



Happy Dog.  Happy Life.



PawPacer

A wellness app to help dogs and owners balance physical, mental & social health

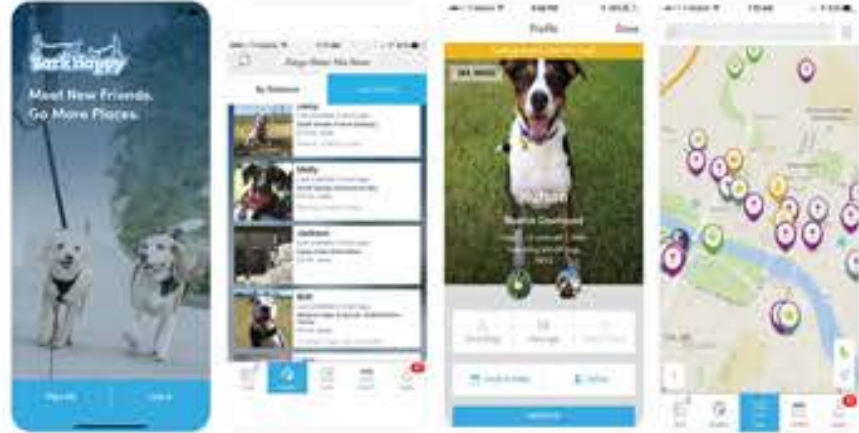
Research | Fall 2021

Social Dog Destinations



BarkHappy
BarkHappy Inc.
Designed for iPhone
★★★★☆ 4.5 (10,000+)
Free - Offers In-App Purchases
[View on Mac App Store](#)

iPhone Screenshots

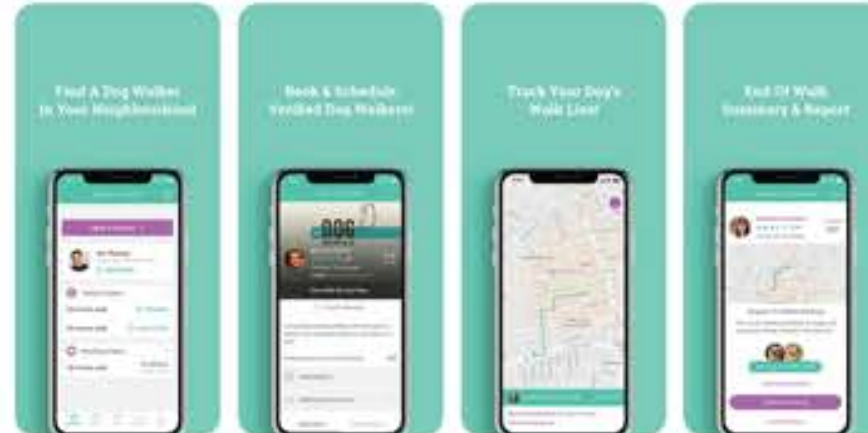


Dog Routing



Dogiz
Dogiz
Designed for iPhone
★★★★☆ 4.5 (10,000+)
Free
[View on Mac App Store](#)

iPhone Screenshots



Dog Health



Whistle: Smart Pet Tracker
GPS + Health + Fitness
Whistle
Designed for iPhone
★★★★☆ 4.5 (10,000+)
Free
[View on Mac App Store](#)

iPhone Screenshots



Fitness



Strava: Run, Ride, Swim
Track activity & map routes
Strava, Inc.
4.5 in Health & Fitness
★★★★☆ 4.5 (10,000+)
Free - Offers In-App Purchases

Screenshots



Trails



AllTrails: Hike, Bike & Run
GPS Hiking & Biking Trail Maps
AllTrails, Inc.
4.5 in Health & Fitness
★★★★☆ 4.5 (10,000+)
Free - Offers In-App Purchases

Screenshots



Play

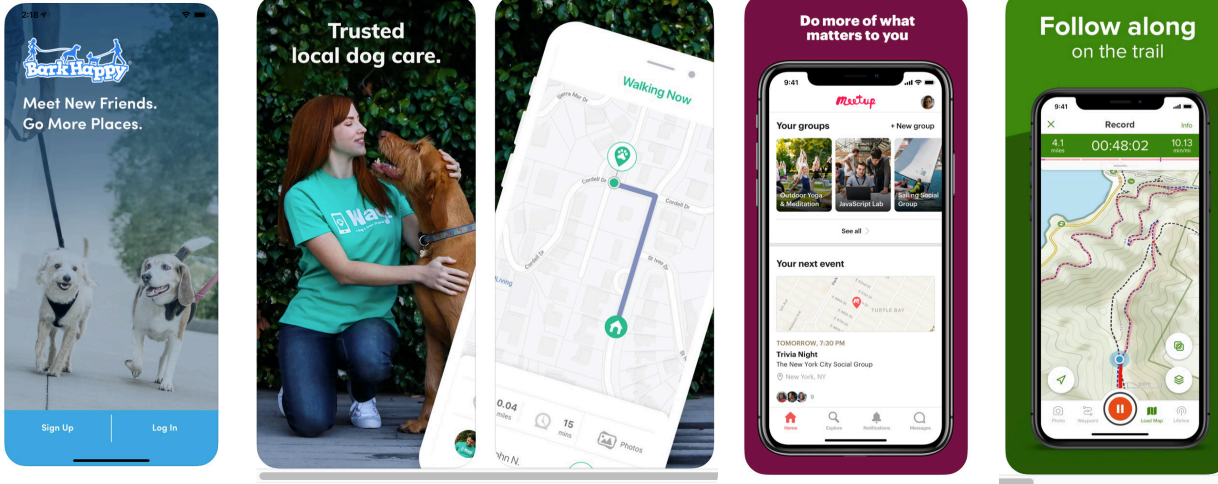


Scavenger - Easy AR Creation
Play & Create World-Scale AR
Arped Labs UG haftungsbeschränkt
★★★★☆ 4.5 (10,000+)
Free - Offers In-App Purchases

Screenshots



THE COMPETITION



To create features that would be in-line with what users were expecting and wanted to use, research was conducted online to determine what competition existed in the area of dog walking apps, meeting apps, social apps, exploring apps and rating apps. This allowed the case study to develop the tasks and flows that would be needed in order to finalize the app features, build the wire frames to visualize the screen layouts and produce a journey map to help construct the key walking feature and test navigation in a click-able prototype.

