



SMARTER TRAVEL PROCESS BOOK

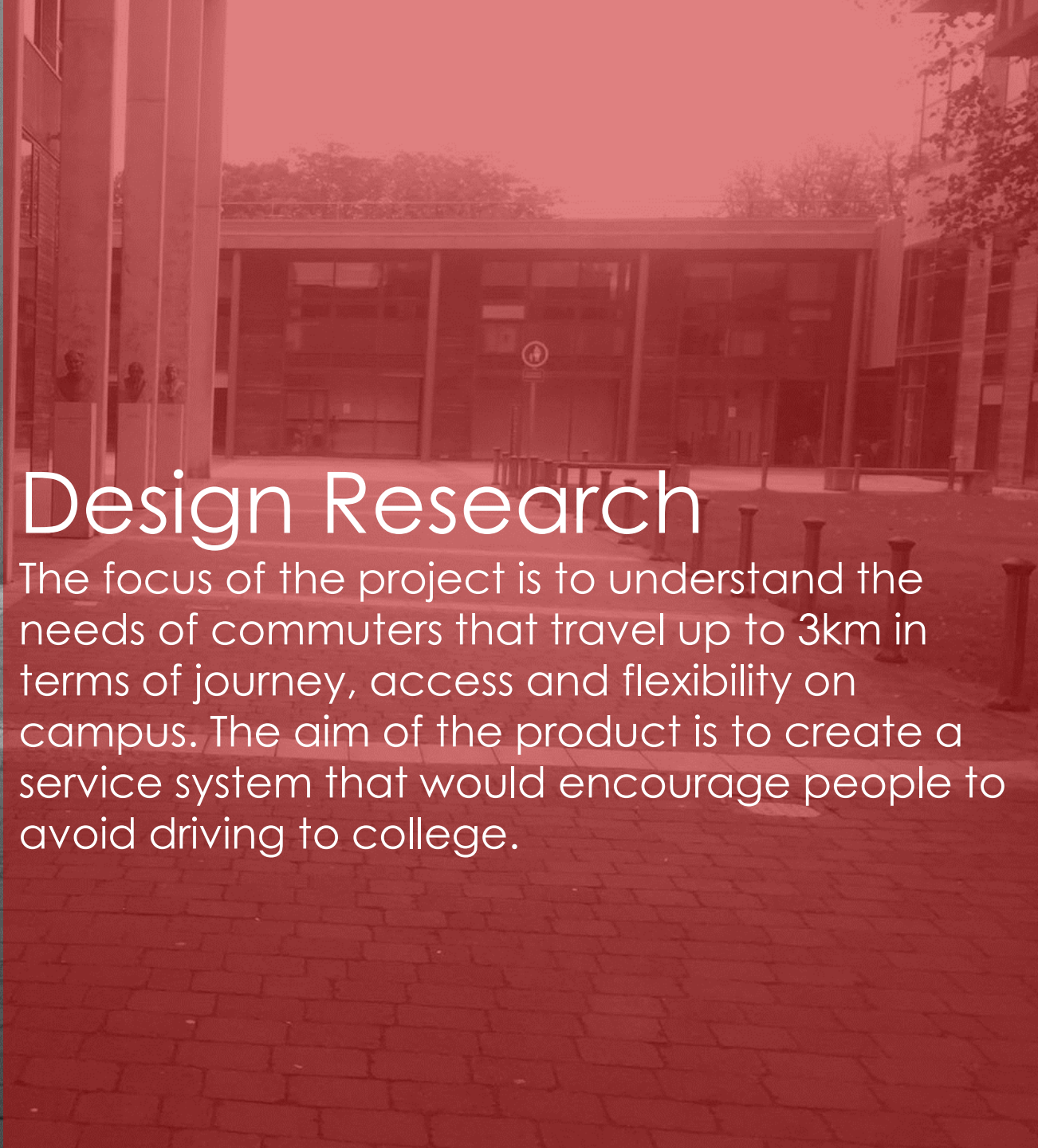
“To discover and question today’s student personal outlook on smarter travel to accomplish a more efficient and sustainable university travel network.”

Carolyn O’Donoghue 15153924
Ryan O’Flynn 15188728
Kate Torpey 15171981





DISCOVER



Design Research

The focus of the project is to understand the needs of commuters that travel up to 3km in terms of journey, access and flexibility on campus. The aim of the product is to create a service system that would encourage people to avoid driving to college.

