data sourced for this report is real, the business and purpose established are a fabrication created to practice visual design and rhetorical skills as a part of a class assignment. This report presents findings from a class project on usability and visual preference testing. The project was part of the requirements in a senior-level Visual Perception, Culture, and Rhetoric course I took at the University of Idaho.

Although the test was taken by real test participants, the name of the business is fictitious. And because this was a course project, it used a smaller sample size than the recommended 20-30 participants to keep the project manageable. In my case, I got a grand total of 12 participants for my total sample size.

Please understand that while some trends may be identifiable at this scale, without a larger sample size, relevant data that can service the needs of a business in this capacity cannot be generated, and therefore, subsequent analysis of such data, as in my case, may give more distorted or difficult to read metrics than a survey with perhaps one hundred or even one thousand participants.

I appreciate your time and consideration on these subjects.

INTRODUCTION

GEOMAP GLOBAL AND THE MISSION TO MAP

GeoMap Global has been making maps for nearly 20 years. These maps get made into everything from topographic 3D inset maps to the 3D maps used by survey teams to plan large development operations. GeoMap global even sends drones to the ocean floor and soaring high above the scanned mountains.

To improve the customer experience for GeoMap, Brutal Doodles Design Company has agreed to conduct a survey to gauge user engagement and visual preferences for a five key icons that make up the core of the main navigation menu on their homepage. These icons cover diverse aspects of mapping services that GeoMap offers.

GEOMAP REBRANDING INITIATIVE

While GeoMap Global is an autonomous drone 3D mapping company that works with a variety of cutting edge technologies, and therefore has for some time presented their image accordingly, management has decided to market the company to a wider audience.

Traditionally, they have fit very much into the “cutting edge technology” demographic, but have expressed how this can make their business seem unapproachable or prohibitively expensive, whereas in reality even small and medium businesses can afford their services. To correct this misperception and direct their branding away from their longstanding “clean edges” and “futuristic” or even “sci-fi” look, they want something more down-to-earth, even animated in nature, that makes them seem friendly and approachable.

“We wanted GeoMap to be a resource that a retail consumer could approach. Traditionally our smallest customers have been medium businesses like builders who could use our services to plan a subdivision, or a municipal city planner could use our mapping technology to implement a park. Now, we want a mom and pop operation to use us to plan their shop renovation.”

–Erik Tufton, CEO

METHODOLOGY & METHODS

Denny El Jackson

Chief Marketing Officer

In previous surveys conducted as a part of market research for the company, GeoMap Global came across to the average user as a very high-end company who approaches

very high-end clientele.

This created issues when our branding initiatives and marketing directives began to shift in Q3 2023 towards a wider retail demographic. Therefore, in an effort to appeal to this new demographic, we

contracted the services of Brutal Doodles Design Company to analyze the typical user's interaction with a radically new take on icon design, which was provided by the icon website Flaticon. This dataset will then form a basis on which we will build and

design new icons with specific characteristics that the test participants identified as favorable. This data is invaluable in identifying common trends

in user thought, as well as a host of basic interactivity requirements to make our website truly easy to navigate. Therefore, we instructed Brutal Doodles to follow certain parameters, and they took care of the rest. Our goal from the outset was to measure how customers interacted with

visual design right at the source: the homepage. And therefore, with assistance from Brutal Doodles, we came up with a methodology that can be broken down into two major categories: **Test Participants** and **Test Methods**.

**OUR GOAL FROM THE
OUTSET WAS TO MEASURE
HOW CUSTOMERS
INTERACTED WITH VISUAL
DESIGN RIGHT AT THE
SOURCE: THE HOMEPAGE**

METHODOLOGY & METHODS CONT.

TEST PARTICIPANTS

Our survey was comprised of twelve participants. These participants were recruited through social media outreach and direct messaging of individuals that the test designers felt would give genuine feedback for this process.

Test participants were not paid or compensated in any way for their answers. Neither were they instructed to bias their answers in any way.

Participants were asked to provide demographic data that included their age, education, occupation, typical internet usage.

Further questions gauged their familiarity with GeoMap Global's core subject matter such as graphic design, drone technology, and 3D maps.

“Research is something that everyone can do, and everyone ought to do. It is simply collecting information and thinking systematically about it.”

- Raewyn Connell

TEST METHODS

This survey was conducted on Google Forms, and had a fundamental construction around a scale of one to five measurement system, in order to quantify a user's visual preference data more easily in graph form. Five icons were tested for a variety of qualities outside the context of their actual placement on the website, in order to get unbiased opinions on the icons themselves.

For the recognition method, we gauged whether the user was “reminded” of the idea central to the icon, and asked them to rate how much they were reminded of that idea.

Further questions using the information scent method gauged how much the user thought the icon was fun, familiar, and gave the impression of the core idea behind the icon. For the final question, users chose the “best choice” option between five icons that visually represented that idea.

All questions used the same rating scale to harmonize the data in the results section for easier visualization. Results are broken up into the two major recognition methods mentioned above.

QUESTION AND DATA BREAKDOWN

DEMOGRAPHIC & FAMILIARITY

- Age
- Occupation
- Education
- Typical Internet Usage
- Graphic Design
- Drone Tech
- Mapping Apps
- 3D Models

PSYCHOGRAPHIC INTERESTS

- Future Tech
- Self-driving cars
- Drone Tech
- Drone Usage
- Aerial Photography
- Surveying

ICON TESTING

Recognition:

Does this image remind you of [insert core navigation idea]?

Information scent:

Does this icon seem:

- Fun
- Familiar
- Convey core idea

Best Choice

representation question:

Which of the following icons best represents [insert core navigation idea]? Displays 5 total icons, including original icon from the start.

RESULTS

DEMOGRAPHIC DATA

The demographics of our participants covered a variety of backgrounds, ages, and education levels.