CURRENT SIMILAR APPS:

[Woof Trax](#)
[Bark Happy](#)
[Paw Parks](#)
[Wag](#)

APS WITH SIMILAR PROCESSES:

[Meet Up](#)
[Facebook](#)
[All Trails](#)
[Yelp](#)
[Pedometer Step Tracker](#)

KEY TAKE-AWAYS

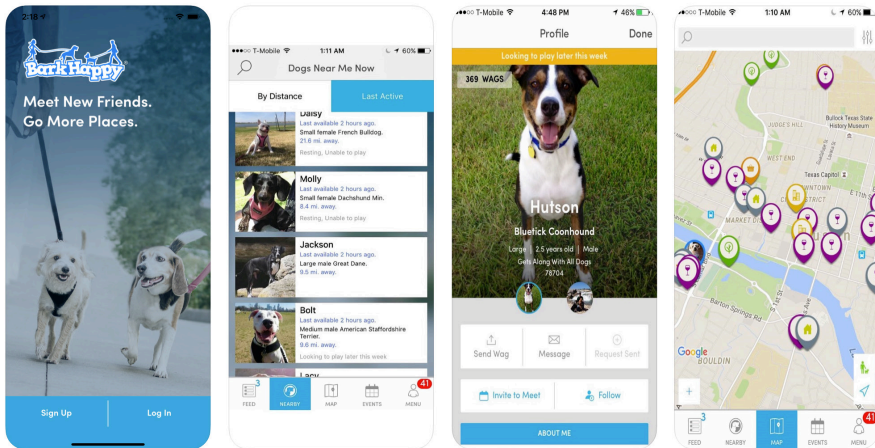
- Keep screens simple, buttons large
- Limit number of screens to accomplish tasks & utilize similar journeys
- Make it fun & easy for daily use
- Use existing apps for mapping, reviews and calendar use
- Utilize existing patterns of behavior for filling out forms, creating profiles & fitness tracking

TOP COMPETITORS

Bark Happy:

Pros: Dog and owner profiles, interactive map shows dogs in the area and dog friendly destinations, has a lost & found board, has a notification alert for dogs in the area, has a dog pack group and allows messaging and inviting of dog friends, has a calendar feature to create walking events and to view upcoming events of dog walking in the area.

Cons: Pictures of the area are hit or miss, cannot filter by type of dog to insure small dogs don't mix w/ large dogs if its frightening to them, cant track distance, cant track time or rate routes.



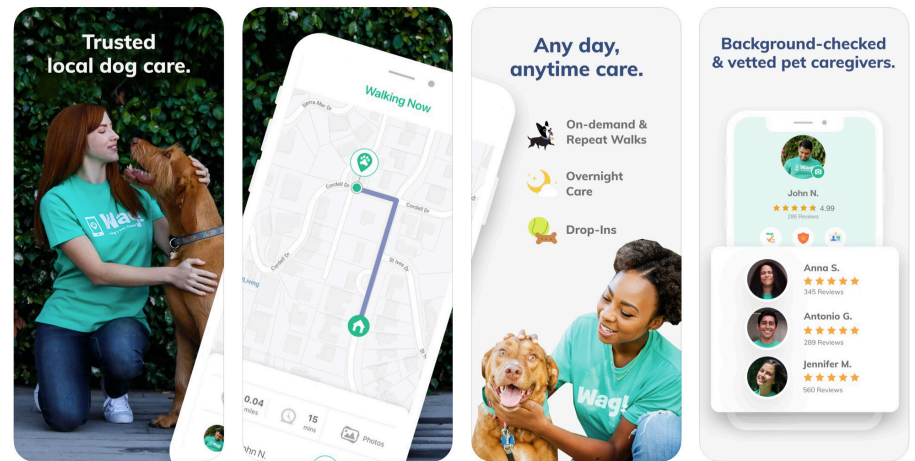
Bark Happy:

<https://apps.apple.com/us/app/barkhappy/id737271907>

Wag:

Pros: Convenience of scheduling a 20,30 or 60 min walk, free drop box key to put out to get the dog, pictures of confirmation of walking, Used by pro walkers to track dog walks & report to clients. Pinpoints exactly where the dog has gone pee/poo and it tracks mileage and how many feet you've walked. Can take photos to show client you were at the house and walked the dog.

Cons: Poor customer support for Dog Walkers, WAG walkers are not vetted or trained well-causing safety concerns and app is expensive.



Wag:

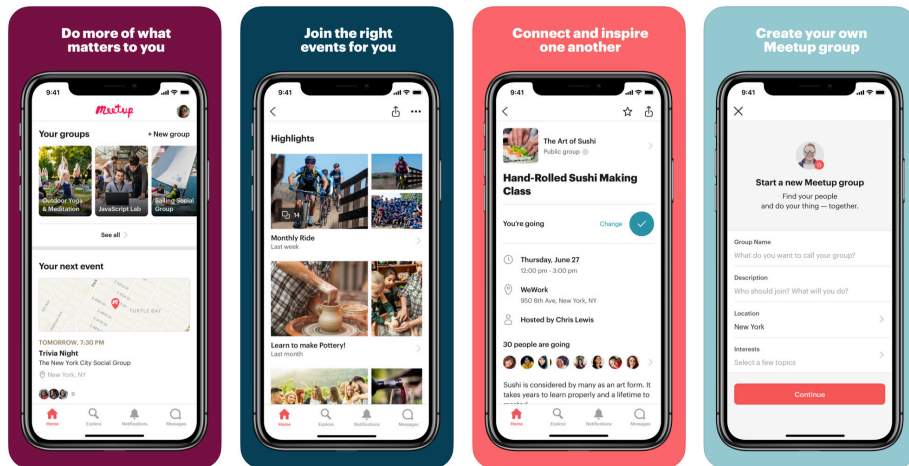
<https://app.wagwalking.com/>

SIMILAR COMPETITORS

Meet Up:

