

Airport Experience for Users with Luggage

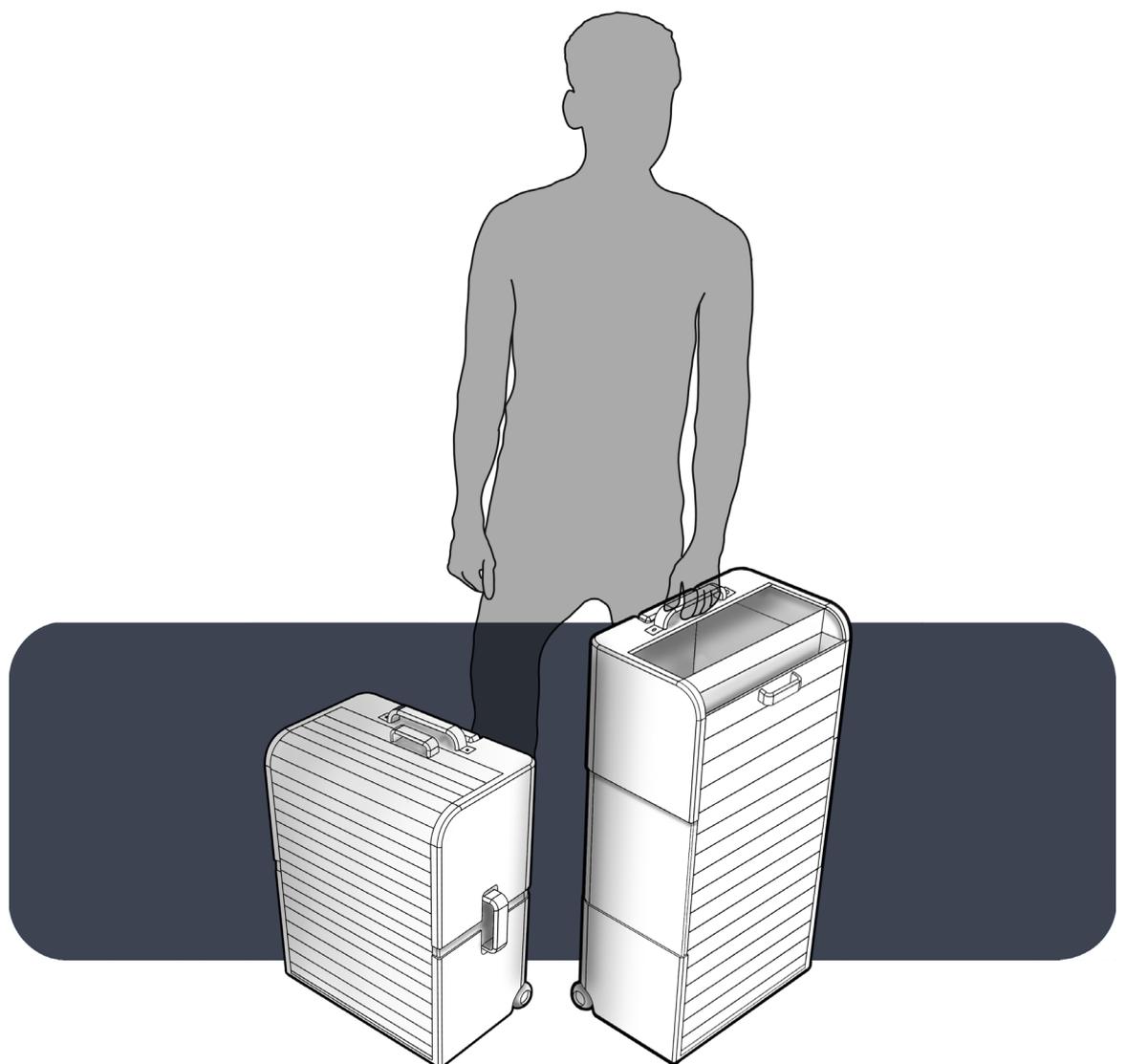
Queensland University of Technology
Industrial Design

Abstract

Airports worldwide have changed for the worse since the pandemic, with one majorly affected area being user experience at the airport. User experience at the airport covers many areas, with their being no one solution to all the problems. So this report looks into one area of user experience at the airport, which is luggage. The goal is to improve one small aspect of user experience at the airport to chip away at the problems the pandemic has caused and problems that predate the pandemic.

The majority of the research on user experience with luggage is based on tracking the luggage. So this report will look into luggage tracking and see if there is any viable gap in the research and to branch away from the literature and explore other aspects of user experience with luggage such as sizing and mobility and explore those areas to fill in those areas of research.

The research of this report will look into key aspects of the user's experience with luggage through interviews and surveys with research conducted on areas of interest such as tracking, sizing and mobility of luggage.



Contents

Introduction	1	
Project Structure	2	
Literature Review	3-4	
Research	5-7	
Analysis & findings	8	
Discussion	9	
Design implications	10-12	
Conclusion	13	
References	14-15	
Appendix	15-31	

Introduction

At the beginning of the decade, the world faced a new reality which was the pandemic. The pandemic forced every industry to change or adapt to these new conditions with no more so than aviation. Aviation has never experienced something of this scale, with even 911 being a blimp on the graph compared to how the pandemic has affected the industry. With IATA stating that 'This is the most profound de-connecting of modern society since World War II'.

One of the effects of the pandemic is user experience at the airport, with many people surveyed finding this new reality at the airport depressing and sterile with little to no interaction. The pandemic also has exacerbated pre-pandemic problems making them a worse experience for the user.

User experience at the airport covers a huge range of areas and touchpoints, with airports being "ecosystems of cocreated services" (Krall, 2015). When looking into the aspects of user experience at the airport, Ben Krall conducted a UX talk where towards the end, he got questioned if he investigated users flying into the airport. This included immigration and luggage pick up, to which he responded that he did not have access and did not know. The fact that he did not research this area is what led to the research on luggage.

This report aims to investigate aspects of luggage, how users interact with it at the airport, and how it affects their experience. This involves aspects of tracking the luggage and what benefits it has for the users and the airline industry, aspects of the user's interaction with existing luggage itself, and how luggage can be revised to improve the user's experience when travelling.

Literature Review

User experience

User experience with luggage

User travel
experience
with luggage

Research

Surveys and interviews

Luggage and tracking

Luggage sizing

Analysis & Findings

Surveys and interviews

Survey findings

Discussion

Design Implications

Conclusion

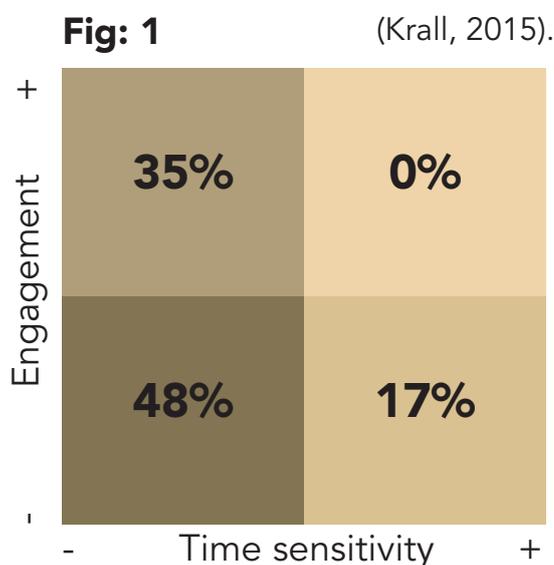
Literature review

User Experience

User experience at an airport can mean so many different things and areas; simply putting it, "airports are ecosystems of cocreated services" (Krall, 2015). Emphasis on services as all aspects of airports are services, and the most common theme when it came to user experience with these services at the airport is time. Every service aims to move a person to the next point as fast as possible, and most interventions are focused on advancing the passenger to the next step quicker. When it comes to the airport, they want to move people through the first stages of the airport to get the user to the money-making areas, the shopping area. Airports also see speed as more people going through the airport with each person equalling more money. Yet this isn't true "you can spend 5 hours inside the airport and not spend a cent, and this is because all the shops are closed at night" (Krall, 2015).

Airports aren't the only factor wanting to speed up the process when it comes to time, as the user also wants to speed up the process for another reason. This reason is time sensitivity, as the risk of missing the plane plays a massive factor in the user experience. Knowing there is a possibility of missing a plane pumps up the stress making each stage of the Airport more intense. There is no user who has high time sensitivity and high engagement Figure 1. "People who care about efficiency are the same people who don't want to be in the airport". (Krall, 2015).

This shows that no user likes waiting in line or waiting for something. They always must be doing something that is engaging for them. In Houston, Texas, the Airport was getting complaints about waiting at the baggage claim. The Airport increased the number of baggage handlers working, but they were still getting complaints. So instead of improving the service or making it faster, or reducing the wait time, they "moved the arrival gates away from the main terminal and routed bags to the outermost carousel" (Stone, 2012). This reduced the complaints to zero. So, like what Ben Krall has stated that time sensitivity and engagement are highly linked. Time goes faster when the user is preoccupied or engaged with something else when waiting.



User Experience with luggage

When it comes to user experience and luggage, a vast majority of the literature is focused on the tracking aspects of luggage and having more comprehensive knowledge of where it is. There is a general direction towards an “interactive bracelet that communicates with the RFID system by means of a database application” (International journal of research, 2014). Luggage tracking is not just for users benefit but more so the airline industry itself as “in 2017 7.3 luggage per 1000 passengers were not delivered properly due to mishandling, exchanging luggage between passengers or security inspections” (PIC, 2017). This number of 7.3 luggage per 1000 passengers sounds like nothing in the grand scheme, but when taken into account that pre-covid 19, there was a total of 4.5 billion people flying, which turns this small into 25.4 million lost bags.

So, giving the user more information and useful features may seem like it is for the user. However, it is more for the airport as most of the literature is adamant about tracking lost luggage, which makes sense for literature to investigate as lost luggage cost the airline industry \$2.5 billion, which is a huge opportunity to solve. Due to the opportunity, the concept of tracking luggage is already in the development stage where versions of luggage tracking already exist with many concepts on how it should work.

There is room for improvement, though, as even with these new developments, lost bags at the airport have not decreased by a major factor, with lost bags per 1000 in 2018 being 5.69 and 2019 being 5.60 (SITA, 2020), which is not much of an improvement showing the stagnation. The most significant factor of mishandled bags is delayed bags which accounts for 75%, with stolen bags only accounting for 5% (SITA, 2020), which shows that tracking for the user will only tell them that it is delayed. The 75% of delayed bags can also be broken down into factors. The most significant 3 are Transfer mishandling, Ticketing error/Bag switch/Security/Other and failure to load, which can be improved by a tracking system that would benefit both airport and user.

Due to this being the main problem with luggage, it has dominated the research on luggage at airports. With this being the obvious direction to go in, it is also the most predictable direction. This direction is the most treaded at the current moment and has the least potential as the final product would just be crammed with the most recent technology and would offer little when it comes to designing. Meaning the direction should be found through researching users and their relationship with luggage at the airport and how it could be improved.