As well, their familiarity with graphic design, drone technology, and mapping applications were all in line with our target demographic. GeoGlobal made it clear that they wanted these test participants to be less familiar with their technology, in order to better gauge an authentic reaction to these kinds of icons from a visual recognition standpoint.

Many of our participants aligned quite well with the clientele that GeoMap is trying to approach.

Occupations of Participants:

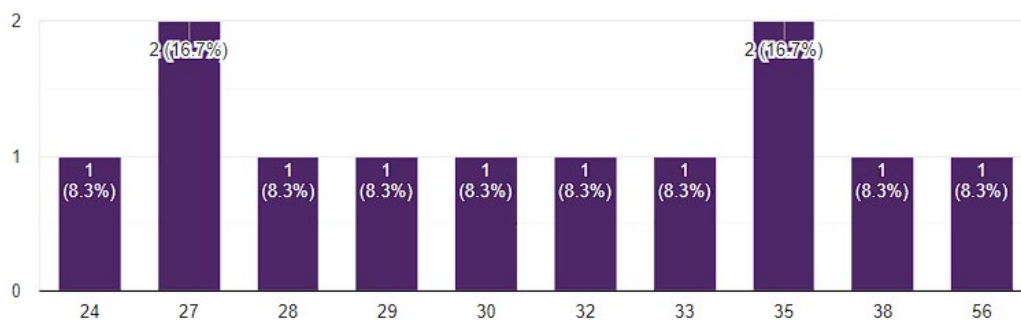
- Clockmaker
- Teacher
- Marketing Manager
- Designer
- Software Developer
- Consultant
- Small Business Owner
- Student
- Engineer
- Sales Representative
- Trader
- Payroll Analyst

Demographic Questions

How old are you?

 Copy

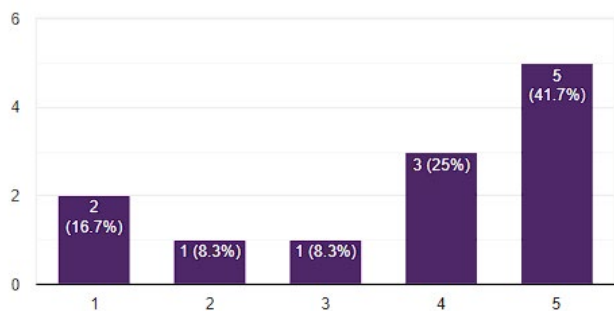
12 responses



DEMOGRAPHIC SPREAD – AGE RANGE

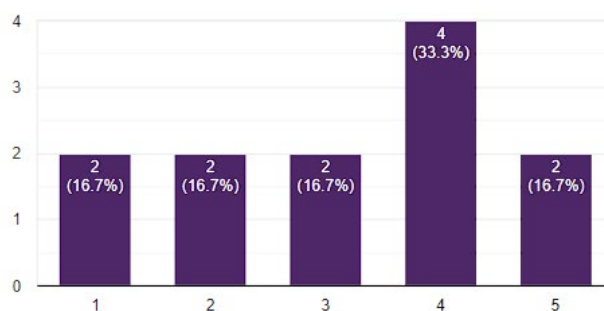
What is your familiarity with graphic design?

12 responses



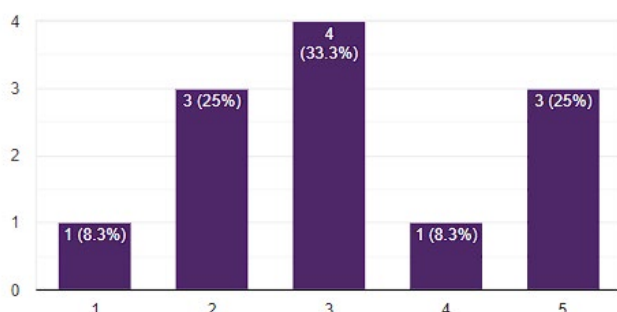
What is your familiarity with drones and drone technology?

12 responses



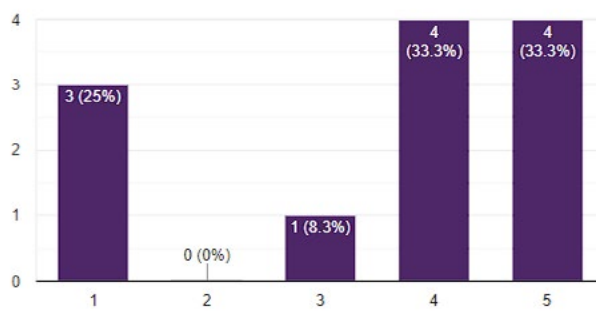
What is your familiarity with mapping applications?

12 responses



What is your familiarity with 3D models and 3D scanning?

12 responses



GRAPHIC DESIGN EXPERIENCE

Overall, our clients had a fair amount of experience with graphic design, which gave them a propensity to recognize good trends in design, well-executed design patterns, and even a fundamentals like the importance of cohesive design.

EDUCATION AND INTERNET USAGE

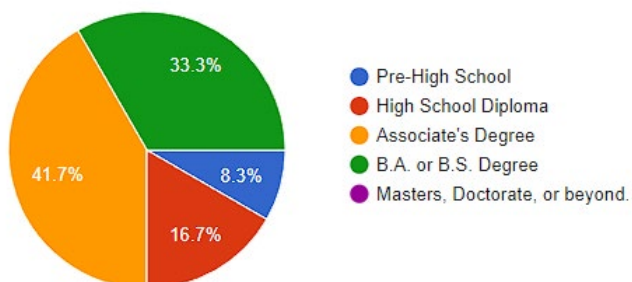
Overall, our participants were educated at the high school or college level. This aligns with our target demographic.