Pros: Has multiple groups you can join to meet up, provides event calendar for meetups, has profiles of the members and requires applying and joining into specific groups

Cons: Limited to just the meetup, not a lot of info regarding the information about the meetup except for what is posted by the group administrator

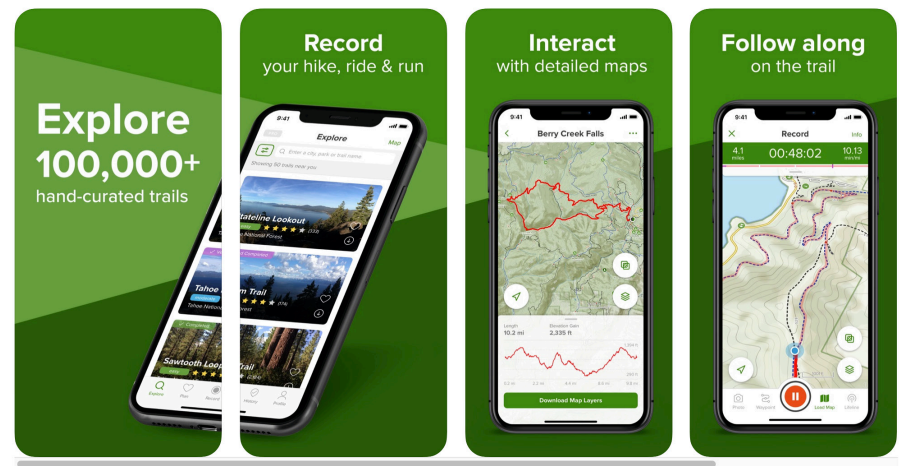


Meet Up: <https://apps.apple.com/us/app/meetup/id375990038>

All Trails:

Pros: Can record your hike, walk or run, can interact with map, can follow along the trail, has images of trails to view

Cons: Load times are long, cant view very well on the iWatch, does not provide hazard warnings that will prepare riders for obstacles and avoid injury



All Trails: <https://apps.apple.com/us/app/alltrails-hike-bike-run/id405075943>

THE COMPETITION - FULL RESEARCH LISTS

To create features that would be inline with what users were expecting and wanted to use, research was conducted online to determine what competition existed in the area of dog walking apps, meeting apps, social apps, exploring apps and rating apps. This allowed the case study to develop the tasks and flows that would be needed in order to finalize the app features, build the wireframes to visualize the screen layouts and produce a journey map to help construct the key walking feature and test navigation in a click-able prototype.

RESEARCH

CURRENT SIMILAR APPS:

Bark Happy: <https://apps.apple.com/us/app/barkhappy/id737271907>
Woof Trax: <https://apps.apple.com/us/app/wooftrax-walk-for-a-dog/id643857704>
Paw Parks: <https://apps.apple.com/us/app/paw-parks/id937974538>
Play Pal Dog Park Buddy: <https://apps.apple.com/us/app/playpal-dog-park-buddy/id1266153067>
Finding Rover: <https://apps.apple.com/us/app/finding-rover/id669691504>
Sniff Spot: <https://apps.apple.com/us/app/sniffspot/id1437699295>
Tractive Dog Walker: <https://apps.apple.com/us/app/tractive-dog-walk/id979568080>
Wag: <https://app.wagwalking.com/>

ADDITIONAL APPS WITH SIMILAR PROCESSES:

Weather Underground: <https://apps.apple.com/us/app/weather-underground/id486154808>
Pedometer Step Tracker: <https://apps.apple.com/us/app/pacer-pedometer-step-tracker/id600446812>
Meet Up: <https://apps.apple.com/us/app/meetup/id375990038>
Find My Friends: <https://apps.apple.com/us/app/find-my-friends/id466122094>
Match: <https://apps.apple.com/us/app/match-1-dating-app/id305939712>
Facebook: <https://apps.apple.com/us/app/facebook/id284882215>
Neighborhood: <https://apps.apple.com/us/app/nextdoor-local-neighborhood/id640360962>
All Trails: <https://apps.apple.com/us/app/alltrails-hike-bike-run/id405075943>
Yelp: <https://apps.apple.com/us/app/yelp-food-services-around-me/id284910350>
Open Table: <https://apps.apple.com/us/app/opentable/id296581815>