Error Analysis

Bike Requires more physical exertion than walking, weathers can stop cyclist, can be uncomfortable, punctures happen easily, cycling isn't popular, bike repairs can be costly. Easily stolen.

Bus can be unpredictable and late, journeys can be uncomfortably packed, slow, too small. Assuming there is 150 days of college a year, a student pays 630 euro on transport there and back from college. Interaction with people is necessary. Awkward

Walking takes longer, walking can be hard in bad weather, bringing more clothes to keep dry from rain, can be annoying, would have to have good comfortable shoes, no comfort, tiring before lectures



Interview Questions

We asked 100 students to participate in these interview questions. All ranging from fourth to first year. We asked random students these questions in the hopes of understanding what their opinions were on smart travel in UL. The students interviewed all lived within a 1km-2km of the college. Our findings showed that 3 quarters of students used all 3 types of smart travel but most if they had the option would travel by car, even with such a small distance to travel. It was more so comfort that appealed to students and so they did not consider price of cars to run.

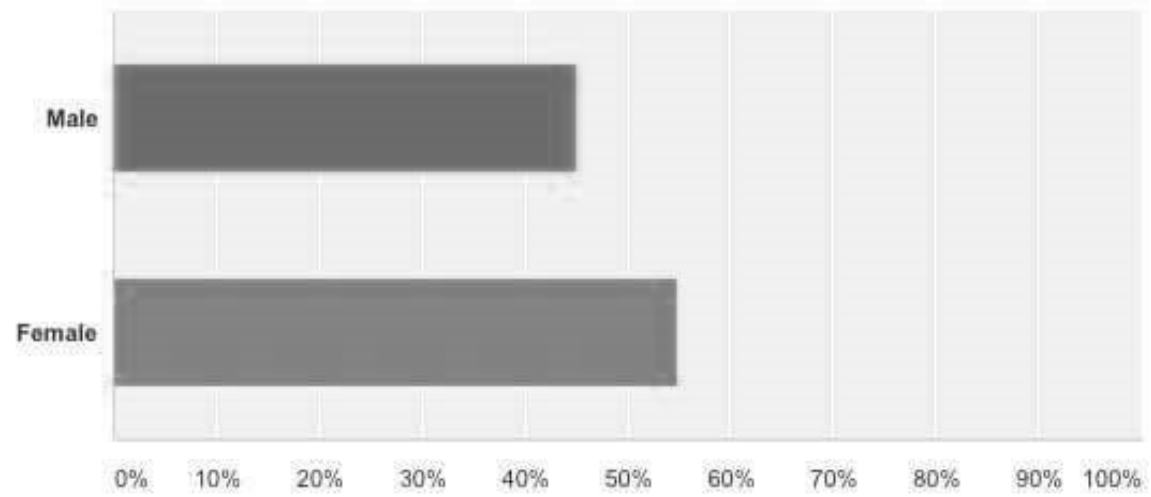
Q1

Customize

Export ▾

Are you:

Answered: 62 Skipped: 1



Answer Choices	Responses
Male	45.16% 28
Female	54.84% 34
Total	62

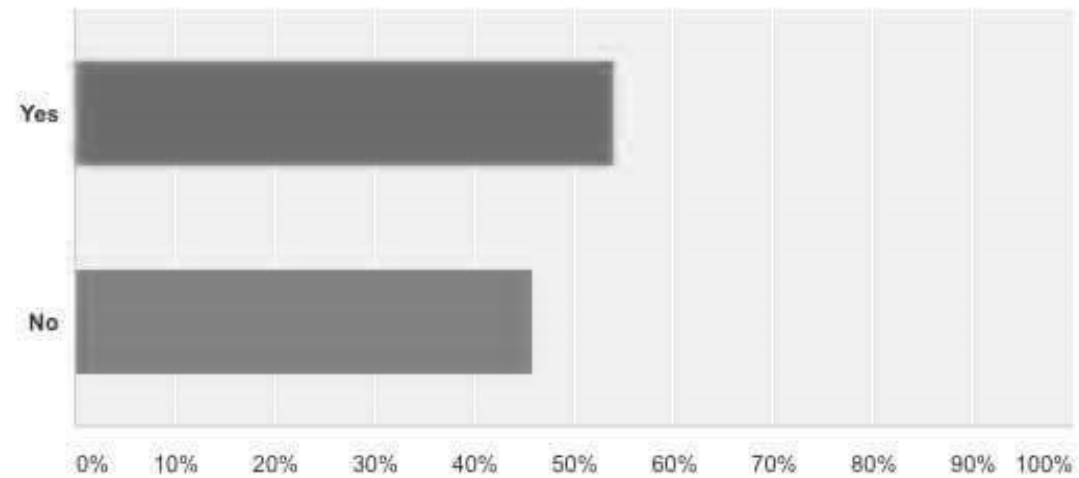
Q5

Customize

Export ▾

Does your timetable affect your mode of transport?