DRONES, MAPS, AND 3D MODELS

The familiarity with drones technology, mapping applications, and 3D design elements like models and scanners was a bit less informed, which is exactly what we wanted. Our target demographic should be less familiar with this technology.

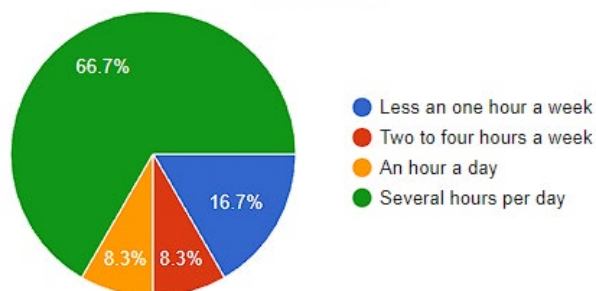
What is your education level?

12 responses



What is your typical internet usage?

12 responses



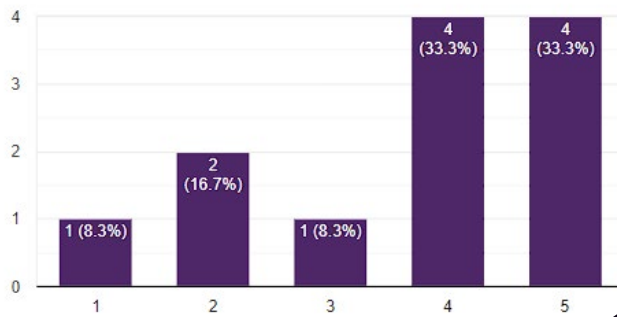
RESULTS CONT.

PSYCOGRAPHIC DATA

Overall, our test participants were relatively familiar with the technologies and services that GeoMap global specializes in providing. This is good, as we wanted them to not be estranged to the ideas being presented. As expected, while they had familiarity, far less of them had actual experience, which again aligns with our targets.

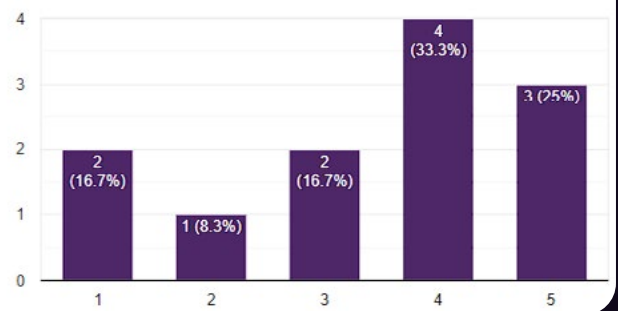
How interested are you in aerial photography?

12 responses



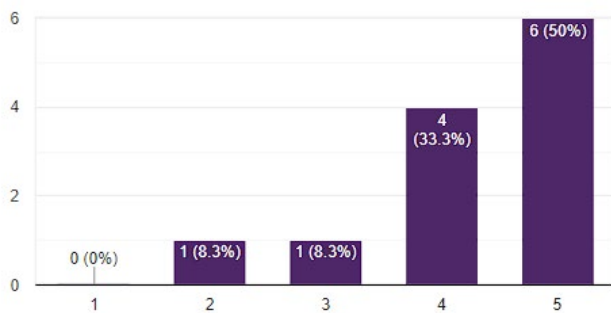
How familiar are you with surveying?

12 responses



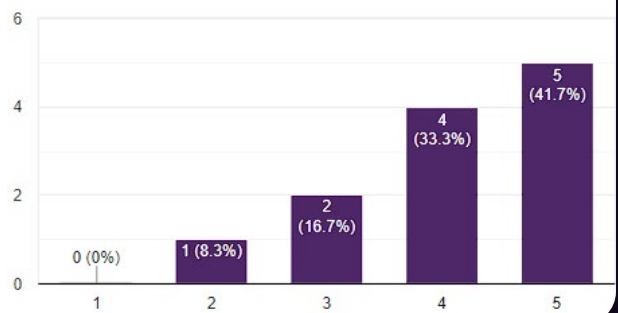
How interested are you in future technologies?

12 responses



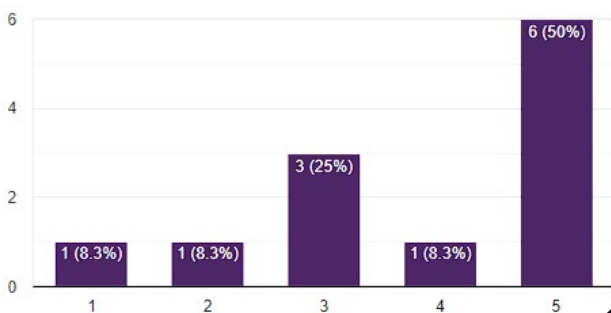
How interested are you in self-driving vehicles?

12 responses



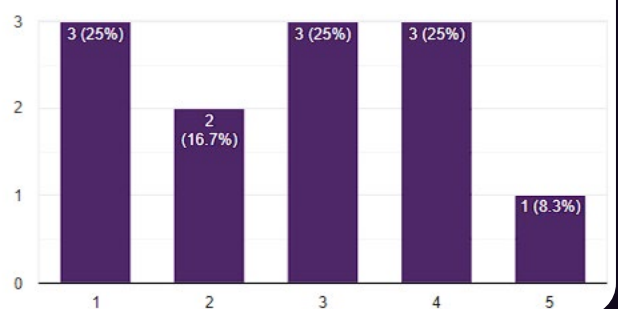
How interested are you in drone technology?

12 responses



How much have you used drone technology?