PHYSICAL | MENTAL | SOCIAL

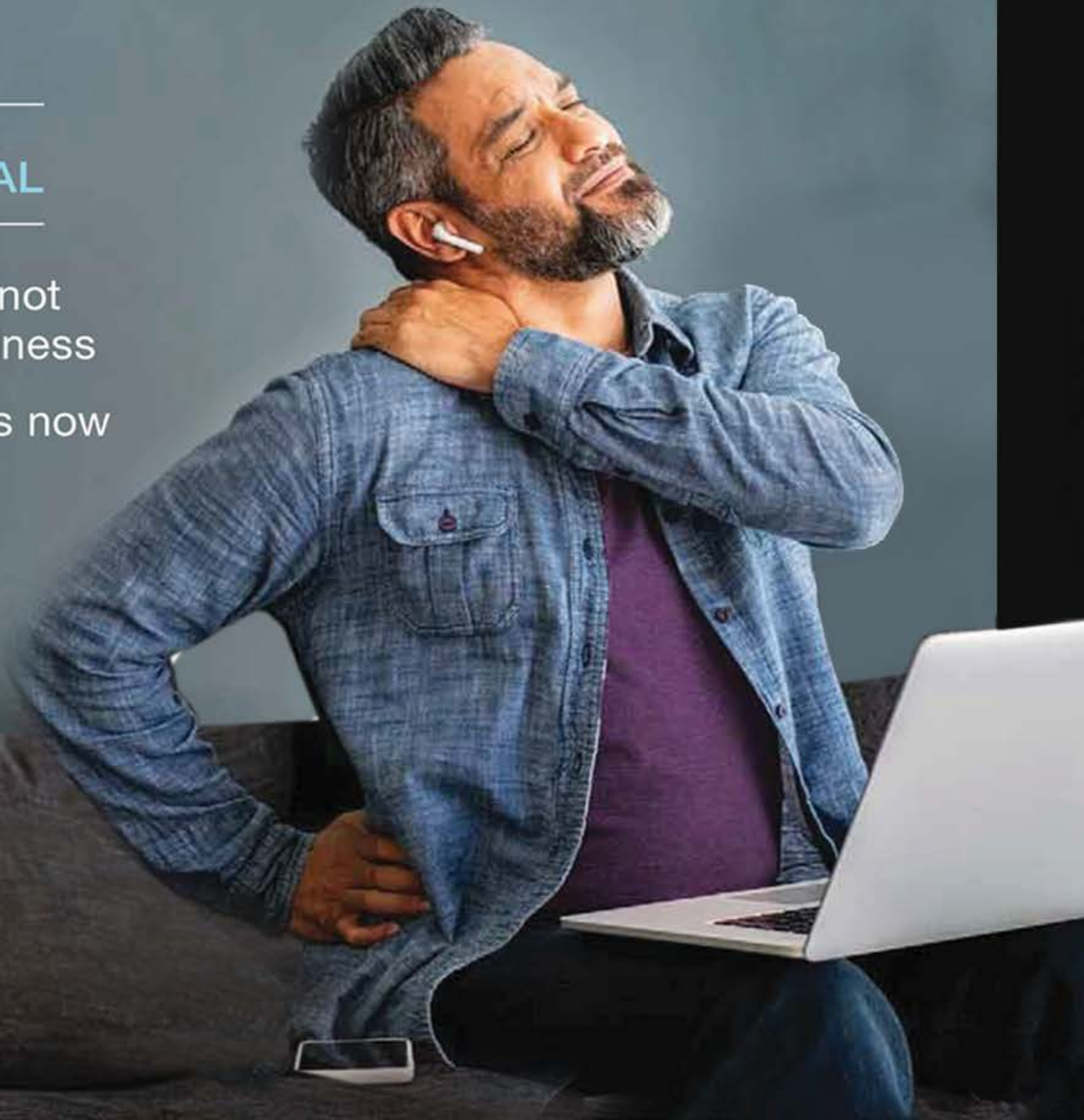
- Over 35% of dogs in the U.S. suffer from obesity due to overfeeding and lack of exercise
- After 4 hours alone at home dogs suffer from depression, loneliness and frustration
- Without regular socialization, dogs exhibit destructive, behavioural issues





PHYSICAL | MENTAL | SOCIAL

- The new office/classroom is not so awesome for physical wellness
- Work, play and study routines now overlap creating a mental toll
- Online overload and isolation affects needed socialization





90%

Owners **feel guilty** when they do not walk their dog

YET



35%

Owners **do not walk** their dogs

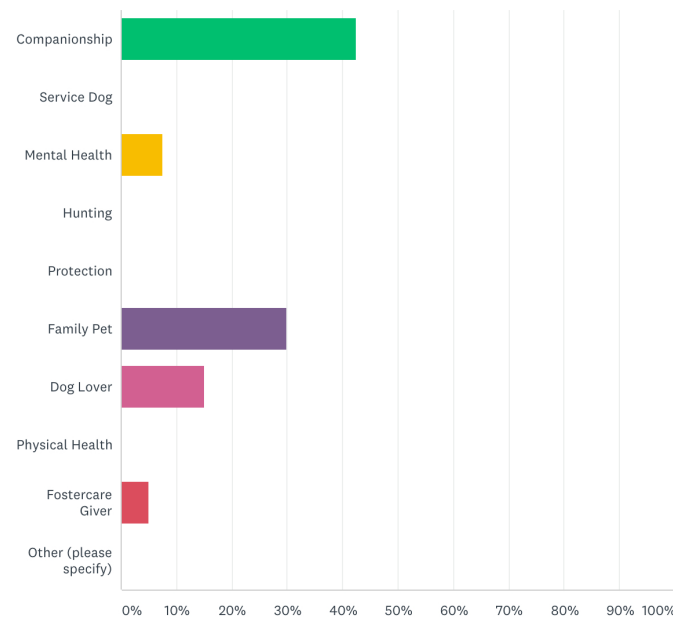


Owner Survey 1 Q & A Results

SURVEY TEST QUESTIONS ANSWERED

Q 1 Results

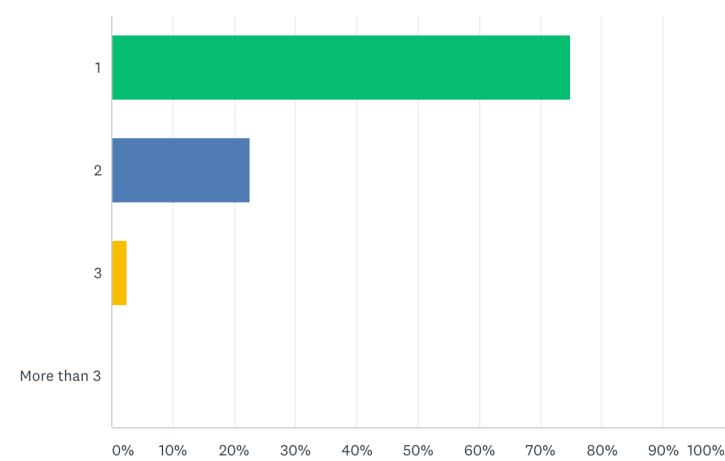
Why did you get a dog?