Answered: 63 Skipped: 0



Answer Choices	Responses
▾ Yes	53.97% 34
▾ No	46.03% 29
Total	63

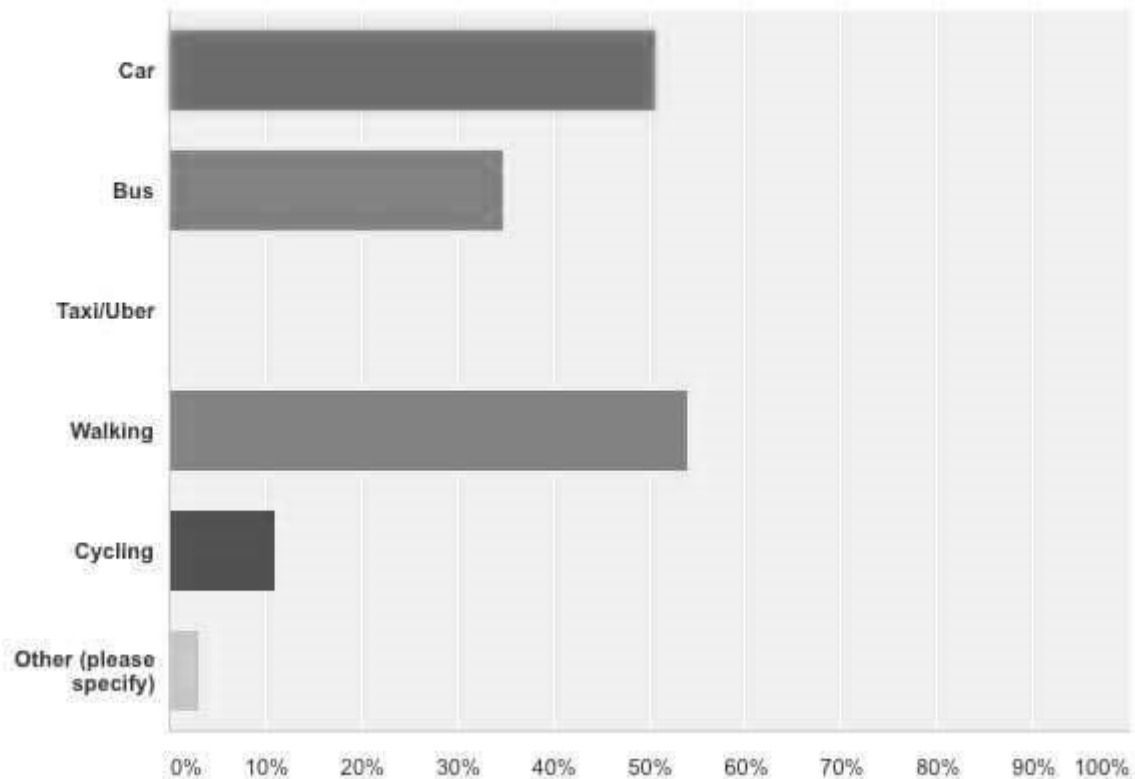
Q3

Customize

Export ▾

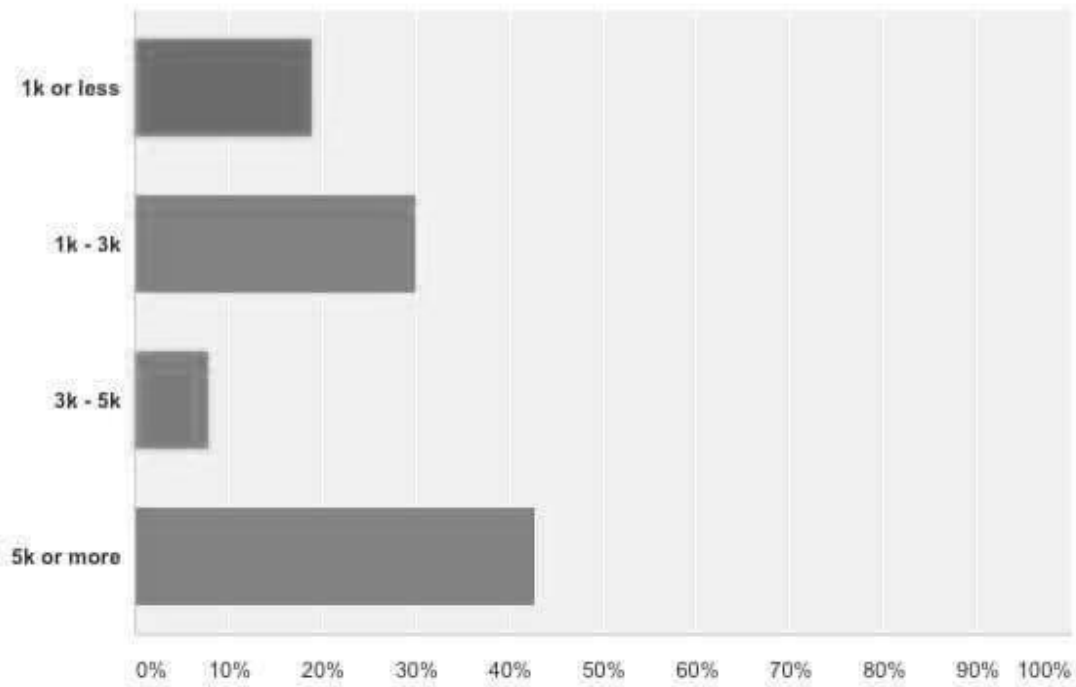
In a typical day, which of the following forms of transportation do you use? (Check all that apply)