User travel experience with luggage

Luggage transportations at the airport are primarily done via luggage wheels and trolleys with few other options. Luggage wheels are acceptable for short distances and one bag, but “Huge airports take specifically take considerable time and effort for the traveller to walk from the arrival gate to the departure gate, especially when carrying heavy luggage”(al Enezi, 2021). Trolleys are not the best solution either as they have some shortcomings as well, with “passengers often use luggage trolleys to carry their luggage to departure gates when they leave and also to a transportation hub when they arrive”(Wang, 2021).

Smart trolleys have the potential to do a wide variety of tasks for the user and the airport, with the most basic one being an “autonomous luggage trolley collection system”(Wang, 2021). The only current autonomous luggage pickup systems have been trialled away from users as luggage drop of zones where the “FLEET vehicle picked up the bag and dropped it off on the corresponding transfer belt” (Staff, 2019). FLEET is in the early stage, with the robot being more akin to a factory robot than a user-friendly one. There is an opinion in the literature of an automated luggage system. Still, most of the suggestions in the reports are small in scope when it comes to what they can do for the user.

Research

Surveys and Interviews

Phase one was to get an idea of which areas user experience as the airport to investigate. This was mostly done through the deployment of semi-structured interviews with a flight and a researcher who conducted their PHD on user experience at the airport. This was deliberately structured as to allow the focus on a small and manageable area of research instead of the whole spectrum of user experience at the airport. These interviews were also supported with two surveys conducted on flight attendants, ground crew, and recent flyers at the airport to focus research on specific areas of the airport.

Phase two was to identify critical aspects of luggage that the literature review could not fulfil due to it lacking or not existing in a helpful way. These surveys were conducted on frequent and recent flyers and were done through structured surveys, which allowed for the collection of data and information. Phase two also lead to the first series of concepts for the design.

Phase three focused on pinpointing what aspects of the product the users needed and did not want, which helped develop the concept interactions and round out the final concept when it came to what the users need. This was conducted through 2 surveys on recent and frequent flyers.

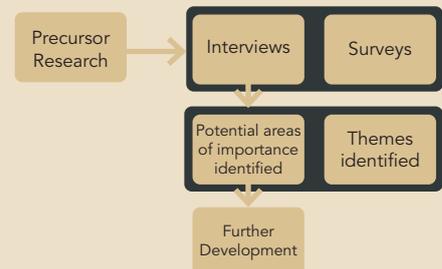
Phase 1

Interviews with:

Flight attendant
Person that did a PHD on user expeirnce at airport

Survey:

Flight attendant
Flyers



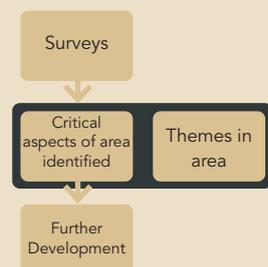
Phase 2

Interviews with:

Recent flyer

Survey:

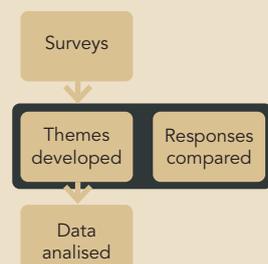
Frequent flyer
Recent flyer



Phase 3

Survey:

Frequent flyer
Recent flyer

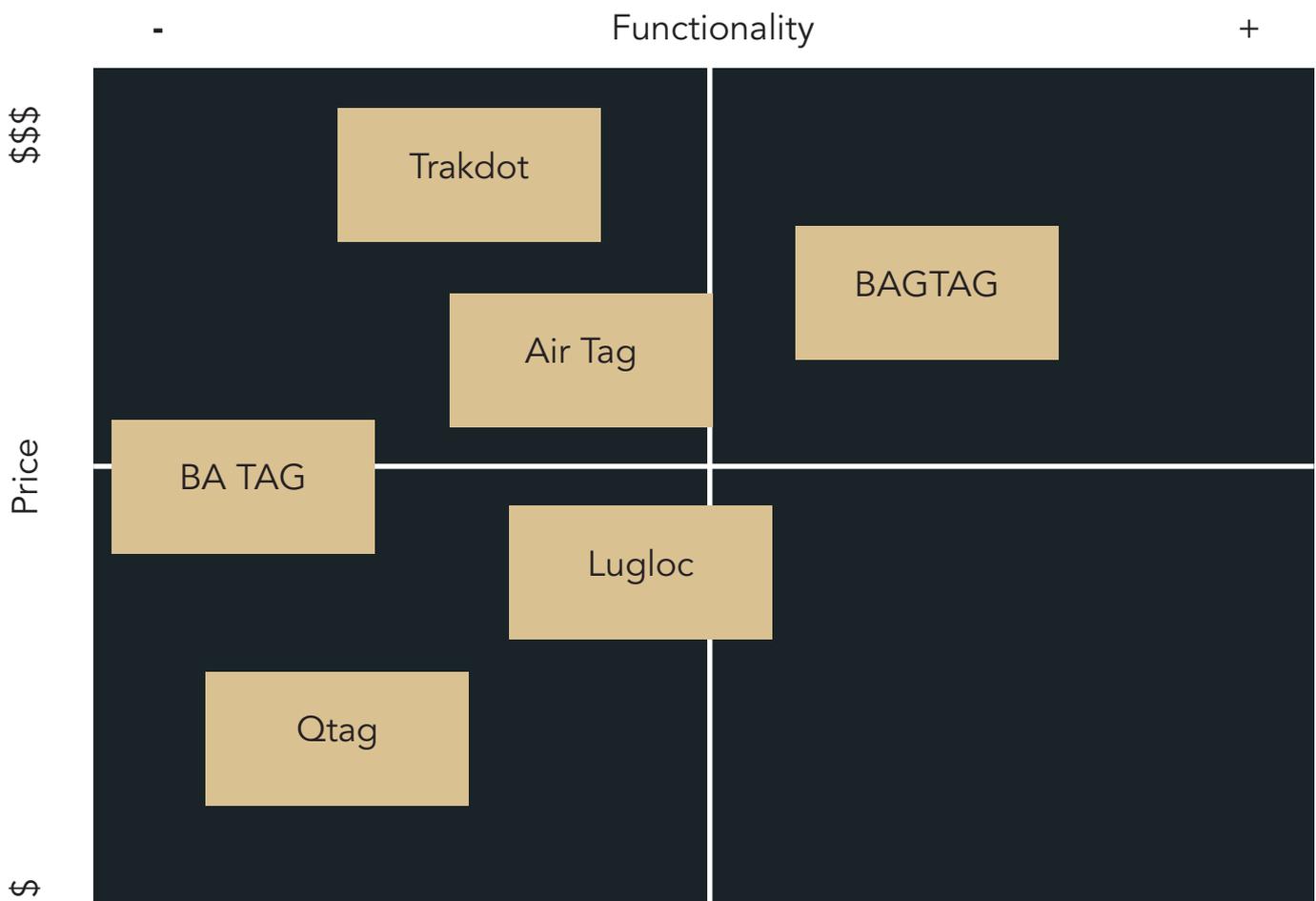


Luggage Tracking

The majority of Luggage tracking at airports is done through RFID (Radio-frequency identification), with the rest is done by simple barcodes, with both being done through the tags put on bags. This system is not perfect, with 5.6 bags out of 1,000 being mishandled (SITA, 2020), which does not seem to be many until it is put in the grand scheme of 4.5 billion people flying pre-Covid 2019. Once the total passengers, this small amount means 25.4 million bags are lost, which cost the airline industry 2.5 billion.

Many products have come to solve this problem for the airlines, with many of these products offering some new features to the user as to put the cost of the product on the user instead of airline. Many of these products fail due to not appealing to the user or airline, with the most successful, such as BAGTAG failing due to not getting enough airliners on board. Many of these trackers fail due to costing too much and offering too little shown in fig 2 to the user for it to be worth buying, with many now being dead.

Fig 2



Luggage Sizing

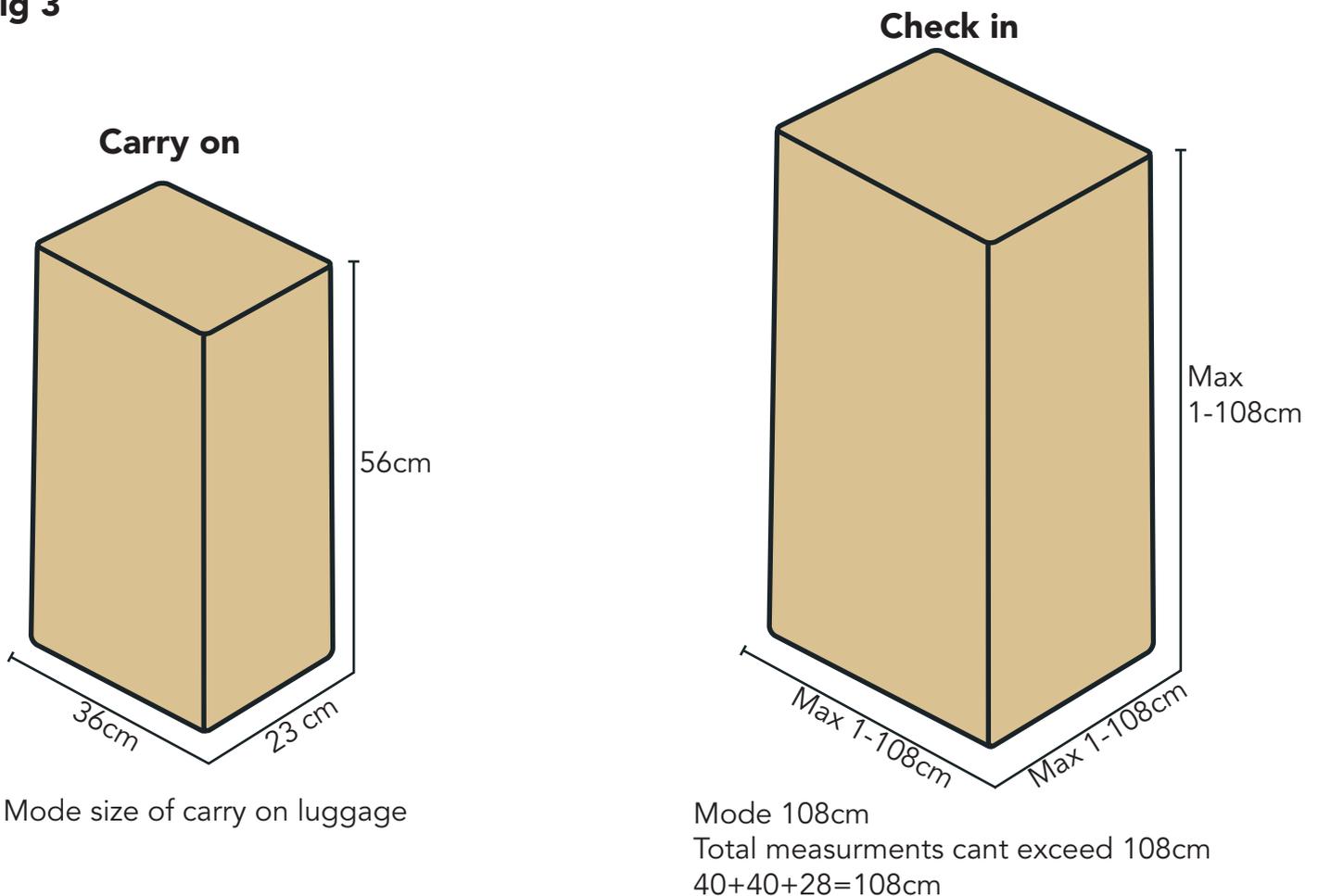
Airports are some of the most controlled and organised places in the world, with the key goals being efficiency and speed. There is no better example of this than the luggage that travels around the world with the user. Carry on luggage has the same story as the user, but check-in luggage goes through a series of events that make it a more travelled item than the bag's owner.