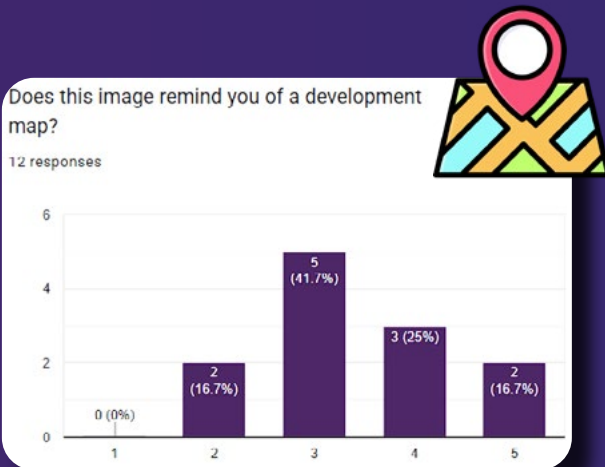
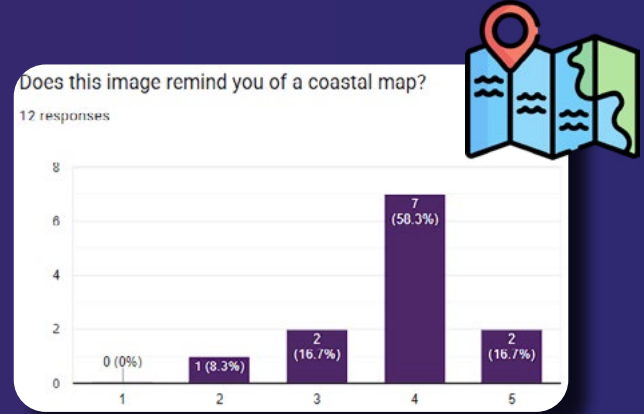
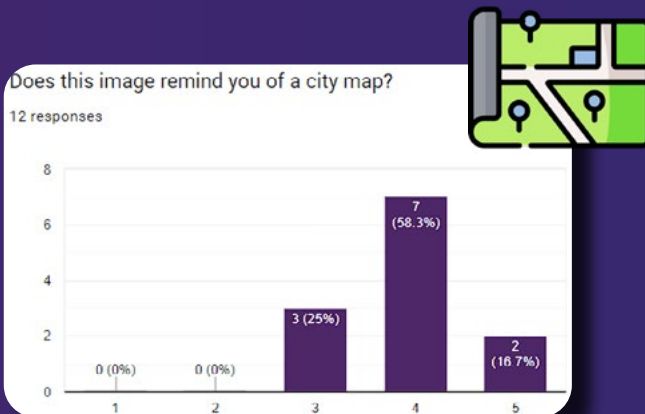
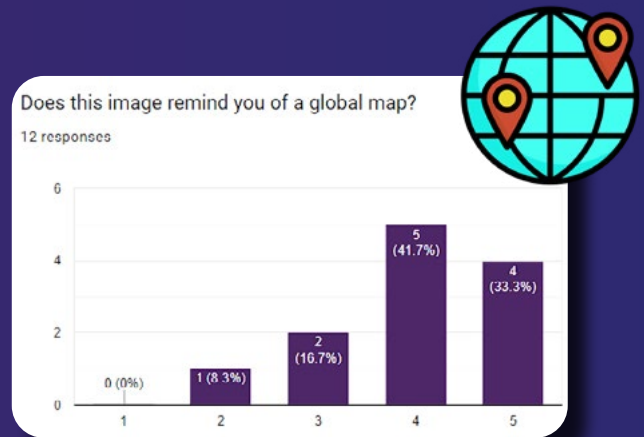
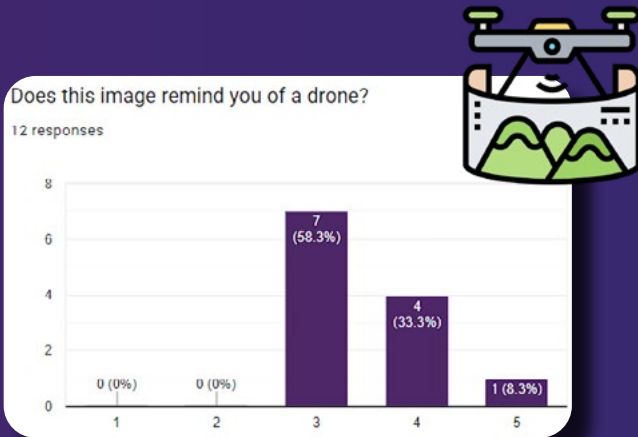
12 responses



RESULTS RECOGNITION

REMINDER TEST

This test was based on the *recognition* methodology and psychology. Our question was framed as: "Does the image remind you of *x*?"