Answered: 63 Skipped: 0



How far is your commute to work/college?

Answered: 63 Skipped: 0

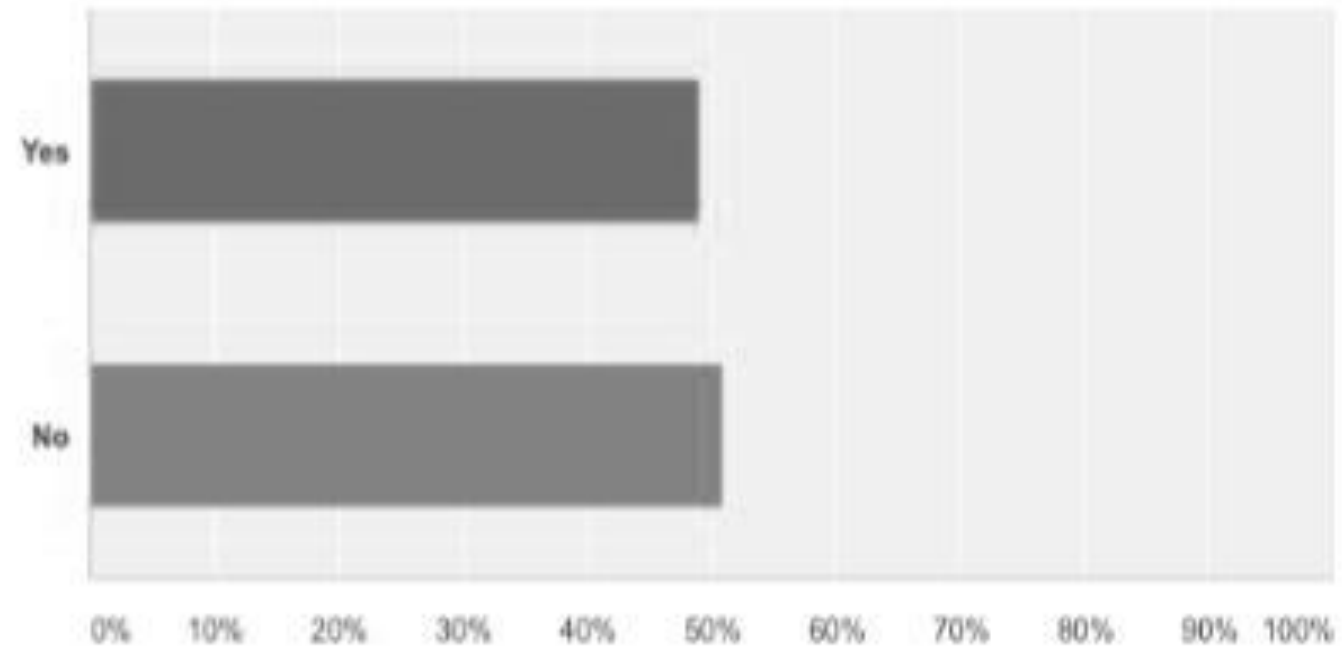


Answer Choices	Responses
1k or less	19.05% 12
1k - 3k	30.16% 19
3k - 5k	7.94% 5
5k or more	42.86% 27
Total	63

Q5

Does your timetable affect your mode of transport?