The system that carries luggage must take into account all the sizes, shapes and weights of all these different items, and during this process, the bag can become lost or get damaged. The items within the luggage can become crushed and reorganised, with items inside the luggage getting damaged.

There is a lot of literature and reports on lost luggage at airports and tracking it. However, there is a substantial absence of literature on the other topics on luggage, which has the core of this research to question other aspects of luggage.

Luggage comes in a wide variety of sizes and weights, with there being no consistent size, but luggage can be put into two main categories carry on and check-in. Check-in luggage must fit in an overhead storage area, and so most airlines only have a maximum size which was consistent among 20 airlines, with fig 5 showing the most common size. Check-in is vastly different, with it just being a big space in the plane where it is all chuck in. There was not a consistent size, but a maximum total size with fig 3 showing it and unlike carry on, there was a wide verity of maximum sizes with the mode being 158cm. Weight for check-in is just a mess that depends on the trip with no consistent sizing among the airlines.

Fig 3



Analysis & Findings

Interview and Surveys

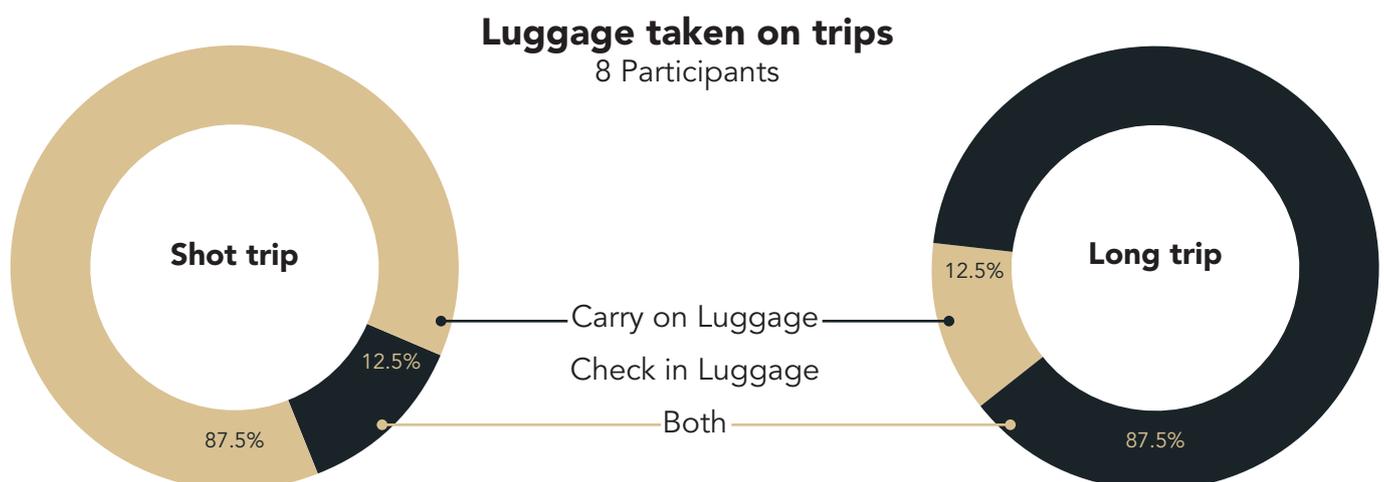
A small number of interviews were conducted early and mid-way through, and they were not useful and did not give the information needed to further the research. An early interview was conducted on a flight attendant, and the atmosphere was one that matched the industry's current situation, which is quite depressing. The mid-interview conducted on a frequent flyer was incredibly similar to the surveys conducted and took ten times as long as the surveys.

A tremendous amount of useful research came from surveys as the product intervention is focused on a wide group of users which allowed for a remarkable amount of information to come from the users. The analysis of the data was done through the revision of surveys and the finding of keywords and phrases about the issue of luggage. The use of surveys also allowed for the making of questions that would automatically make graphs and charts on the issue, which allowed for the quantification of the data to be done quickly and easily.

Survey Findings

The surveys aimed to investigate the user's needs and see their luggage experience at the airport. Through that, a varied amount of results came back on it, with a majority of them being expected with parts of the luggage braking which will be addressed, yet there was also new information on luggage size. When asked what size luggage the user takes when flying, they answered with sizes as expected, but some responses gave an intriguing answer which was not a size but a response of "Depends on how long the trip is". This opened a whole new way of looking at luggage as users see luggage in set sizes, and when they do not have the right size for the trip, they either buy a new bag for the occasion or take away necessary items.

Looking into this more, another survey was conducted that found most of the time, running out of space normally accurse when the user is returning home after buying souvenirs as they user normally packs their bag to the brink when going on a trip to only run out of space when returning and having to throw out objects, they deem not useful. The surveys alluded to luggage that adapts to the user needs when it comes to space and size, allowing them to pack the amount they need for the trip. So, the user could have luggage that could be for a day trip or a 2-week trip without having to buy another bag for the occasion or having to make sacrifices. It was also shown in surveys that the users only take carry on for short trips fig 4 and both for longer trips shown in fig 5 which shows if the user ever needs a more luggage space they could turn their carry on into check in luggage dependant on their needs. This would also stop the storage of multiple bulky bags in the cupboard for users, which benefits their needs.



Discussion

Looking through the literature on user experience at the airport and user experience with luggage at the airport, all directions seemed to be heading towards a device that tracks the user luggage and tells the user when to pick up their luggage, allowing them to do other activities while waiting for their luggage and to notify the user if anything happened to their luggage.

Early on, that was seamlessly the direction to go in, but there was not any real gap in the research to fill, and it was more of a rehash or development of an existing concept. With this realized mid-way, the research diverted more so to the user experience with the luggage itself, which had a massive void in the current literature and had more potential to explore and improve upon. The current form of bags has not changed much, with it more focused on the aesthetics and weight of the luggage instead of usability for the user.

Through researching and getting useful information through users, a new potential area was discovered where there is a research gap that being luggage that adapts to the user instead of the user adapting to the luggage. All bags come in a wide variety of sizes for specific lengths of trips. A user normally has a medium or large bag that forces them to either under pack for longer trips or overpack for short trips not to overfill or underfill their luggage for the trip. This opens a gap where there could be a new type of luggage that adapts to the user. This could also go to the organization of luggage as most luggage is an empty box with some fixed pockets and a strap that holds it down. There is potential in a type of luggage that adapts to the user's organization. Users surveyed talk about how their luggage would get scrambled and squashed during transit, and when living out of their bag on a trip, their bag would get disorganized.

Luggage tracking was deemed a dead concept due to a multitude of various versions of them existing already, but a thought kept coming up, and that is why aren't users using it already. The main one is BAGTAG which was introduced to the market in 2018, with others being introduced around the same time, yet it is not mainstream. The theories behind it not working could be that getting every airline on board could be time consuming, every airline wants their own version of it, Covid 19 has to stump their growth, and it could just be why pay for a device when the paper tag is free. There was a research gap in why it is not a widely used product already, which could be explored.

Design implications

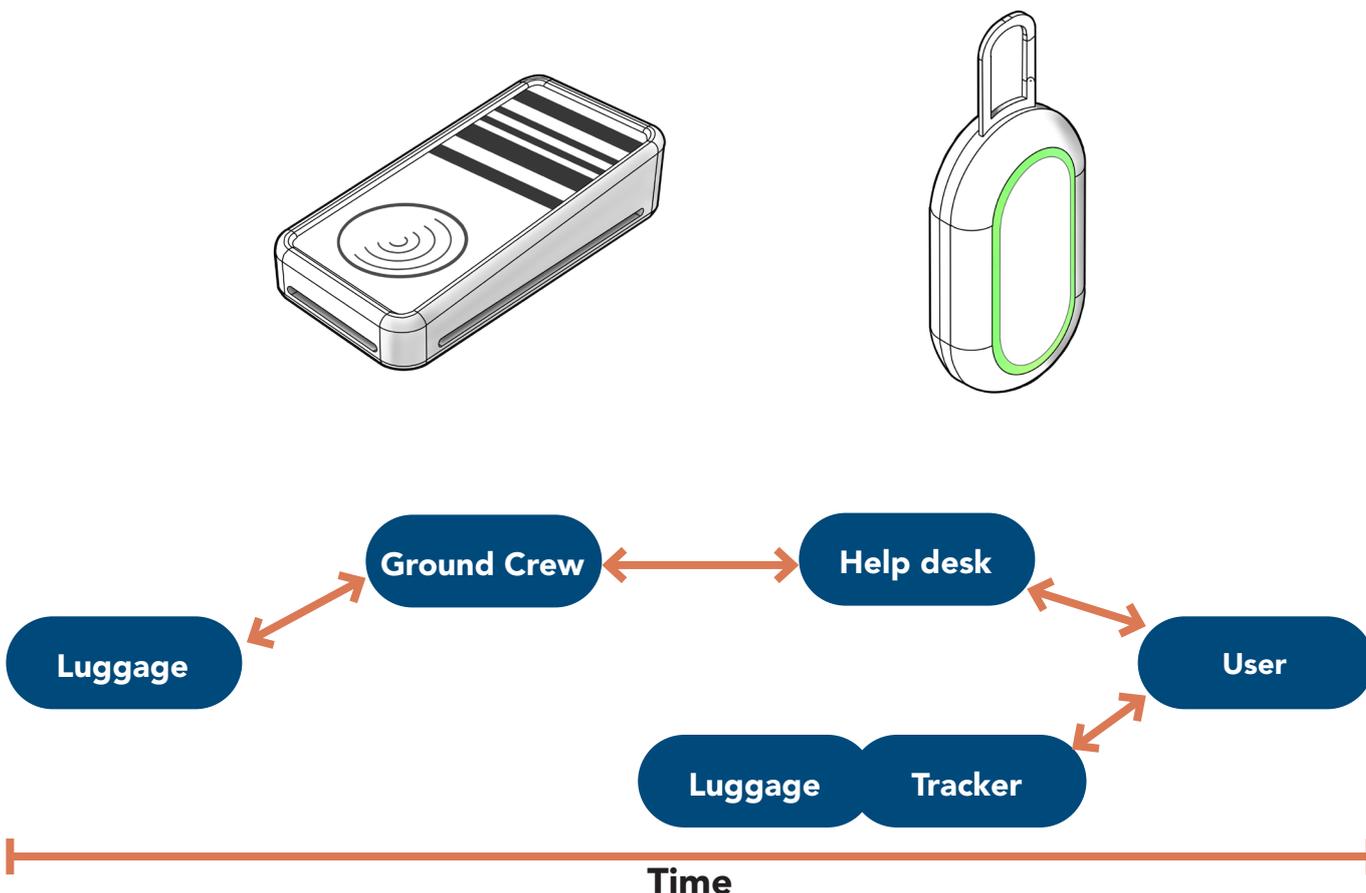
Luggage Tracking

Through research, two interesting possibilities have arisen: a device that tracks the user luggage and succeeds where other existing products fail or luggage that adapts to the user needs. Both offer an excellent opportunity to improve the user's experience at the airport.