ANSWER CHOICES	RESPONSES	
Companionship	42.50%	17
Service Dog	0.00%	0
Mental Health	7.50%	3
Hunting	0.00%	0
Protection	0.00%	0
Family Pet	30.00%	12
Dog Lover	15.00%	6
Physical Health	0.00%	0
Fostercare Giver	5.00%	2
Other (please specify)	Responses 0.00%	0
TOTAL		40

Q 2 Results

How many dogs do you own?

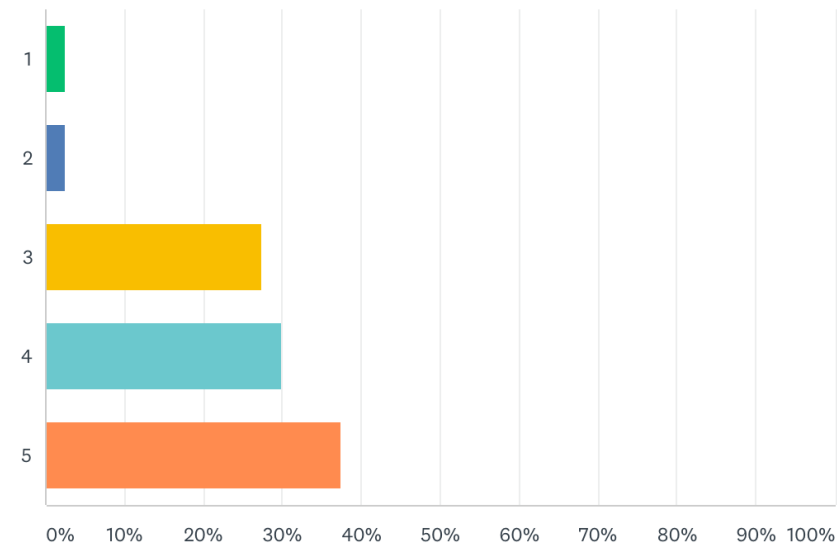


ANSWER CHOICES	RESPONSES	
1	75.00%	30
2	22.50%	9
3	2.50%	1
More than 3	0.00%	0
TOTAL		40

Owner Survey 1 Q & A Results

Q 3 Results

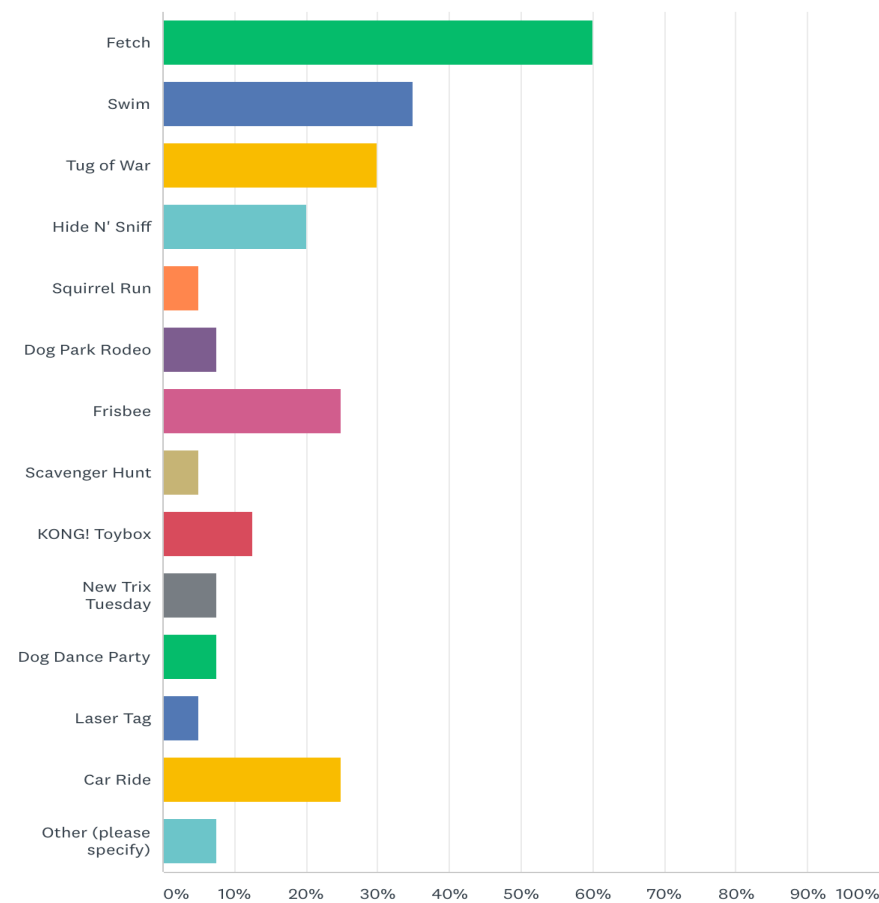
On a scale of 1-5, 5 being the best, how happy does walking your dog make you?



ANSWER CHOICES	RESPONSES	
▼ 1	2.50%	1
▼ 2	2.50%	1
▼ 3	27.50%	11
▼ 4	30.00%	12
▼ 5	37.50%	15
Total Respondents: 40		

Q 4 Results

What activities would you like to play with your dog?