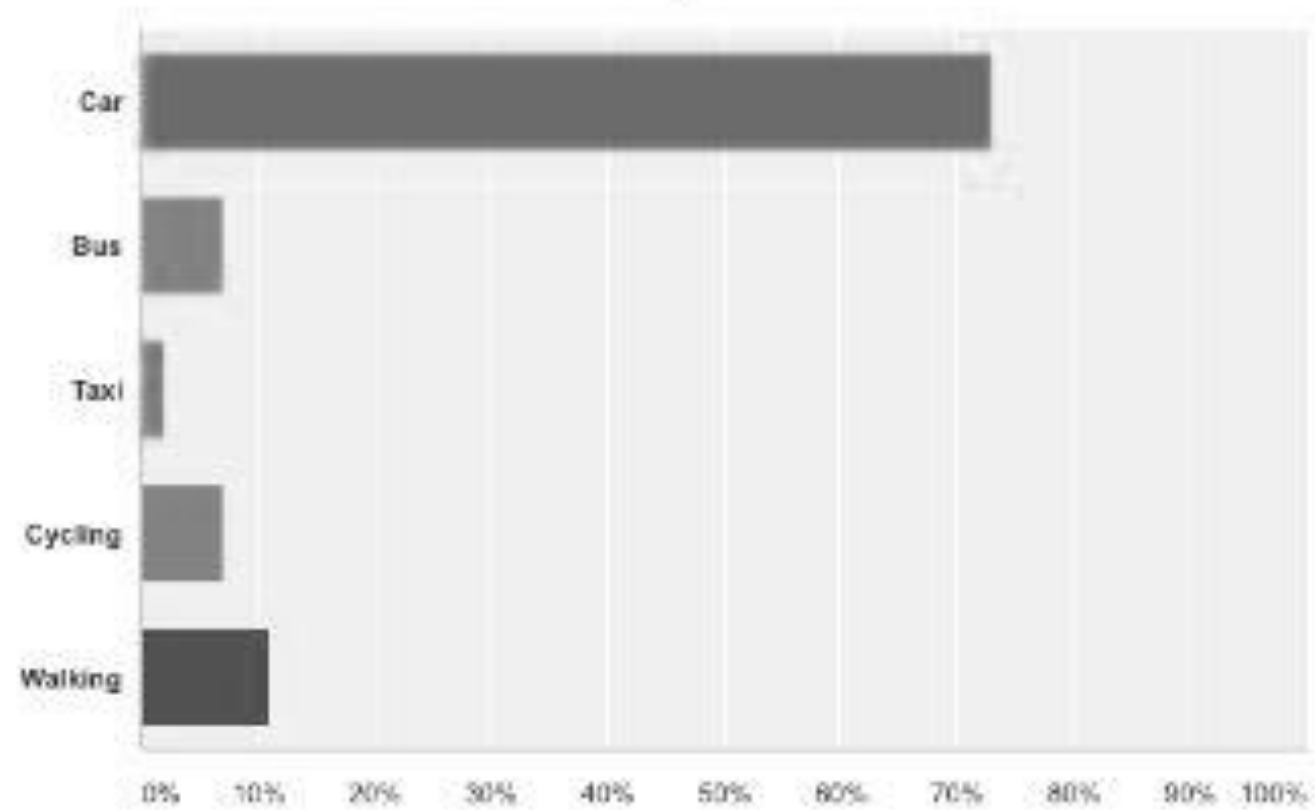
Answered: 100 Skipped: 0



Q6

If you had the choice of any mode of transport what would it be?