The tracker on the luggage would have to achieve two major things to succeed: the airlines and users. For airlines, it would have to be adaptable to airlines corporate identity as airlines want to put their logo onto anything that's flying with them, so the device would most likely have to show which airlines it is flying with as to entice the airlines to get on board with it. Airlines would also take more interest if it solved the problem of lost luggage which cost the airline industry billions, so there are two major ways to get airlines on board.

The second and hardest factor is getting the user to buy the luggage tracker as no one wants to spend money on a free service unless it offers something more than the free option. This could be as simple as giving the user ease of mind on knowing where their luggage is always being tracked and telling the user when their bag is ready to be picked up so that they do not have to wait for it. That is the problem with the user aspect. The more features added, the more expensive it becomes, which means it needs to do more to entice users to buy it. It would undoubtedly be bought by frequent flyers, and that could be a significant target audience, but making a product that services every flyer would be more beneficial to both the user and the airline as the more it's bought, the more of a norm it would become making it cheaper for both the airline and user.

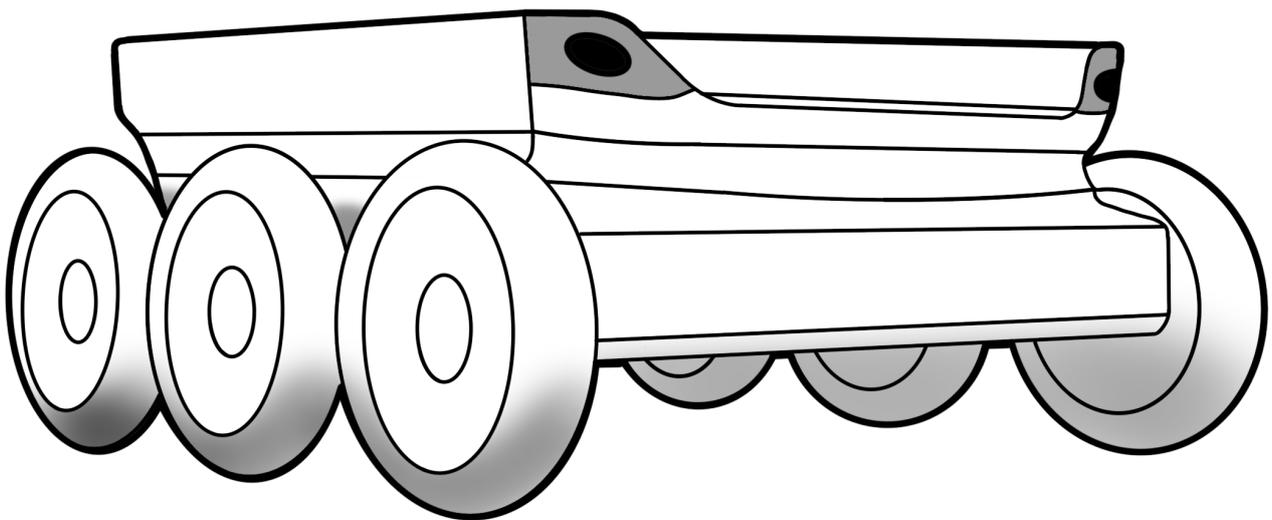
Luggage Tracking Concept



Luggage pick up system

There are concepts of a luggage pickup system at an airport, but they only do one task, looking at the literature and existing versions. This could be a limitation of robotic systems which aren't developed enough to be working around the user at an airport, or the fact the price doesn't equal the use. Though having a luggage system that picks up your luggage and takes it straight to a security check, then the plane would save the user a lot of time.

It could also help people with disabilities, the elderly and parents by themselves get their bags to the airport. It would replace existing trolleys and act more autonomous to the user, and looks after the luggage. A pre-tagging system would be needed to identify the luggage and tell the autonomous trolley robot who it belongs to and where it needs to go. That's the problem with the system; it needs other systems for it to work, which explains in the literature why it only does simple tasks such as going back to the trolley pick up area or sorting out luggage at the drop of zones.

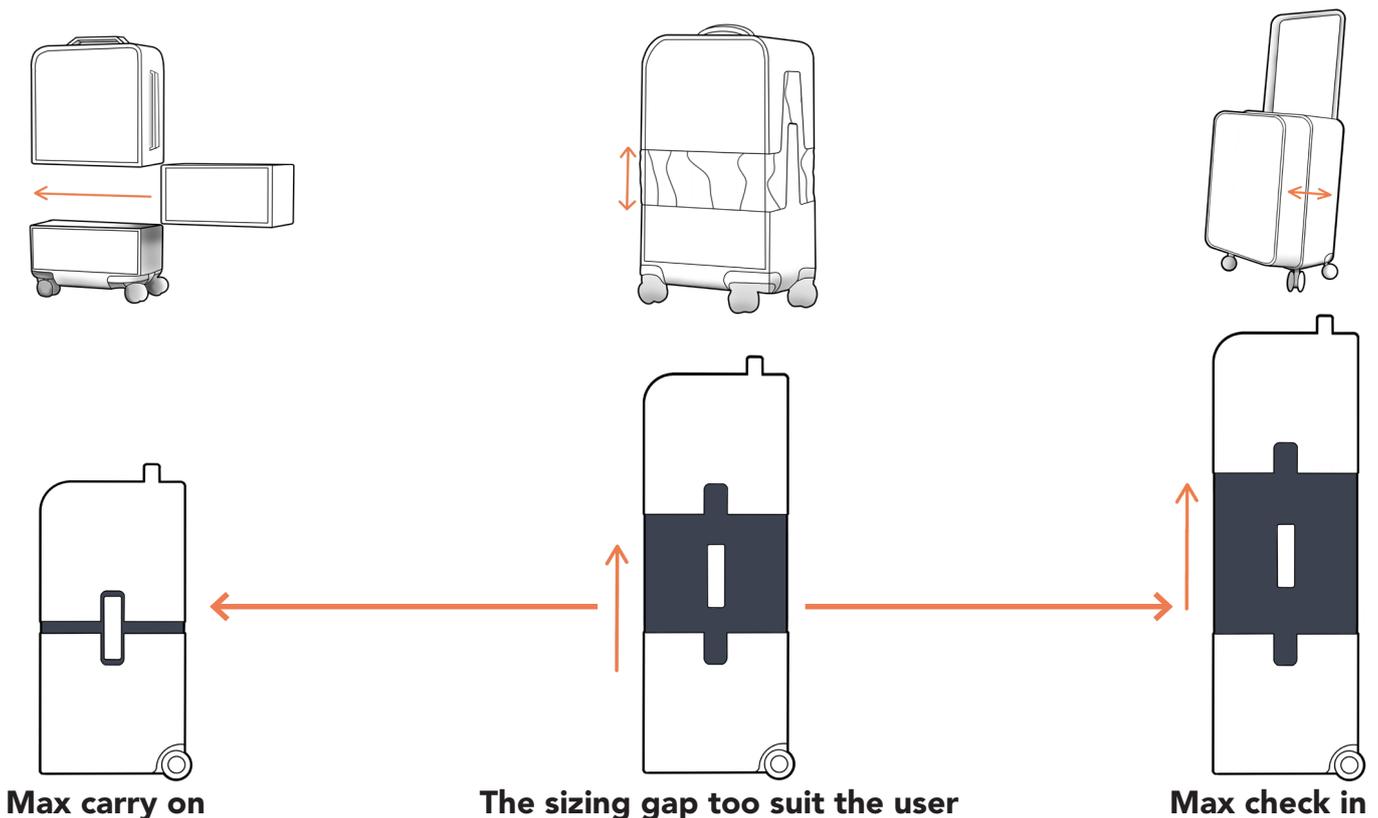
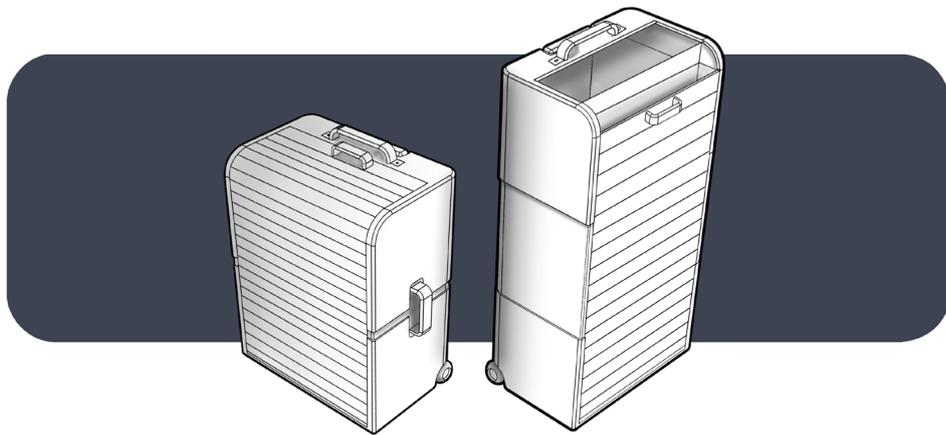


Expandable Luggage

When it comes to luggage that adapts to the user, there are two factors: luggage that adapts to users' storage needs. The other is an adaptive organization, which can change the bag organization for the user needs. For adaptive storage size, instead of the user getting different sizes of luggage for different trips length and occasions, the users get one that adapts to all trips lengths and occasions through it expanding and compressing when needed, which would help the user when travelling and not just for the airport but for all types of travelling. The luggage could be both a carry-on when needed, and a be check-in, which could also help if they need to bring more objects back from a trip.

The other major factor in adapting to the user needs is organizing the items within luggage as going through the airport scrambled their luggage, making it go everywhere, which also led to the luggage getting crushed by heavy items within their luggage. Keeping their luggage organized in the short term is a major factor. Keeping it organized in the long term allows the user to live out of their luggage for a short amount of time without the luggage organization falling into disarray.

Expandable Luggage Concept



Conclusion

Within the last years, the world was hit with Covid 19, which has affected the airline industry like nothing before, with the industry taking a massive hit that hasn't been seen in modern times. The only other times the industry as a whole had been affected so hard was after 9/11 and the GFC, with this event only being a blimp compared to the Covid 19 pandemic (IATA, 2020).

One of the most affected areas at the airport is the user's experience at the airport, which could be best described as bleak. There isn't one solution to this problem, and it is going to take a multitude of solutions to solve this new problem. That's why this report is looking at one aspect of the user's experience at the airport, which is luggage.

In summary, this report focuses on some aspects of luggage that can be changed to improve the user's experience at the airport. The literature of the report is heavily focused on the user's opinion on time and how luggage can help with it through new technology and devices, which can give the user more info on what's happening with their luggage. With this info on their luggage, they can do other tasks while waiting for their luggage or see if anything happened to their luggage.

The literature on luggage is dominated on this idea, and through user research, a gap was discovered on how luggage could adapt to the user instead which has just as much potential but doesn't have all the arrows pointing at meaning their more room to explore with allowing it to be more fruitful. Even the smallest thing, such as improving the user's experience at the airport through having luggage that adapts to them, can improve the gloomy outlook at the airport.