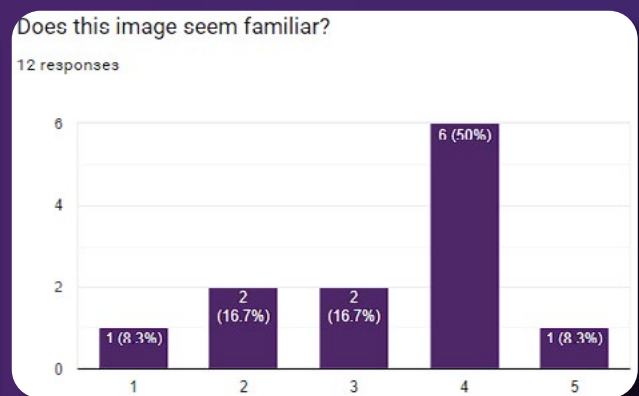
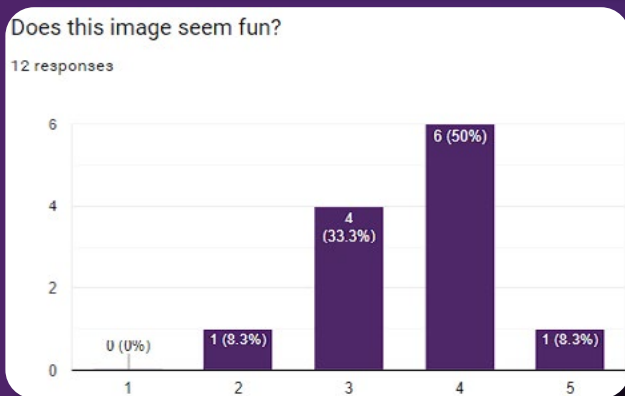
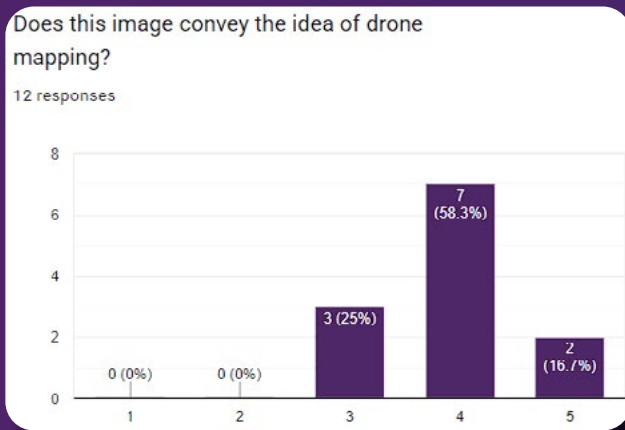
CONCLUSION

Overall, the most recognizable icon we suggested was the global map. The drone and development maps suffered from low scores in recognition, which tells us we likely need to make those icons more recognizable by moving in a different direction with their specific designs, as we detail more in the upcoming specific analyses.

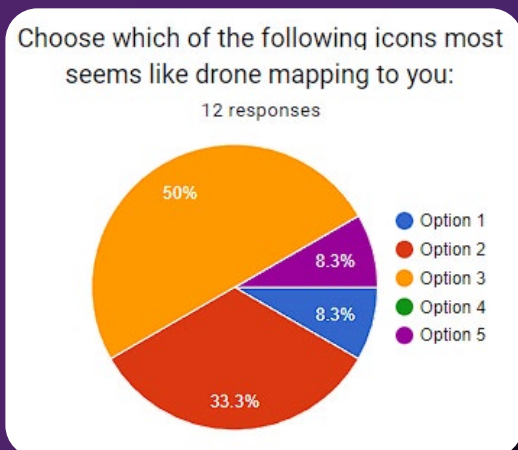
RESULTS INFORMATION SCENT

ICON TEST ONE: DRONE MAPPING

Drone mapping is a common service offered by GeoMap global. To appeal to a wider retail market, clients need to recognize a drone, like the testers did here. Testers also considered the design fun and familiar, but with some notable hesitation (4 scores). A likely solution is mirroring the example in the preference test below, option three, for clarity.



PREFERENCE TEST: DRONE MAPPING



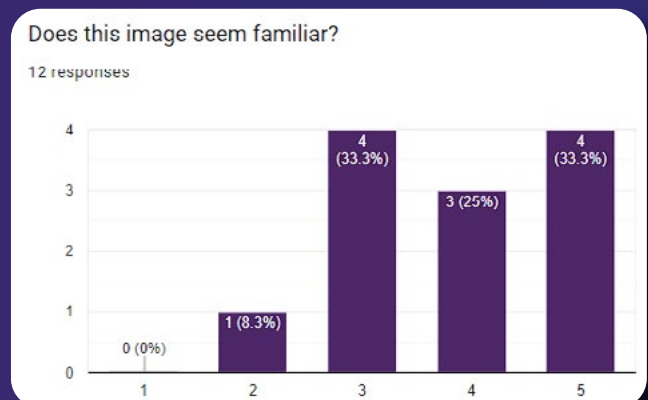
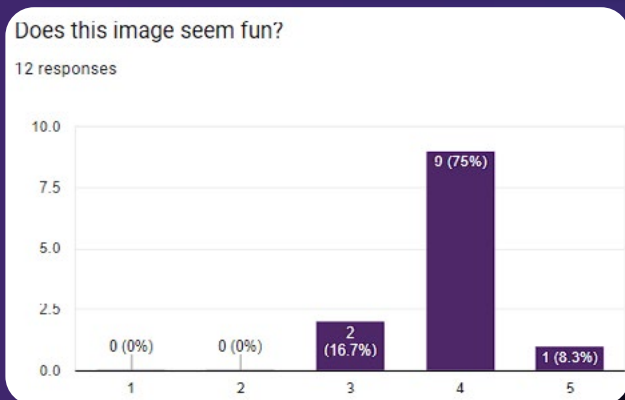
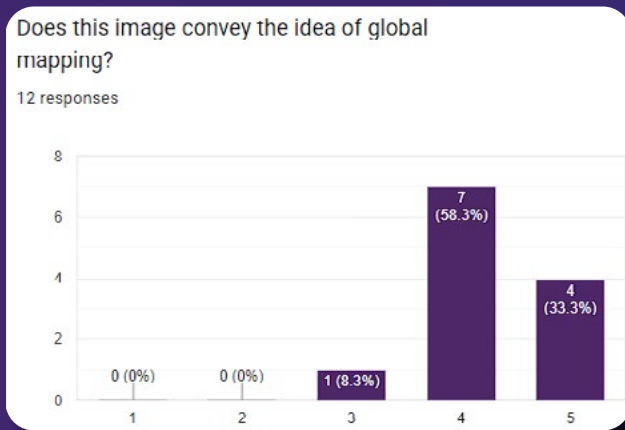
Overall, the icon that seemed the most like a drone was the third option, which clearly showed some legs, large propellers, and a larger, swooped body design similar to early-generation DJI drones that achieved reknown. We should also consider bringing the drone to the forefront in arrangement.