Answered: 100 Skipped: 0



A day in the life

We asked one student to document their travel to college throughout 1 typical college day. This student lived 1km from the college In Elm Park, had a 9am to 6pm everyday as she is a Science Ed. student. She travelled to college by foot, it takes her 15 minutes to get to campus. Weather is "horrible" today and it has rained through the night. If the weather had been better she would have cycled to college on her bike but she finds it hard to travel in cold weather. By 12am she has a two hour lunch and travels home. She takes a long lunch and is running late to her lecture, she walks across the pitch to save her journey by 5 minutes and makes it to her lecture on time. But her shoes are destroyed in mud from the rain.



Who?

Public 

Car Drivers

Peds 

Students

Disabled

Elderly

Workforce

Public Service Drivers

Children

What?

Bike

Car

Bus

Walking

Train

Save MONEY

Mental Health

Environment
Social Experience

Health

Where?

Roads

Park

Bike lane

College

The City

City

Where you live

When?

Weather 

Rush Hour 

FRIDAYS 

Evening 

Why?

Timing 

AVAILABILITY 

LAZYNES 


Emotions 

Money 

Comfort 

Lifestyle 

Personality 

popularity 

The Five W's



Video Interviews

<https://vimeo.com/182704383>

- 1.How far away are you located from the college?
- 2.What form of transport do you use to travel to college?
- 3.What are the benefits of this form of transport.?
- 4.What are the disadvantages?
- 5.Does your timetable affect your mode of transport?
- 6.If you had any option to travel on transport for college what would you choose and why?

Our findings showed that all participants used all 3 types of smart travel. 60% of participants said if they had the option, they would travel by car. The comfort of a car had a huge appeal, price of cars to run and the effects on environment were not evidently a concern amongst participants.



Observations | Problems | Need Statements

Observations	Problems	Needs
1.Buses are often cramped	cramped buses make people feel uncomfortable	less cramping
2.Weather can be unpredictable	bad weather makes people unwilling to walk to college	travelling to college without being affected by the weather
3.Cycling is the quickest way of travel for a student travelling to college	cycling can be tiring	a way to make cycling easy
4.Timetables affect users mode of transport	travel needs to be exact	a way to have travel exact to student timetable
5.Buses are often late	buses don't arrive on time	to have buses arrive on time
6.Cyclist are often involved in accidents	cyclist have more accidents	to prevent cyclist from accidents
7.Heavy equipment can be hard on bikes	unable to carry a lot on a bike	allow users to be able to carry more on their bikes

Observations	Problems	Needs
8.Traffic is heavy in mornings	traffic prevents arriving on time	to prevent traffic congestion
9.Traffic is heavy in the evenings	traffic prevents user from getting home	to prevent traffic congestion
10.Cars are not cost effective	cars are too pricey	make cars more cost effective
11.Buses can be costly if used daily	bus is too expensive	buses need to be cheaper
12.Buses go longer routes to arrive to destination	buses can have long journeys	bus journeys need to be shorter
13.Shortcuts are used by walkers	users don't like travelling long journeys	find a quicker way for users to travel
14.Students on campus usually walk	students walk because on campus is close	students need other way to travel then walking

Observation	Problems	Needs
15.Bikes are robbed often	bikes are valuable and easily taken	make bikes more secure
16.Bikes require physical exertion	cycling can be hard if not fit	a way to travel without physical exertion
17.Punctures happen with bikes often	bike wheels are vulnerable	a way to protect bike wheels from being punctured
18.There is glass on cycle paths	bikes can be easily punctured by glass	need to protect bike wheels from glass
19.Walking takes longer than cycling	walking slower	a way to walk faster, than a bike
20.Car users take longer to park vehicle	parking uses up users time	a way to speed up parking
21.Icy roads make cycling hard	cycling in icy condition is dangerous	to be able to cycle in icy condition

Observation	Problems	Needs
22. Where you live affects your transport	further away, more likely to drive	to encourage other forms of transport, even at a distance
23. Research has shown that people would prefer travel in car if they had the option	cars are popular and comfortable, people are less likely to swap to other forms with less comfort	make cars less popular to encourage users to use other transport
24. The environment doesn't usually affect users choice in mode of transport	users are inclined to pick they're the transport option they prefer -	try convince people to change their usual mode of transport
25. Bus journeys are boring and cramped	people are less likely to take the bus at peak times	have more buses run more often to avoid congestion
26. Short distances to college are made much longer by bus as there are so many stops on the way	buses can sometimes be time consuming -	increase the amount of buses running and decrease the amount of cars on the road
27. Public transport can be difficult for users who are anxious/nervous	buses/trains are often cramped at peak times	create a maximum amount of people that can travel on transport at a time
28. Public transport is often crowded	public transport is often crowded	increase the amount of public transport