References

- al Enezi, H. F. (2021, June). Design of a Drivable Airport Luggage Trolley. IEEE. <https://ieeexplore-ieee-org.ezp01.library.qut.edu.au/document/9461363/authors#authors>
- Australian government department of transport. (2021, May). International airline activity. Bureau of Infrastructure and Transport Research Economics. <https://www.bitre.gov.au/statistics/aviation/international>
- Australian government department transport. (2021, June). International Airline Activity. Australian government. https://www.bitre.gov.au/publications/ongoing/international_airline_activity-monthly_publications
- CIICS. (2016, March). Towards smart wearable real-time airport luggage tracking (No. 15956653). IEEE. <https://doi.org/10.1109/ICCSII.2016.7462422>
- Gaywood, O. (2020, January 28). Carry-on luggage: size and weight restrictions for international flights. Skyscanner Australia. <https://www.skyscanner.com.au/news/airlines/carry-on-luggage-size-and-weight-restrictions-for-international-flights>
- IATA. (2020, November). IATA's Annual Review. International Air Transport Association. <https://www.iata.org/en/publications/annual-review/>
- International journal of reasearch. (2014, October). RFID-BASED BRACELET FOR AIRPORT LUGGAGE SYSTEM. <https://ieeexplore.ieee.org/abstract/document/6498232>
- Krall, B. (2015, August 25). What we mean when we talk about airport user experience - UX Australia. UX Australia. <https://uxaustralia.com.au/conferences/uxaustralia-2015/presentation/airport-user-experience/>
- Laris, M. (2020, April 20). Scientists know ways to help stop viruses from spreading on airplanes. They're too late for this pandemic. Washington Post. https://www.washingtonpost.com/local/trafficandcommuting/scientists-think-they-know-ways-to-combat-viruses-on-airplanes-theyre-too-late-for-this-pandemic/2020/04/20/83279318-76ab-11ea-87da-77a8136c1a6d_story.html
- Meng, H. (2019, May). Socially Compliant Path Planning for Robotic Autonomous Luggage Trolley Collection at Airports. MDPI. <https://www.mdpi.com/1424-8220/19/12/2759>
- Miller, A. (2021, April 27). 2021 Checked Luggage Size Chart and Allowances for 60+ Airlines [Dimensions, Sizes, and More]. UpgradedPoints.Com. <https://upgradedpoints.com/travel/airlines/checked-luggage-size-chart-allowances/>
- Progress in Informatics and Computing (PIC). (2017, June). A smart system to minimize mishandled luggage at airports. IEEE Xplore. <https://ieeexplore-ieee-org.ezp01.library.qut.edu.au/document/7949485>
- Salman, A. (2021, August). Aircraft Passenger Baggage Handling System with RFID Technology (10.1109/ISESD53023.2021.9501689). IEEE. <https://ieeexplore-ieee-org.ezp01.library.qut.edu.au/document/9501689>

SITA. (2020). Baggage IT Insights 2020. <https://www.sita.aero/resources/surveys-reports/baggage-it-insights-2020/>

Staff, R. (2019, June 21). Dallas Fort Worth Airport Rolls Out Mobile Baggage Robots. Robotics Business Review. <https://www.roboticsbusinessreview.com/news/dallas-fort-worth-airport-rolls-out-mobile-baggage-robots/>

Stone, A. (2012, August 18). Why Waiting in Line Is Torture. The New York Times. <https://www.nytimes.com/2012/08/19/opinion/sunday/why-waiting-in-line-is-torture.html>

Tuchen, S. (2020, August). Airport user experience unpacked: Conceptualizing its potential in the face of COVID-19 (No. 101919). ISSN. <https://doi.org/10.1016/j.jairtraman.2020.101919>

University of Petroleum and Energy StudiesDehradunIndia. (2016). Design and Optimization of Luggage Tracking System on Airport. University of Petroleum and Energy Studies. https://link.springer.com/chapter/10.1007/978-981-10-1708-7_97

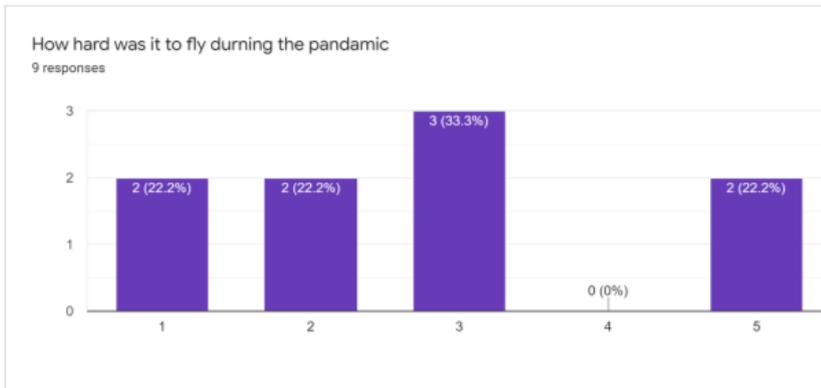
Vox. (2020, June 17). Empty middle seats on planes won't stop the coronavirus [Video]. YouTube. https://www.youtube.com/watch?v=9Em0FSsl_VU&t=3s

Wang, J. (2021, February). Path Planning for Nonholonomic Multiple Mobile Robot System with Applications to Robotic Autonomous Luggage Trolley Collection at Airports. IEEE. <https://ieeexplore-ieee-org.ezp01.library.qut.edu.au/document/9341403>

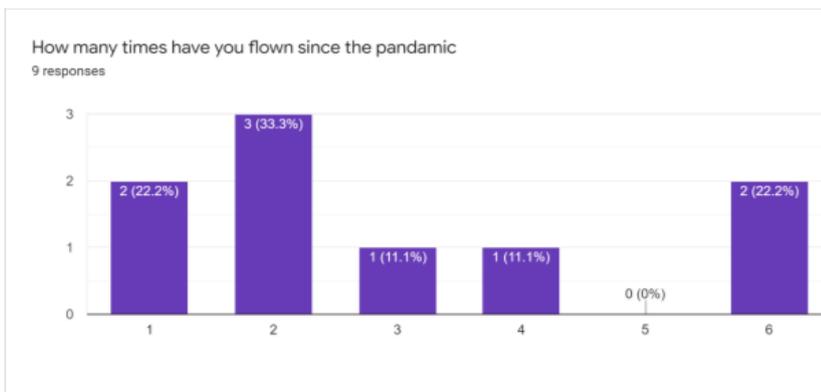
Appendices

Round 1 flyers

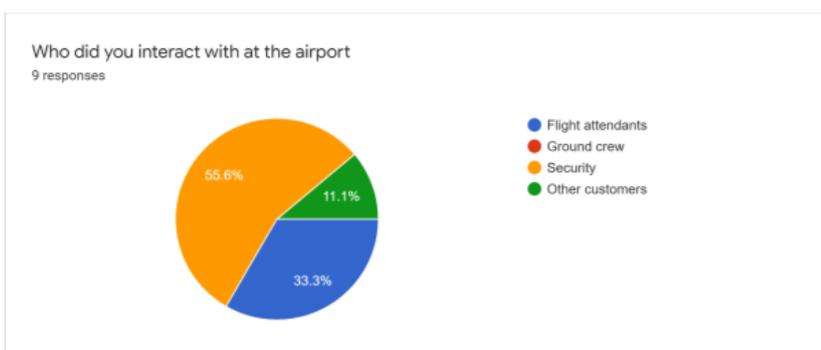
Q1: How hard was it to fly during the pandemic



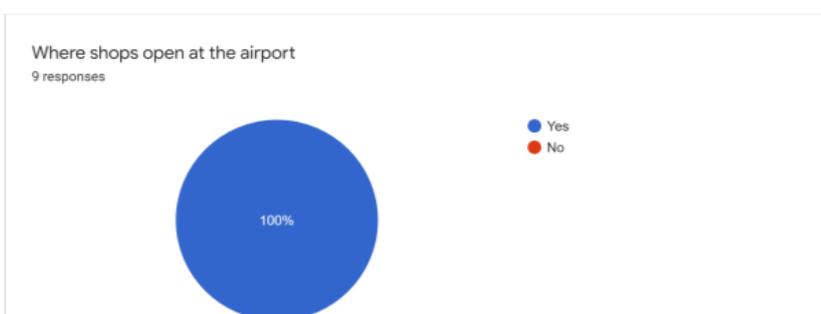
Q2: How many times have you flown since the pandemic



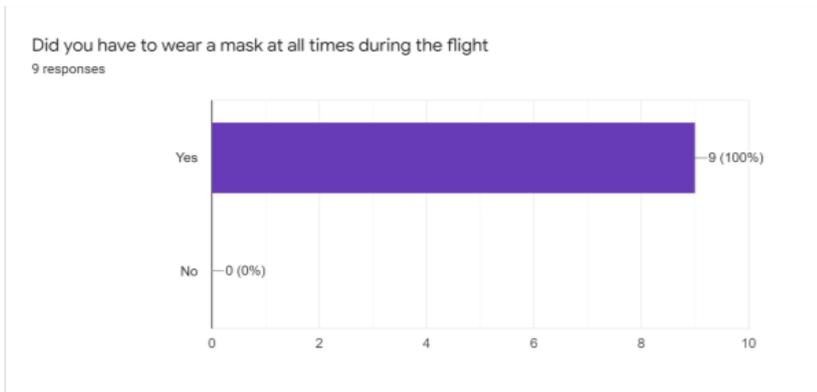
Q3: Who did you interact with at the airport



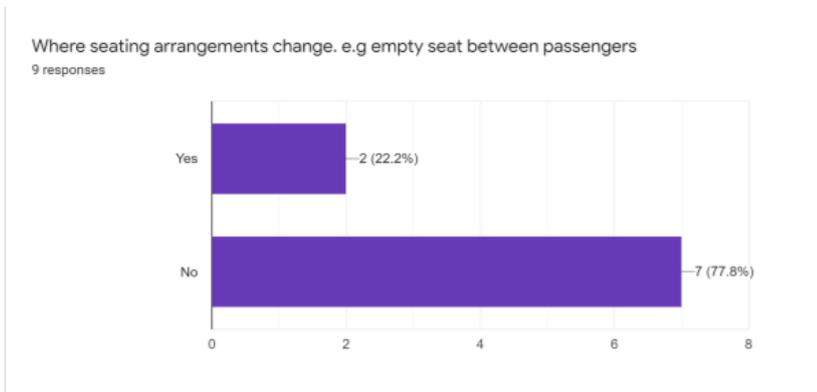
Q4: Where shops open at the airport



Q5: Did you have to wear a mask at all times during the flight



Q6: Where seating arrangements change. e.g empty seat between passengers



Q7: Worst aspect of flying before pandemic

Responses

Lack of hygiene and filthy seats

Crying babies

Tight spaces

To much interaction

The amount of people in the airport (fully packed due to everyone flying everywhere). Massive lines

Delays

Expensive food on the plane.

The seating, as a bigger person I am always cramped especially with someone next to me

Space for knees

Q8: Worst aspect of flying during pandemic

Responses

Wearing a mask for hours

Flights being cancelled

Tight spaces

No interaction

The chance of flights being canceled. Filling out forms before flight. Wearing mask during the whole flight.

Low availability of flights (limited seats)

Worst aspect would be the amount of paper work to fill in prior to going to each state.