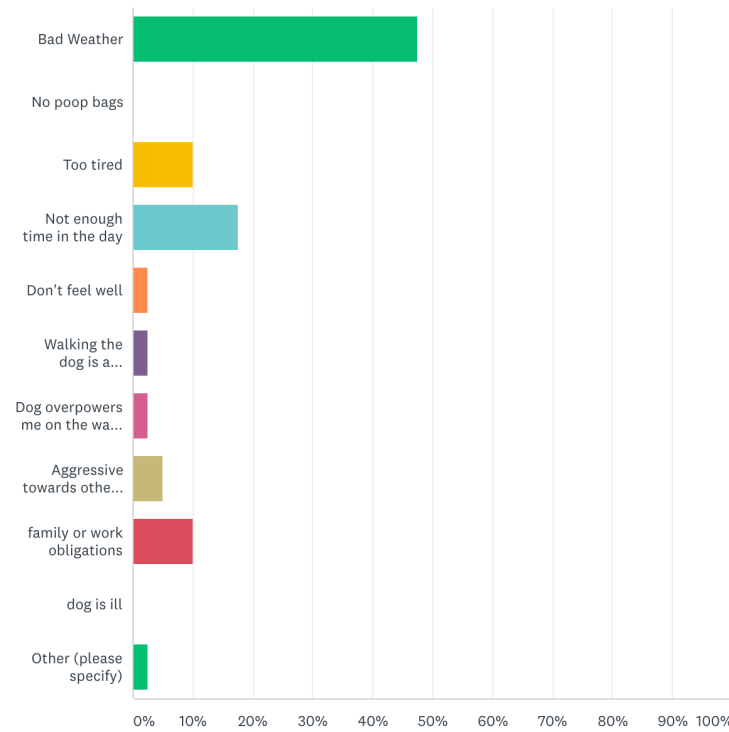
ANSWER CHOICES	RESPONSES	
▼ Fetch	60.00%	24
▼ Swim	35.00%	14
▼ Tug of War	30.00%	12
▼ Hide N' Sniff	20.00%	8
▼ Squirrel Run	5.00%	2
▼ Dog Park Rodeo	7.50%	3
▼ Frisbee	25.00%	10
▼ Scavenger Hunt	5.00%	2
▼ KONG! Toybox	12.50%	5
▼ New Trix Tuesday	7.50%	3
▼ Dog Dance Party	7.50%	3
▼ Laser Tag	5.00%	2
▼ Car Ride	25.00%	10
▼ Other (please specify)	Responses 7.50%	3
Total Respondents: 40		

Owner Survey 1

Q & A Results

Q 5 Results

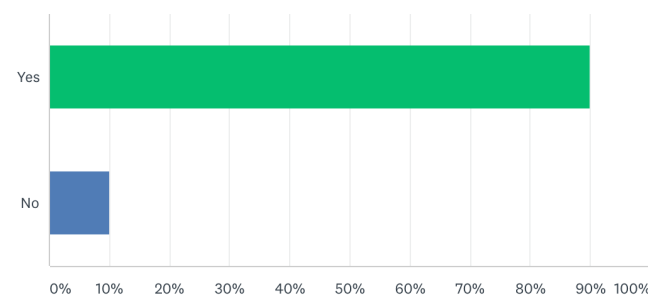
What prevents you from walking your dog each day for the right amount of time needed to be physically & mentally fit?



ANSWER CHOICES	RESPONSES
Bad Weather	47.50% 19
No poop bags	0.00% 0
Too tired	10.00% 4
Not enough time in the day	17.50% 7
Don't feel well	2.50% 1
Walking the dog is a nightmare - not trained well	2.50% 1
Dog overpowers me on the walk, causes pulled muscles	2.50% 1
Aggressive towards others & gives me anxiety	5.00% 2
family or work obligations	10.00% 4
dog is ill	0.00% 0
Other (please specify)	Responses 2.50% 1
TOTAL	40

Q 6 Results

Do you feel guilty when you don't walk your dog?

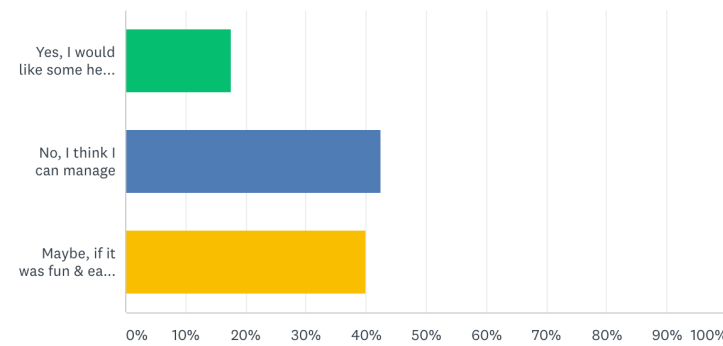


ANSWER CHOICES	RESPONSES
Yes	90.00% 36
No	10.00% 4
TOTAL	40

Owner Survey 1 Q & A Results

Q 7 Results

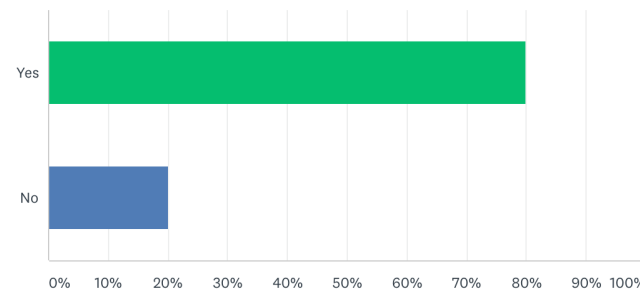
Would you like alerts & tips to walk, play and socialize your dog in order to achieve their best physical & mental health?



ANSWER CHOICES	RESPONSES
Yes, I would like some help & tips	17.50% 7
No, I think I can manage	42.50% 17
Maybe, if it was fun & easy to use	40.00% 16
TOTAL	40

Q 8 Results

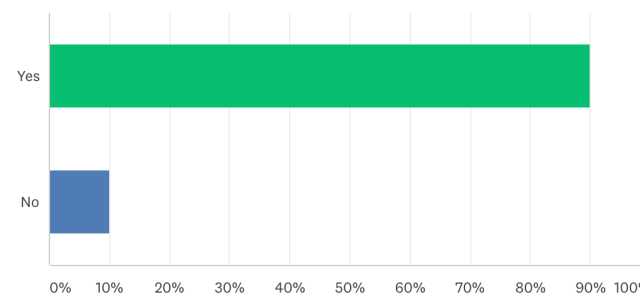
Would you like to know what your dog is saying to you?