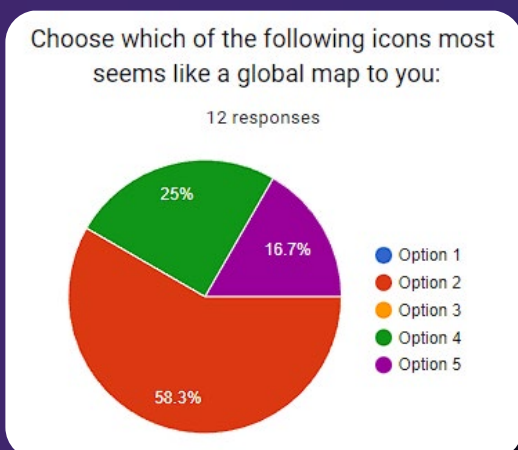
RESULTS INFORMATION SCENT

ICON TEST TWO: GLOBAL MAPPING

Global mapping is a service that uses satellite data and overlays the 3D modeled data into the photographic 2D layer, which creates a unique effect for programs such as Google Earth. Our testers found our icon selection to convey the idea well, and it seemed fun, but the familiarity rating was lower. As well, our icon did not score in the preference test.



PREFERENCE TEST: GLOBAL MAPPING



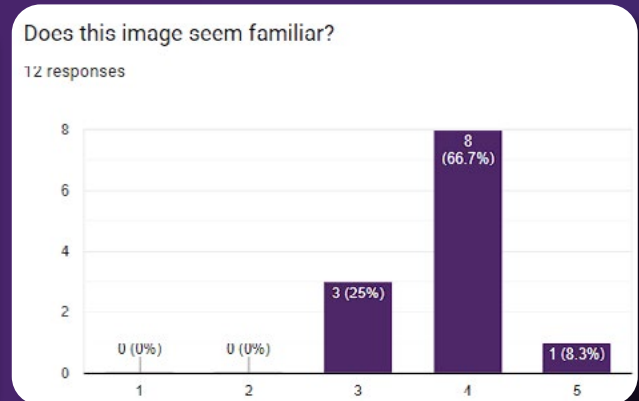
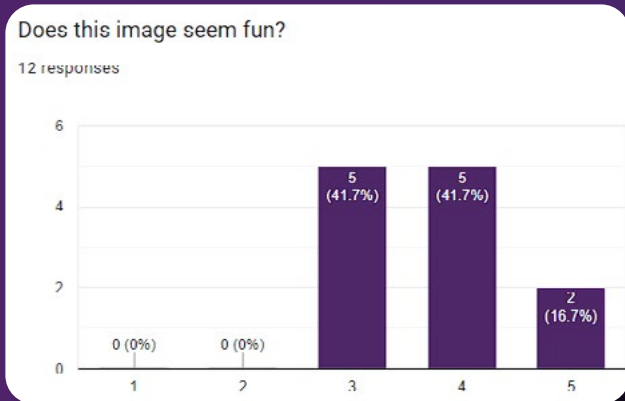
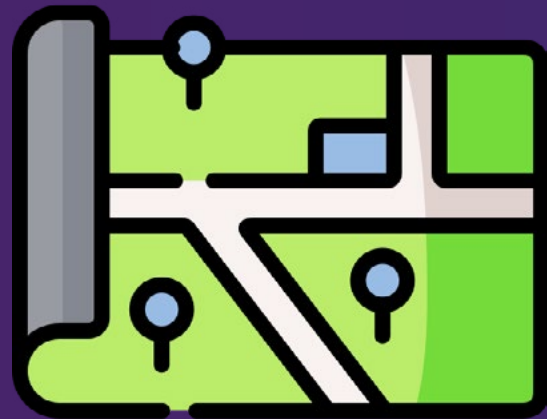
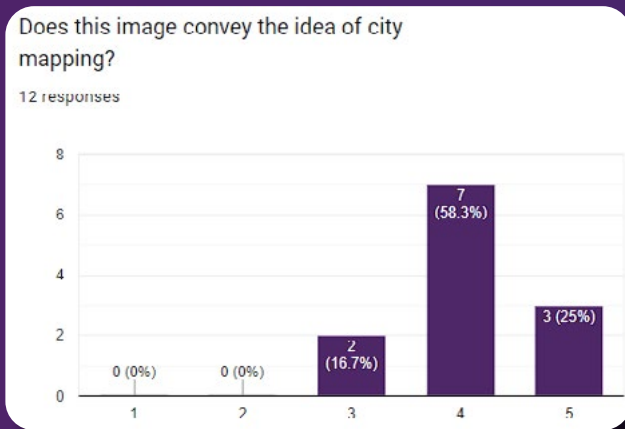
Overwhelmingly testers agreed that the second icon was more recognizable as a global map. Since our selected icon and option three got no votes, and had the least identifiable land masses, we have decided to mimic option two and create a recognizable green and blue global map with smaller pins.



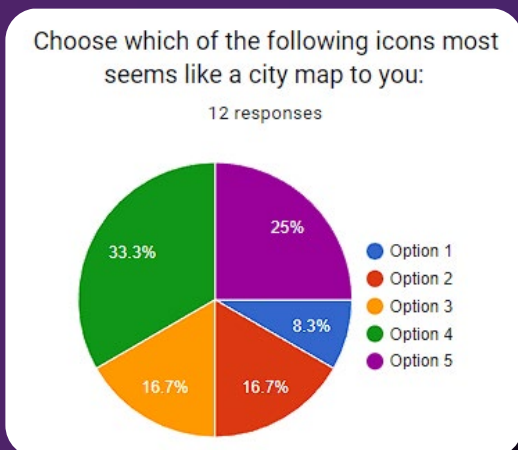
RESULTS INFORMATION SCENT

ICON TEST THREE: CITY MAPPING

Many city planners and developers need building mapping or residential topography mapping for their projects. A wider retail demographic needs to recognize the city element of these maps, and it seems like with some minor hesitation, the testers agreed that our icon selection was familiar and conveyed the core idea of a city.