The risk of getting sick, everyone in a small airlocked area from all different places seems like a big risk

Masks

Q9: Worst aspect of airport before Covid 19

Responses

Overcrowding

Wait times

Lack of chairs to lie down

Very Buys

The lines

Baggage drop off queues

Expensive parking. Which impacts on having family/family coming in.

Security check, always takes so long and I feel unnecessary nervous

Security

Q10: Worst aspect of airport during Covid 19

Responses

Lack of staff due to companies laying off staff

Wait times

Lack of chairs to lie down

Time waiting in line while people could be sick around you

The amount of security

Social distancing

Constantly changing the gate number and having to follow that up or flight cancellations due to COVID-19.

Having so many people from different areas all in the one place, big risk of spreading the virus

Boarding pass collection and prechecks from federal police that I was allowed to leave

Q11: Was there a difference in safety and security compared to pre-pandemic and if so how

Responses

No

Higher level of security

Not apart from the masks and hand sanitizer

Just wider spacings

yes, a lot of forms to fill out prior to leaving. also paper forms that needed to be filled out while on the plane

No difference

It's about the same but the only difference is the questions the security ask you about where you have been/any symptoms ect.

Not that I saw, there was just more signage about having to wear masks and about COVID symptoms but security was the same

There were three separate checks confirming if I had exemption to leave Australia

Q12: Worst aspect of security before pandemic

Responses

Clogged lines and not enough lines open

Was Adequate

Having to take everything out

People in your face

massive focus on luggage breaches and drug testing

Queues

Not really a worst aspect but they are not strict enough and it is very easy to get through the airport.

The wait times and always risk of leaving the wrong thing in my bags

Length and unpacking electronics

Q13: Worst aspect of security during pandemic

Responses

Socially distancing in the line creates a far bigger line than before

Containment leaks

Same

Security was good

less of a focus on drug testing and increase in symptoms for covid19

None

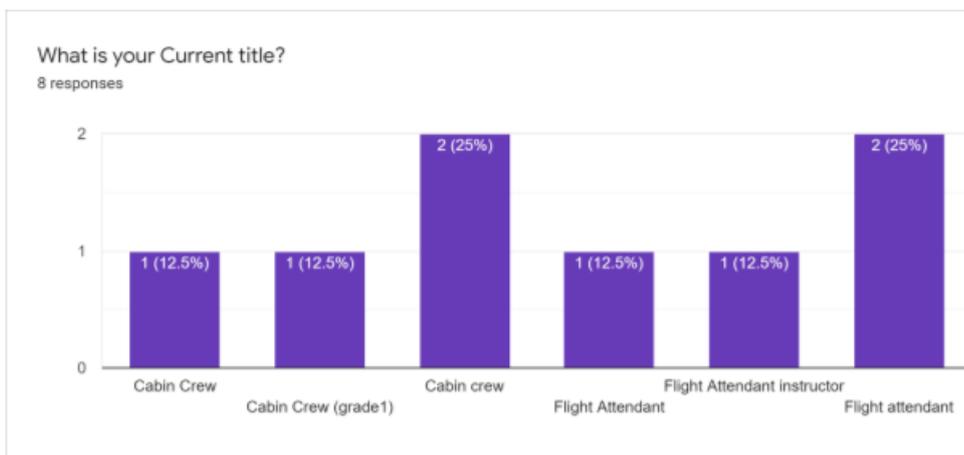
The amount of questions they ask about COVID-19.

Didn't feel like it had changed significantly

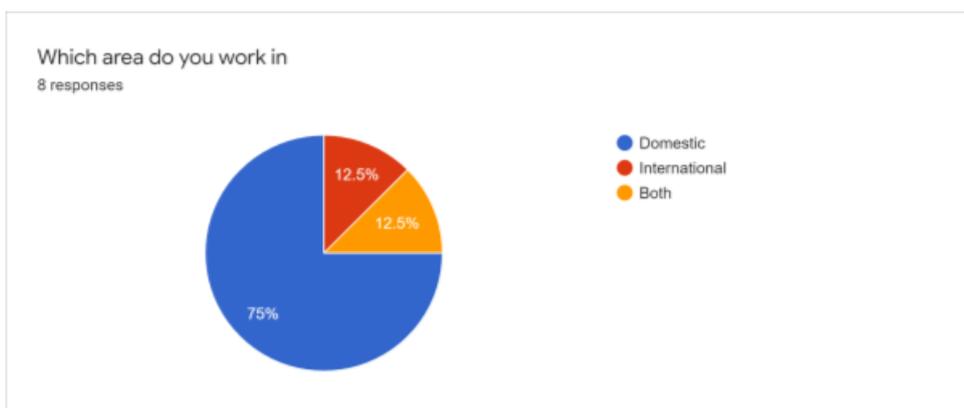
1.5 hour queue through exemption check queue, before even getting to security or receiving boarding pass.

Round 1 flight attendants

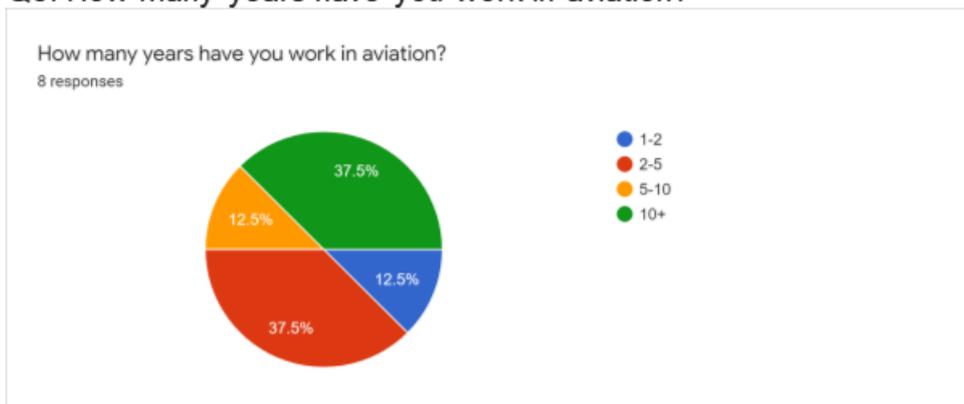
Q1: What is your Current title?



Q2: Which area do you work in



Q3: How many years have you work in aviation?

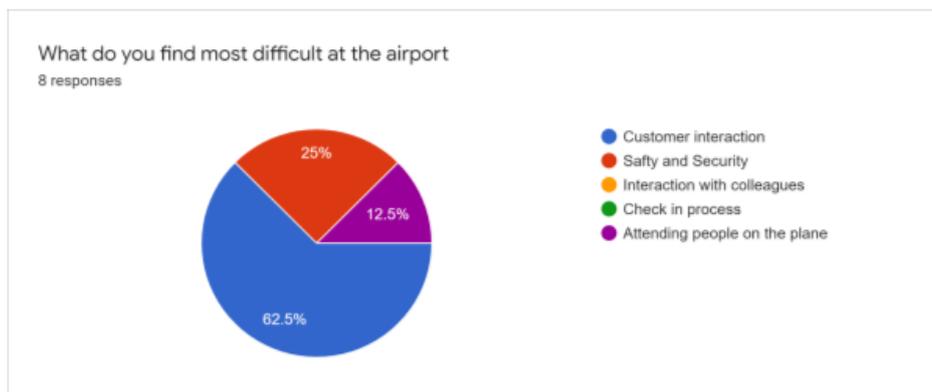


Q4: When you were flying, how did Covid 19 change your experience at the airport

Responses

- Massively. There is a big presence for hygiene. Sometimes it made the role hard such if there was an intoxic person and they had a mask on. We could not smell it on their breath and there would be an issue arisen on board in the air.
- Flying internationally during Covid changed everything about aviation. Contact with other staff was reduced to bare-minimum + time spent in the terminal was reduced too.
- Closed shops (in the terminal). Little to no passengers on flights (making work less busy). Mandatory masks 24/7. Some enforcement of mask wearing. Cancelled flights/duties
- Had to ensure I had my mask
- Masks became mandatory, all businesses were closed so couldn't buy food, health officials questioning us whenever we got off our flights, better parking options for staff which is good, very distant with passengers (they would make an effort to stand or walk away from us)
- Was made redundant twice. When I got a flying job again, I was flying alot less, and spending less time at the airport
- Far less people. Some airports seemed deserted in a way. A lot of added check points in regards to health screening eg PCR test collection, temperature checks on top of the usual check points at the airport

Q5: What do you find most difficult at the airport



Q6: How has covid change the environment at the airport

Responses

- Other than there not being a presence at the airport. I think it made people more edgy amd less interactive.
- Check-in process reduced to prevent contact with ground staff. Arrival back into Australia also became a tedious process, with police border checks etc.
- People are a lot more weary of what they touch, eat drink. Decreasing the amount of passengers that want food & drink on flights.
- Quiet
- Feels very empty and sad when walking through the terminal. Everyone is social distancing
- Far less people. Very deserted
- Less leisurely and more military. There's a lot of police and sometimes army/military personnel at the airports, departure and arrival. There's no more excitement of being at the airport because most people are traveling for work or emergency purposes. Lots of shops within the airports are also still closed so you're limited to the amount of shopping even for food and snacks, it's very empty
- Quiet, eerie

- Quiet, eerie

Q7: How has your interaction with customers change

Responses

- It's hard to maintain a professional relationship and a safe one with passengers.
- On high-risk flights to China, Philippines, Indonesia etc, we were only permitted to be in the cabin for a maximum of 15 minutes, while wearing full PPE, including hazmat suits, face shields etc.
- The mandatory wearing of masks has challenged my communication with passengers. Majority of the time I cannot hear what passengers are saying through them.
- Had to understand people with face masks on
- Interaction with customers is different, usually there's more opportunities for chatting and getting to know our customers but now it's more ideal to keep a distance. Cant show good body language to passengers (smiling)
- Covid has taken alot of the fun away. The environment isn't as relaxed. You're constantly now trying to get people to do the right thing
- There's a less personal interaction, you must keep your distance. Unable to be more hands on helpful for those who need assistance due to social distancing and the paranoia of contacting germs. It's harder to communicate with the masks, especially if there's a language barrier. We have to be more authoritative and assertive to make sure everyone is following the covid rules of wearing masks and social distancing, people don't like being told what to do.

Q8: Has safety and security change, and in what way has it

Responses

- Not really.
- Safety/security increased as well as hygiene onboard
- Not necessarily. Possibly just more police patrolling the airports and enforcing mask wearing or asking people where they are going (based on the border restrictions at that destination). And border declarations has added an extra lengthy step at most destinations.
- I don't think it has
- I've seen changes mostly with mask mandating. I feel abit unsafe at work if someone refuses to wear a mask and other passengers get frustrated with us for not forcing them to wear a mask. It became a common and frustrating problem at work
- Yes. Health safety has increased massively
- I don't think the level of safety and security has changed since covid. If anything it's increased as there's a higher police presence and in some places military. I think it's made people more aware and switched on. Due to the less amount of people traveling the safety and security should be better.