Observation	Problems	Needs
29. you travel in the rain you may need to change attire when you arrive to college	clothes often get damaged in the process of travelling in bad weather conditions	implement drying clothes facilities throughout the college to encourage users of transport to stay biking/walking etc..
30. There are a lack of shower facilities in the university	this can lead to bad odours from some smarter travel users	create public shower facilities
31. Smarter travel emails are spamming students emails accounts	student received a lot of irrelevant emails	approach students from a different direction to raise awareness of smarter travel
32. Smarter travel emails are usually ignored-	the emails are seen to offer nothing to the students	make the emails clear and concise , not mention smarter travel mention price incentives
33. Cars aren't affordable for many students-	the cost of cars can be used to fund better things in a student's life	buy student bus monthly pass or invest in a bike
34. Cars are beneficial as you can store equipment in them while	cars are spacious	invest in a bike with the same amount of storage

Observation	Problems	Needs
36. Cars are a comfortable form of transport	cars are less cost efficient	show car users the money they can save choosing different methods of transport
37. There's a lack of entertainment in travelling to college	they're is a lack of colour on campus	implement more art and colourful things around the grounds
38. Comfortable footwear is needed when walking long distances-	comfortable footwear is often expensive	offer student discounts for comfortable footwear
39. Most users travelling to college are between the ages 19-22-	encourage these users to choose positively	offer incentives to users who pick good modes of transport
40. Cars cause a lot of environmental damage-	cars with bad emissions are bad of the environment	make cars that are good for the environment cheaper to encourage users to purchase these cars
41. Carpooling is more environmentally friendly when using a car to travel	people who travel together save the environment	set up a class group who travel to college together
42. Walking is a health benefit	walking is often done by students	often walking incentives to people

Observation	Problems	Needs
43.Cycling is exercise	cycling is good for your health -	offer prizes for people who often travel
44.Walking is free	walking is good for your health	offer prizes to people who walk a lot , do competitions to increase walking productivity
45.Car is most convenient	cars are expensive	show that other methods are as convenient and cheaper
46.Cycling is a one off cost for bike & gear-	cycling is good for your health	offer prizes to bike users to people who bikes a lot.
47.There are bus sheds available at the university	there are not enough shelters	build more shelters
48.Students like to use a 'popular' form of transport	popular transport is not the smartest form of transport	make smarter forms of transport more popular
49.Bike sheds are available for students living in on campus	Bike sheds are not available for students in off campus	Bike sheds should be built in off campus accommodation

Observation	Problems	Needs
50. Being hungover affects your mode of transport	drinking	need to stop drinking
51. What you need to bring to college affects your mode of transport-	too much stuff needed for college	a way to easily transport your luggage to college
52. The mode of transport you chose dictates what time you have to get ready for college in the mornings	you have to get up early depending on transport	quicker
53. The mode of transport users friends take effects the users decision-	peer pressure for travel	stop peer pressure
54. Electronic bus timetables are often incorrect	timetables are inefficient	more efficient bus timetables
55. If you walk to college extra gear (umbrellas, rain jackets) are needed-	extra luggage if you walk to college	a place to put your gear when you're in college
56. Large crowds are usually	too many people waiting for the	more frequent buses

Observation	Problems	Needs
57.Waiting around for buses is time consuming	buses take too long to arrive	buses need to be on time
58.The cost to travel in and out to college everyday on a city bus is 4.20	this cost is expensive to pay everyday into college-	reduced prices for everyday use
59.The bike doctor is available to help with bike repairs on campus every week-	he only comes once a week which leads to long queues	the bike doctor could come more than one day a week
60.If damage is done to bike, other alternatives need to be taken	bad roads damage bikes	better maintenance on roads for bike users.
61.cycling can be difficult for new college students that don't know the area	not enough road maps and directions	more cycle maps and routes.
62.High visibility clothing needs to be worn by users that walk/cycle in dark mornings/evenings	Having to buy visibility clothing	Free clothing for cycle/walk users
63.If you have to walk or cycle, the weather can greatly affect your	possibility of not dressing appropriately for the weather	easily accessible weather forecasts