PREFERENCE TEST: CITY MAPPING



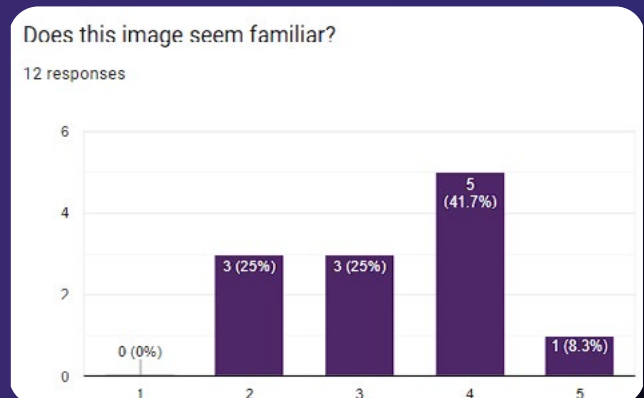
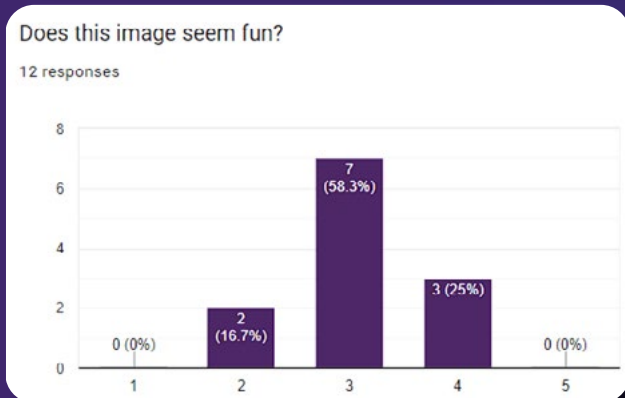
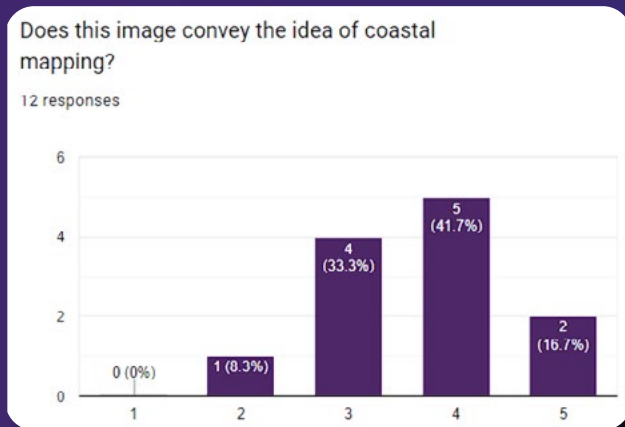
It is notable however that this icon scored lower than most in the "fun" category, and the third icon in the preference test, which narrowly claimed the most votes, conveys more color and cohesive city elements, like water features, multicolored terrain, and a pin, which will all be in the final version.



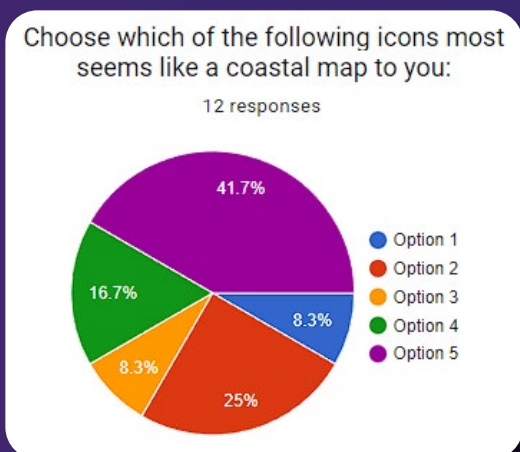
RESULTS INFORMATION SCENT

ICON TEST FOUR: COASTAL MAPPING

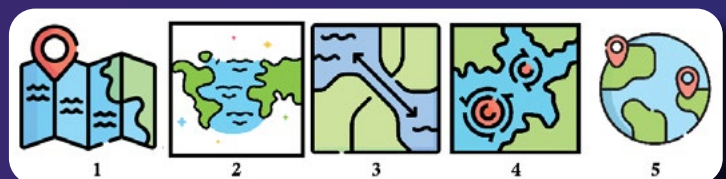
Coastal mapping is a complex and less-adopted service of GeoMap global, as the specific needs of customers are unique. Our coastal mapping icon scored lower than most on fun, familiarity, and its ability to convey the core idea. Likely, we will need to move in a very different direction with this icon, such as option five in the preference test below.