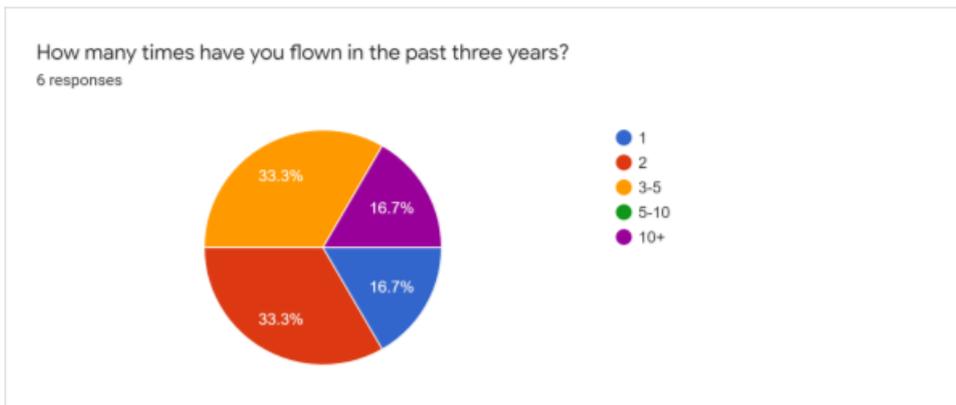
Q9: How has sanitation change

Responses

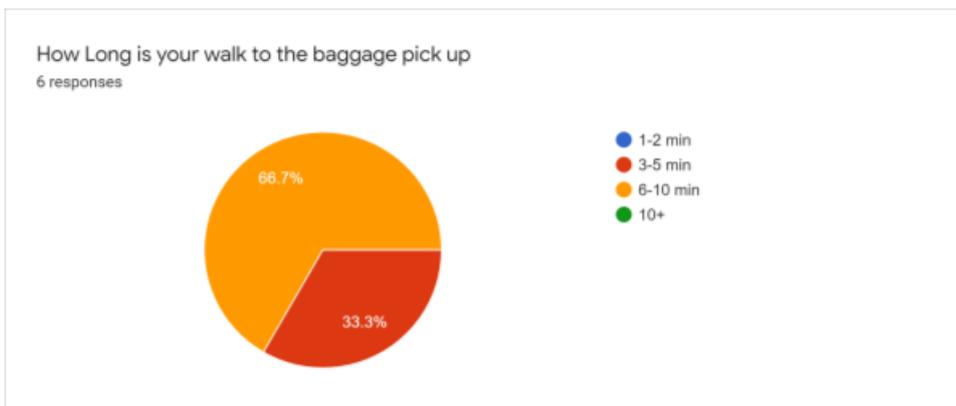
- Nurses will check some pax on arrival. Hygienic stations and everything is automatic now like the toilets and hand wash
- 1000% increase onboard, with hand sanitizer, masks etc
- Masks, wipes and sanitiser are handed out on request which previously wasn't available
- More process for us to follow
- Not much really. Just more hand sanitising stations and mask wearing but there is no one going into extreme measures to make sure everyone is sanitised or wearing extra PPE
- Yes. Constantly wearing face masks. Cleaning constantly. Sanitising constantly
- There's probably been a 90% increase of hand sanitiser stations added everywhere which is amazing. People are probably more thorough now and are way more cautious of things they touch and sanitising after.

Round 2 frequent and recent flyers

Q1: How many times have you flown in the past three years?



Q2: How Long is your walk to the baggage pick up

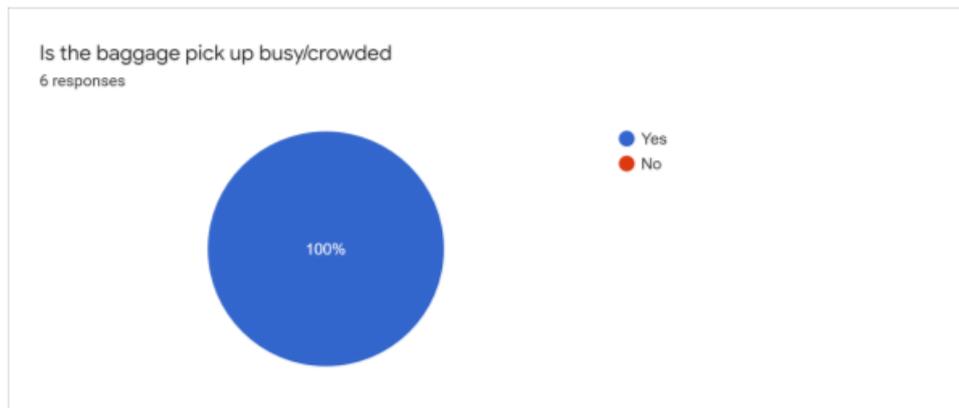


Q3: When picking up your bag, what do you find most challenging/annoying?

Responses

- Navigating through the crowd of people also waiting for their bags
- Not clearly marked signage, directions
- Going through the crowd to pick up bag
- People crowding around the conveyor belt and not allowing you to get your bags easily.
- Finding it quickly/ waiting for it
- ALL THE BAGS LOOK THE SAME!

Q4: Is the baggage pick up busy/crowded



Q5: How long would you wait for your bag until seeking help?



Q6: When waiting for your luggage at the carousel, what do you do?

Responses

- Stand and watch
- People watch. Grab a coffee. Look at my phone
- Look at phone till bag comes
- On my phone. Looking at others to ensure my bag isn't taken.
- Wait play on phone talk to someone
- Continuedly go to pick up the wrong bag thinking it's mine.

Q7: If you knew it would take a while to pick up your luggage, what would you do to pass the time.

Responses

- Get something to eat
- Grab a coffee
- Go get a coffee
- Shop, have a coffee or play on my phone.
- Eat
- Be on my phone, grab coffee, play eye spy

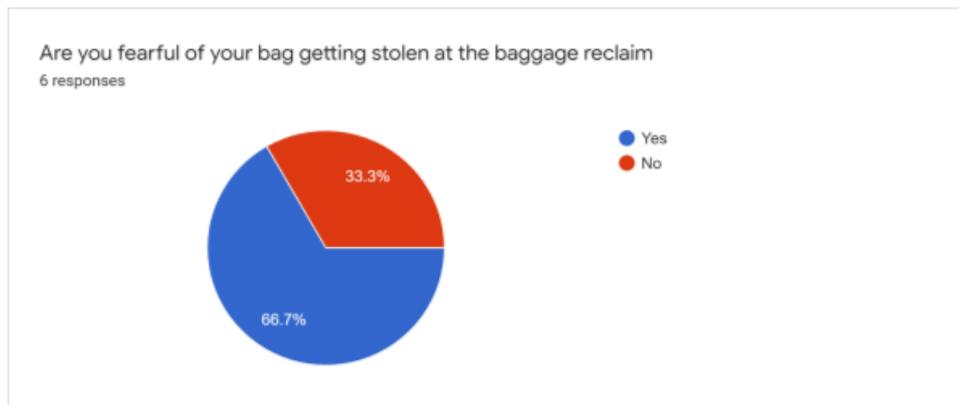
Q8: What would you do if your luggage doesn't appear?

Responses

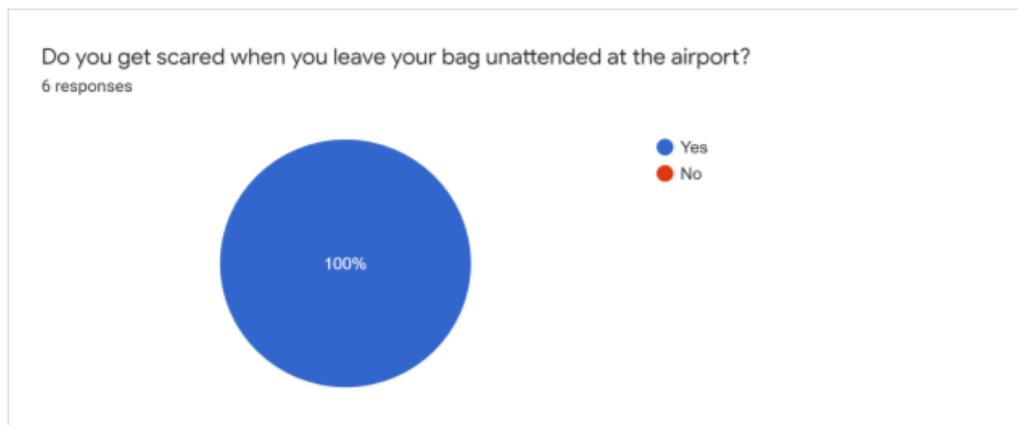
- Seek assistance from one of the staff members present
- Frustrated. Ask ground services
- Seek help at desk
- Go to the service desk.
- go to nearest desk
- Talk to an attendant

Q9: Are you fearful of your bag getting stolen at the baggage reclaim

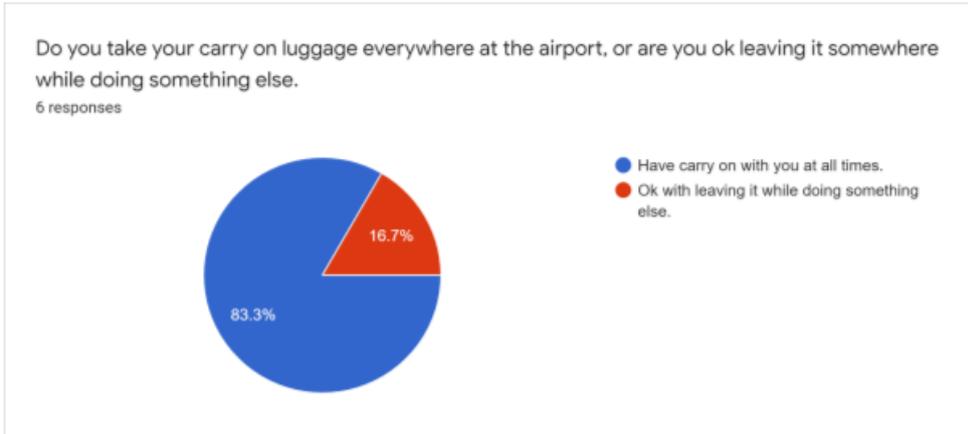
Responses



Q10: Do you get scared when you leave your bag unattended at the airport?

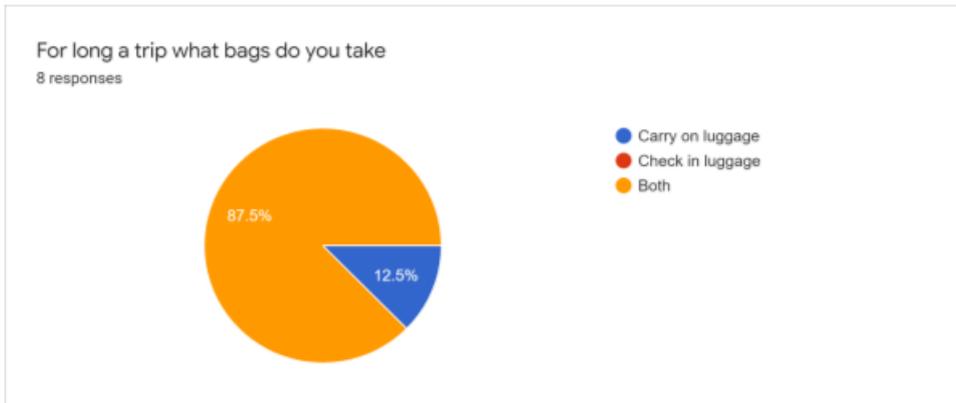


Q11: Do you take your carry-on luggage everywhere at the airport, or are you ok leaving it somewhere while doing something else.