ANSWER CHOICES	RESPONSES
Yes	80.00% 32
No	20.00% 8
TOTAL	40

Q 9 Results

Do you worry about if your dog is happy?

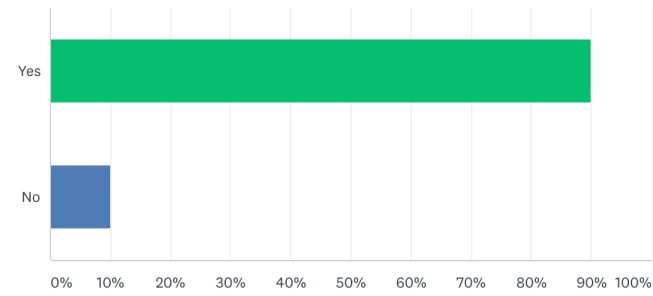


ANSWER CHOICES	RESPONSES
Yes	90.00% 36
No	10.00% 4
TOTAL	40

Owner Survey 1 Q & A Results

Q 9 Results

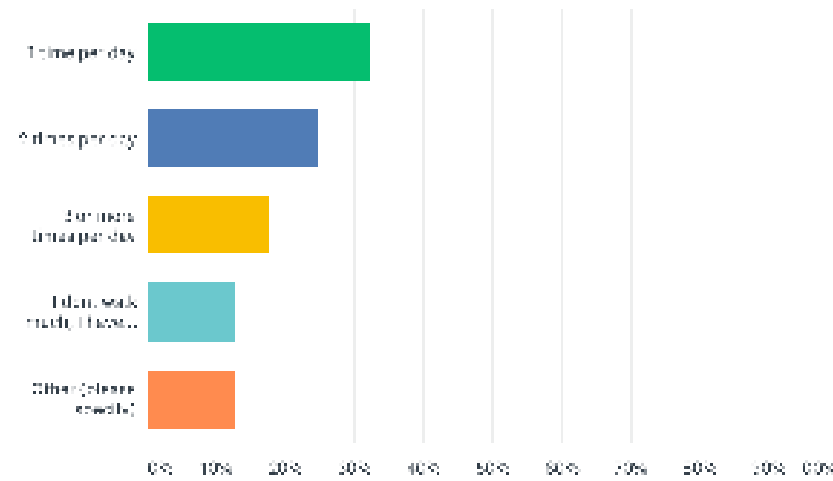
Do you worry about if your dog is happy?



ANSWER CHOICES	RESPONSES	
Yes	90.00%	36
No	10.00%	4
TOTAL		40

Q 10 Results

How often do you walk your dog?



ANSWER CHOICES	RESPONSES	
1 time per day	32.50%	13
2 times per day	27.50%	11
3 or more times per day	17.50%	7
I don't walk much, I have to jogged they run around in	12.50%	5
Other (please specify)	9.50%	4
TOTAL		40



“ Dogs learn a lot in the first 6 months about how to relate to other dogs, their owners, family members and others they meet later on. Without social activity, the mental state of the dog is severely compromised. Exercise has a direct connection on a dog's mental health status. ”

- Dr. Liz Hartnett,
Long Lake Veterinary Clinic



SUBJECT MATTER EXPERTS

Dr. Liz Hartnett, vet specialist in dog health & nutrition

Dr. Hartnett owns and operates the Long Lake Veterinary Clinic in Long Lake, Minnesota. She received her Doctorate of Medicine (DVM) from Saint Matthew's University on Grand Cayman Island. She completed her clinical year of veterinary school at the University of Minnesota. Special interests in Chinese medicine, acupuncture, alternative medicine and nutrition. Dog expert & owner interpreter.

longlakeveterinaryclinic.com/about-us

Calee Cecconi, educator & artist

Full-time art and design practice and graphic design educator at Minnesota State -Mankato and MCAD. Designer, multimedia artist, educator and art and passionate about design for good and social justice. Wicked problem instigator.

chimesdesign.com

Matthew Luken, educator & director of UX design

UXDesign Director, Vice President - Digital Accessibility for U.S. Bank, educator and mentor at MCAD & U of MN- Twin Cities respectively. A fervent User Experience and Service designer, digital strategist and critical thinker working for the inclusion of all users. Master problem solver of many wicked things.

matthewluken.com

OUTSIDE AUDIENCES

Second Hand Hounds:

Jeanne Minnick

Over 10 years of experience with dog rescue and fostering dogs of all sizes, breeds and health. Provides the unique viewpoint of the value of good physical & mental health for dogs. Opportunity to gain insight on needs for dogs coming into and going out of rescue to new homes. How to guide for helping dogs at all entry levels gain a good balance of physical and mental fitness.

<https://www.secondhandhounds.org/>

National Dog Day:

www.nationaldogday.com

National Dog Day celebrates all dogs, mixed breed and pure. Our mission is to help galvanize the public to recognize the number of dogs that need to be rescued each year and acknowledges family dogs and dogs that work selflessly each day to save lives, keep us safe and bring comfort. Opportunity to create a campaign around this date to highlight the "Be a Dog Walker" video 2.0

<https://www.nationaldogday.com/>

Subject Matter Expert Interview 1

**Veterinarian, Dr. Liz Hartnett,
Long Lake Veterinary Clinic**
Phone Interview

Q1. What can diet, exercise & socialization do for a dog's longevity?

Diet is definitely a big topic and what you feed your dog can affect their weight, mood, mobility and how long they live. Also really important is their socialization. They learn a lot in the first 6 months about how to relate to other dogs, their owners, family members and others they meet later on. Without social activity, the mental state of the dog is severely compromised. Exercise is in direct connection also with how their mental health status is doing. They go hand in hand. You cannot have one without the other.

Q2. How do you tell if dogs are mental fit & happy?