PREFERENCE TEST: COASTAL MAPPING



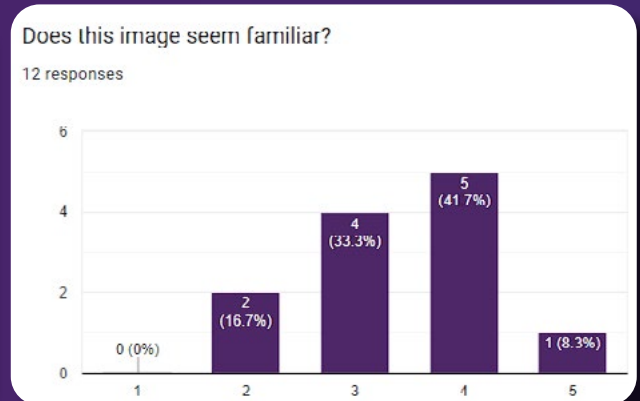
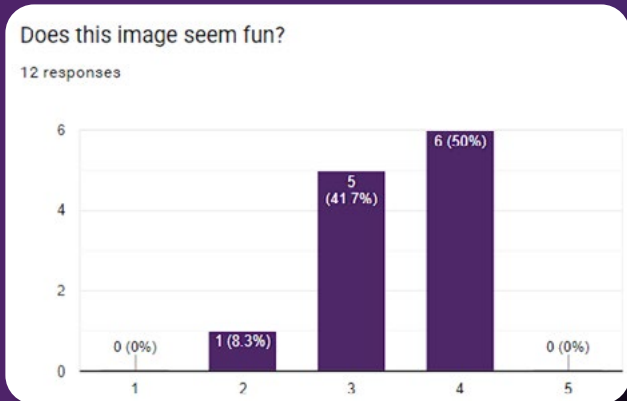
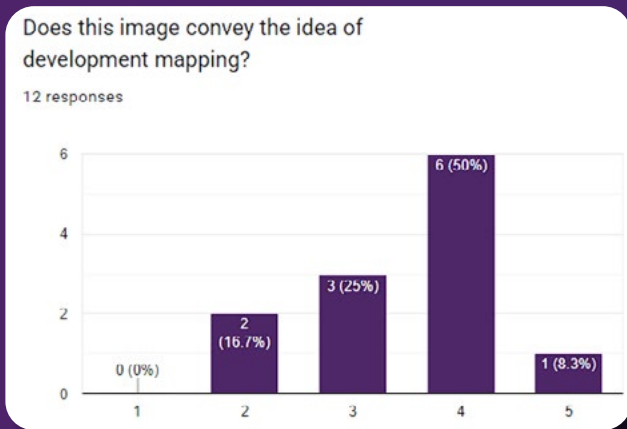
The majority of testers considered option five to be the most like a coastal map. This option has a distinct globe shape compared to the other sample set, and the simple pins, while not exactly precise on the left example, do indicate the coast. We will mirror option five with precise continents like in option two.



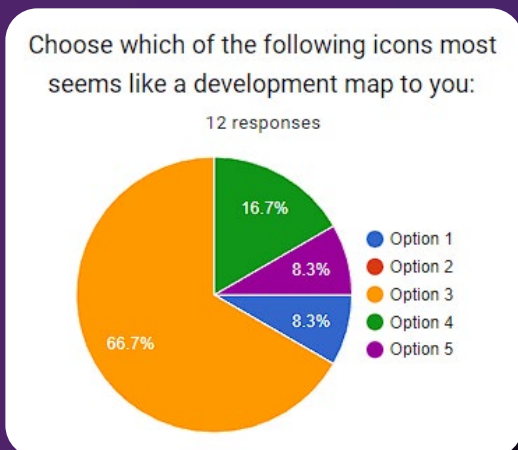
RESULTS INFORMATION SCENT

ICON TEST THREE: DEVELOPMENT MAPPING

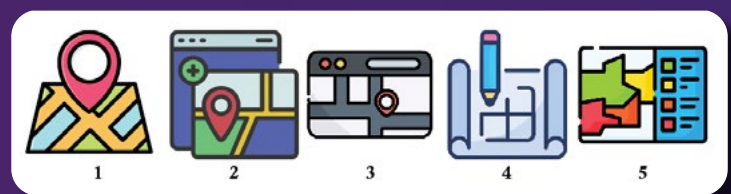
Development mapping, typically called surveying, is one of the oldest and most important foundational services of GeoMap global. Unfortunately, not only did users express some notable hesitation that this icon conveyed the idea of development mapping, but also that it was neither very familiar or fun. What's more, our icon scored quite low in the preference test.



PREFERENCE TEST: DEVELOPMENT MAPPING



Our icon selection garnered a single vote for preference, while option three took two-thirds of the entire votes. The clear indication of streets, black and white color scheme, and small pins, alongside the “app-like” interface around the icon, all give a cohesive idea of “development” that will be included in the final.



CONCLUSION

PREFERENCES AND PRECISION

Much of what we learned over the course of this study had to do with the distinct reactions of users who saw our icon selection compared to others, and saw in those other options some characteristics which our selections lacked. Take for example our last icon, Development Mapping. Over two-thirds of our participants agreed that an alternative icon was the “best” option of the sample set. This is very valuable data as it identifies specific trends and characteristics that we can extract, and with group consensus in larger numbers, we can pull more of those characteristics out of the popular choice.

Moreover, our tests showed that while we are on the right track with fun and familiarity, we still have room for improvement. Taking a notes on the highest-scoring fun icons, for example shows us that distinct lines with a larger stroke may give a more lighthearted feeling, such as the Global Mapping and Development Mapping icons. However, until more users score in the five range, we can consider this room to improve the quality and detail of the icons we eventually present in our final round.

FINAL THOUGHTS

Many participants recorded a fundamental understanding of the core principles required to offer quality feedback in this survey. What's more, they fit our target demographic quite nicely. This means that in general, our positive feedback means we are heading in the right direction, and with some minor corrections, we can incorporate these details into an impressive set of navigation icons for GeoMap Global's homepage that will serve them for years to come.

BIBLIOGRAPHY




- All icons were sourced from Flaticon.com.
- Survey conducted through Google Forms.
- Cover image sourced from Pexels.com.

BRUTAL DOODLES DESIGN COMPANY

Brutal Doodles Design Company is owned and operated by the legendary J.D. Fernandez (Winters), author of over 150 Amazon best-selling novels (in his dreams at night, at least).



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