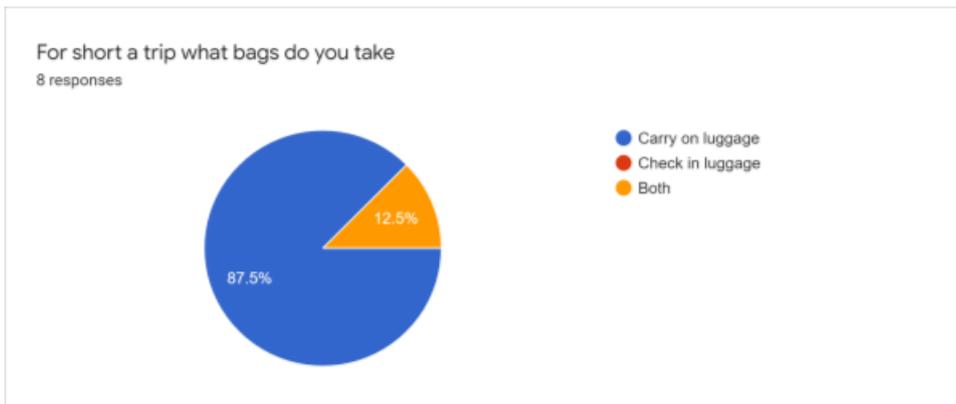


Round 3 frequent and recent flyers

Q1: For long a trip what bags do you take



Q:2 For short a trip what bags do you take



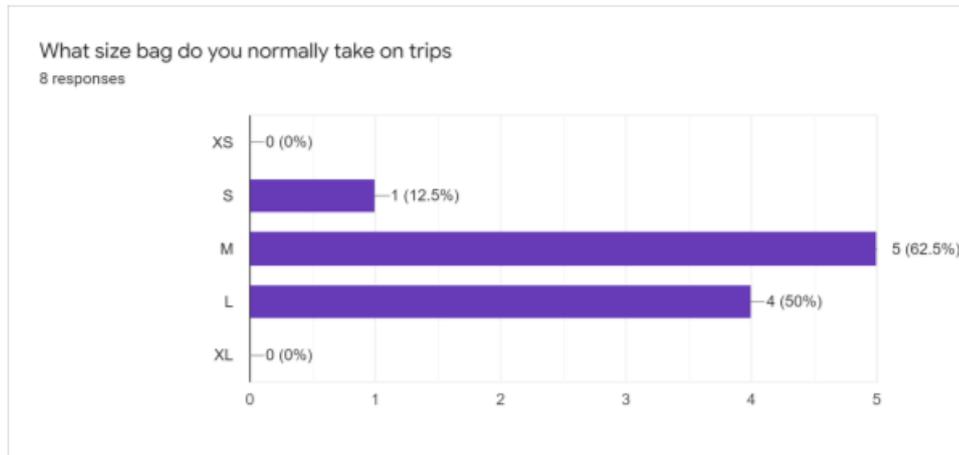
Q3: When going on a trip what size bag do you take

Responses

- Depends on how long the trip is.
- Medium size bag
- Medium size duffel bag
- Large
- 20kg weight
- Depends on length of trip

Q4: What size bag do you normally take on trips

Responses



Q5: Pre-trip what do you do if you don't have enough space in your bag.

Responses

- Remove unnecessary items.
- **Get a bigger bag**
- Cull clothes based on how reusable they are
- **Repack bag and take out unwanted items**
- Unfortunately unpack some items
- Carry on
- Take out stuff
- **Add another bag or try and cut down on packed items**

Q6: When coming back from a trip, what do you do if you don't have enough space in your bag

- **Check for more luggage options. Change my outfit to something bulky**
- **I would go out and buy a second bag for carry on or check in**
- Throw out older stuff I don't use much
- **Buy another bag**
- Usually post it or pay for another bag which means spending more money on additional baggage
- Carry on
- **Throw away the cheap stuff or pack carry on to the brim**
- **Add a bag**

Q7: What aspects or features do you desire the most in a travel bag.

Responses

- Protective, stylish, flexible and wheels.
- Adjustable space
- Easy access to devices when it's shoved in overhead etc, heaps of exterior pockets, keeps it's shape after having been used for a while, typically black or dark grey
- How heavy it is and can it expand
- I guess wheels, easy to pull. Can i put on of my daughters on top of it to save me carrying them
- Compartments
- Flexible, quick access, and expandable
- Low weight, design & adaptability

Q8: What are the most valuable items you take when flying

Responses

- Phone and passport
- Passport
- MacBook, iPad Pro, iPhone (I'm exceptionally rich)
- Jewellery iPad
- Laptop, ipad
- MacBook
- Electronics and passport
- Watches & jewellery

Q9: What items do you want quick access to when to when flying.

- Phone, toiletries and entertainment
- Passport, pens and phone
- Need to be able to reach my devices without having to rummage through the rest of my stuff
- Toiletries, iPad , travel documents
- Ipad and wallet
- MacBook and iPhone
- Electronics and passport
- Travel documents, mobile & chargers

Round 3 frequent and recent flyers

What is the first thing to break on your luggage

Responses

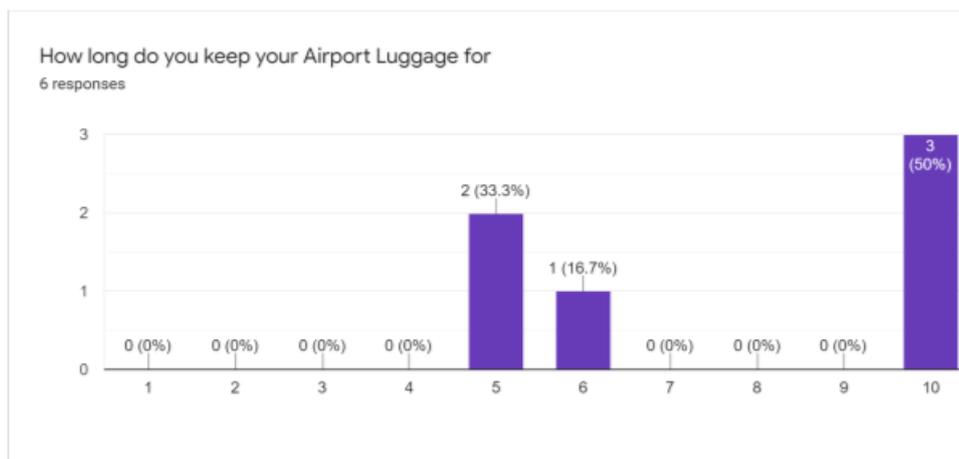
- **Wheels**
- **Handle**, but rarely broken (had good quality bag)
- **Handle** not retracting.
- **Zipper** and wheels
- **Wheels**
- Plastic suitcases are easy to get damage on the corners
- **Wheels**, **zipper**, and **handles**
- **Handle** and **wheels**

What do you currently dislike about Airport luggage

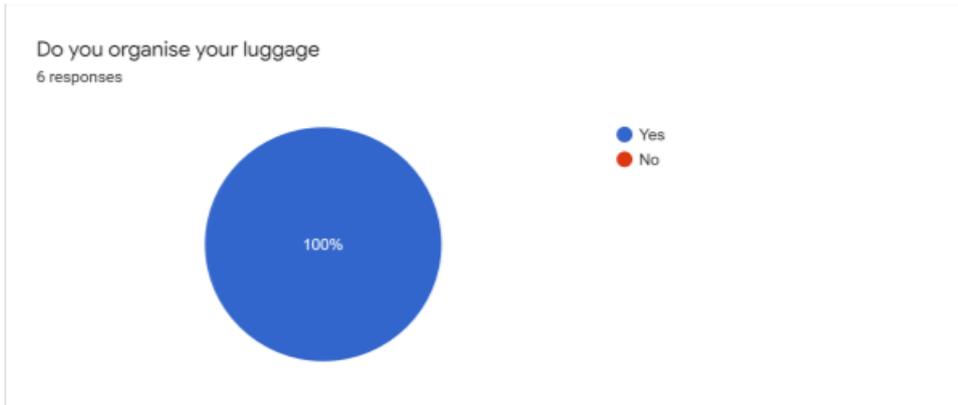
Responses

- What's going to be damaged on the bag
- When people take large carry-on baggage
- **Size**. There is not allot of option for making the **bag bigger or smaller**.
- Having **5 different bags for it**
- Can be awkward to move around
- the wait

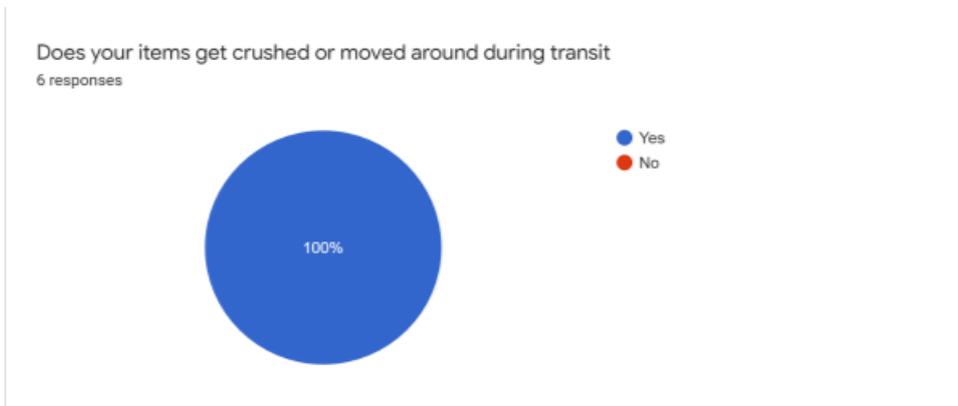
How long do you keep your Airport Luggage for



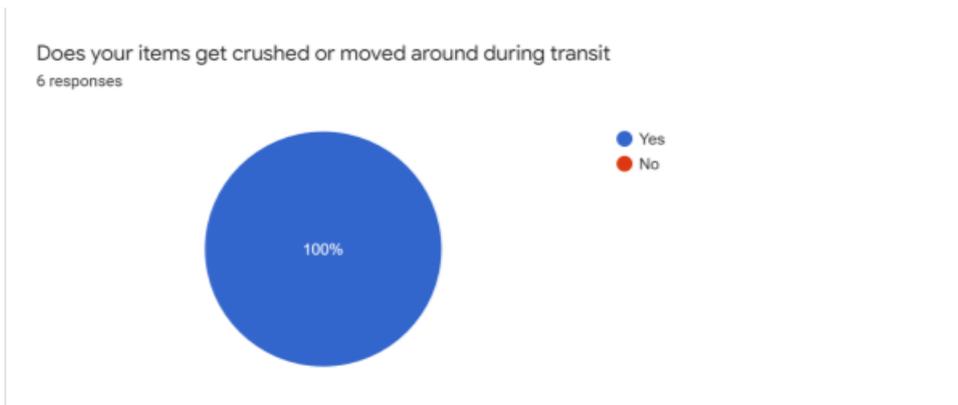
Do you organise your luggage



Would you want sections to separate and organise your luggage



Does your items get crushed or moved around during transit



Do you pack extra shoes when flying