There are physical signs that let owners know their dog is ok like a loose jaw & muzzle, soft eyes, relaxed body and of course a wagging tail. And when your dog is not happy you can see just the opposite. They will have a tense, stiff stance. Excessive panting can show stress or anxiety. Mouth is clenched, ears pulled back and a stiff tail can show aggression. Curled down with drooping eyes can convey sadness or feeling bad. Dogs can also express unhappiness with destructive behavior in their house by soiling indoors, aggressive behavior towards other dogs and people or destroying any item.

Q3. What do you see as current trends to help owners engage better with their dog's well being?

Doggie daycares are becoming huge and I'm seeing they are now booked up fast. As we entered the pandemic, many new dog adoptions. As owners are transitioning back to work, dogs are having to cope w/ their new routines. There is limited social interactions w/ their owners, more time on their own. Many have never experienced this. I would definitely check w/ a doggie daycare about what they are seeing daily regarding dog happiness.

Q4. Do you think playtime could use gaming to engage dogs & owners to exercise and play regularly?

Yes, dogs' natural instincts are to please their owners and they work hard to do just that. Engaging their other senses like smell to find scents and play are great ways to keep them engaged with mental and physical exercise. They also naturally want to be working and doing. An activity that engages that natural instinct is good for the overall well being for dogs and owners.

Subject Matter Expert Interview 2

Educator & Artist, Calee Cecconi
[Design Concept Review](#)
[Email Interview](#)

Q1. How do I make the app fun to motivate dog owners to use it?

Try to utilize the data. Focus on how much owners spend on their dogs and what they spend it on. A fantastic idea is to offer free digital gear since I'm a poor grad student. "People love free avatar gear for their apps..." how bout a free doggie avatars or doggie attire to personalize their profile, similar to how owners dress their actual dogs up. Use the map feature for collecting certain things on the map which gave folks points towards gear they could get for their dogs or maybe a collection of points owners earned could buy virtual things like their avatars. People like that stuff.

Destinations on the map could also be set up as places that got folks involved with volunteering and other events. Another way to get solve wicked problems.

Research: My research found a cool app that translates your dog's barks. I want to utilize this and have recorded several different barks that I will use as the alert noise when it's time to walk, play or socialize. The owner can set up the bark to be their dog upon start or add on later. This could be a unique feature that helps the app stand apart from others.

Take aways: Add gamification, subscriptions or competition. Doggie avatar gear could be a great addition for interaction and motivation to keep going for some owners. Use a survey to find out more. Use dog volunteering or dog fundraising events to tie in with the app.

Q2. What about how dark all the screens are for a would be fitness & mental health app? Should I change it and start again? I feel like it should be more fluid and zen like.

"Black for mental health is bad"—actually, I will counter that with it being good. Bright screens are really bad for our mental health, and I think that's why Apple's introduced Dark Mode. I use Headspace with the app on dark mode and it's still fun and cute and great for mental health. What if you designed a dark mode and a light mode and allowed folks to choose?

Research:

UX Design Collective: [Dark is Mentally Good](#)

Apple Developer: [Dark Mode Guidelines](#)

Take aways: Add gamification, subscriptions or competition. Doggie avatar gear could be a great addition for interaction and motivation to keep going for some owners. Use a survey to find out more. Dark mode is good for mental health, explore a light mode and dark mode. One can be for future iterations and explorations.

Q3. Am I really solving any problems here? Is this capstone viable?

Honestly, I think that getting people out for exercise and getting people interacting together solves some of the issues that the pandemic raised.

Many people who have dogs are not naturally social. I never saw owning a dog as a social thing (my dog was a jerk to other dogs and people), but I think your app gives this impression and it would encourage those who are not social or who are otherwise isolated to be more social. I could see owners who have anxiety using this app to do some fun gaming or volunteering and meeting people while they are at it.

Take aways: Physical, mental & social health balance is a wicked problem that needs solving. Worldwide issues of mental health, social isolation and death due to health issues before, during and after a pandemic.

Subject Matter Expert Interview 3

“ I’m a dog fosterer because I love dogs, but also love volunteering and volunteering while being with something you love makes it even more enjoyable.”

- Jeanne Minnick, Foster care dog mom

Foster Dog Rescuer, Second Hand Hounds, Jeanne Minnick
Caregiver Insights
Email & phone Interviews

Q1. What physical signs show you a dog is happy?

Wagging tail, licking, playing, relaxed, wanting to be near or on you.

Q2. How do you tell when dogs are unhappy?

Tense, shrinking away, hiding, low tucked tail

Q3. How do you determine how much exercise a dog gets when you first get them in?

When I first get a foster the rescue vet checks them out at intake and assesses physical health which includes weight. If overweight, I make sure they go on longer walks more often and take into consideration their size, age and breed to determine how much exercise they need.

Q4. Would it be helpful to have an app that keeps track of each foster dog’s information to stay organized?

An app would be helpful as I find myself looking online or trying to find the paperwork from the rescue or vet.

Q5. Would you use an app to alert, find timed walking routes & track physical & mental fitness of your foster dogs?

I might but I think I would use it more to track the foster dog's information as suggested in number 4.

Q6. Do you think new owners would appreciate a checklist of their new dog’s mental & physical status ?

I think new owners would appreciate something like this. Especially first time dog owners who might not know how much exercise their dog needs.

Q7. When and how often do you play with your dogs?

I usually play with my dogs mostly after work because we are all excited to see each other. I walk my 2 small dogs in the AM and larger foster dog who needs more exercise in the PM.

Q8. How do you socialize your dogs?

It's easy for me to socialize my dogs because there are always dogs coming and going at my house. I also socialize them on walks, playdates and the dog park.

Q9. How many dogs do you foster usually at one time?

I usually foster one at a time since I own multiple dogs myself but I have had crossover between one coming and one leaving on occasion.

Q10. Why are you a foster care provider?

I'm a dog fosterer because I love dogs, but also love volunteering and volunteering while being with something you love makes it even more enjoyable. I also like helping a dog find its forever home and making sure they go to the best fit home possible for them based on their needs.