Observation	Problems	Needs
64.The peak times for users to take the bus are 8-9 in the morning and 5-6 in the evening	Buses are full and lots of traffic	More buses at this time of the day
65.Other buses(than bus eireann) travel to college but timetables are unavailable for them-	no timetables available for other buses	make timetables available for buses
66.Bus journeys can be up to an hour long for only a short distance	bus routes are too long	make more bus routes
67.Some walkways are not as efficient as other routes to some college buildings	walkways are not efficient	more efficient walkways
68.There is a lack of information on bike sheds in the college-	information is not widely available on bike sheds -	advertise bike sheds
69.Cycling is becoming a very popular mode of transport-	congests walking paths	make bike lanes and pedestrian lanes separate
70.Walking or cycling can be hard after a long day in college	people are tired after college	shorter days at college

Observation	Problems	Needs
71. Walking with friends makes the journey's quicker	students need communication-	a way to allow students to communicate while walking
72. Being in communal transport with people makes people feel happier	being in a public place interacting is nicer than being alone	need more interactive transport
73. Being in communal transport with people makes people uncomfortable	being in public interacting is hard for some people	make smarter transport more concealed for some students.
74. You need certain clothes to be prepared for cycling long distances	clothes not suitable for cycling-	make clothing more suitable for long distance cyclist to college.
75. Roads can be dangerous for cyclist if not properly marked-	no marking on roads for cyclist-	make more cyclist friendly road markings
76. Car users don't care very much about cyclist safety-	not enough awareness for cyclist on the road	make car users more aware of cyclist
77. Being physically fit encourages you to commit to smart travel	have to be physically fit	encourage more students to be more physically fit

Observation	Problems	Needs
78. students that are lazy will not be inclined to use smarter travel	students are lazy	encourage students to take part in easy smarter travel activities
79. Music helps students to travel to college	music encourages student to move	make more paths music friendly
80. There is no comfort in walking to college compared to a care	no comfort in walking	make walking more comfortable for users
81. Cycling is the quickest way of travel for a student travelling to college	cycling can be tiring	make cycle paths to make journeys quicker
82. Cycling can be a health risk	cyclists need to use protective clothing	make the clothing readily available
83. Walking is found to be a task for students	make walking an easier mode of transport	ask students how we can make walking an easier experience
84. Students that are hungover are more likely to take a car to colleg	cars are bad for the environment	cars are not cost efficient convinc e student to take other cheap met

Observation	Problems	Needs
85. Smarter travel is an unknown tool of UL to many students	Smarter travel is good for the public's health and safety	advertise smarter travel more around the campus
86. Paths for cyclists and pedestrians are often blocked	blocked paths can cause accidents	make clear pathways to a good standard throughout campus
87. Cars are fast	they are a danger to bike users	ensure all bike users are wearing reflective gear.
88. Walking is difficult if during cold conditions	icy paths is an obstacle for students traveling to college	Make paths more safe during icy conditions
89. Students don't have enough money for the bus	buses are too expensive	cost the cost of buses
90. Cycling can be one of the quickest methods of transport	accidents often happen to cyclists	make sure there are clear signs throughout the college to make it safer for cyclists to travel
91. Buses are boring	buses haven't any entertainment	add entertainment to buses

Observation	Problems	Needs
92. Buses are a waste of time	buses don't utilise the space	include charging ports & tables
93. Buses are slow to reach destination	buses stop too frequently	have less bus stops
94. Buses don't bring you to direct destinations	routes too long to only popular stops	more direct bus routes to precise locations, shorter routes
95. Bus drivers are rude	rude service	make bus drivers more positive
96. Bicycles can be expensive	too expensive	make bicycles cheaper
97. Bad weather makes people sad	Bad weather ruins mood	be more positive about weather
98. Cycling can be sore	Cycling is uncomfortable ->	Bike seats should be more comfortable

Observation

Problems

Needs

99. constant walking can be tiring

walking is tiring

make walking easier

100. road sign confuse road users

road signs not clear

make road signs clearer

KATIE MURPHY



“All I want is an easy life”

AGE 19
OCCUPATION Student
STATUS Single
LOCATION Oaklawns
TIER Busy Musician
ARCHETYPE The Rusher

BIO

Katie is a traditional music student in University of Limerick. Katie has a very busy college timetable in which she has 9 o'clock starts each morning, and most days she is in college until 10 o'clock at night. Financially, she has no outside job and struggles to hold money down. Previously, she had been living in digs in Anacotty, 2.7km from the university. She would take the bus every day for 4.20 and it would take 20 minutes to get on to the college grounds and then another 10 minutes to walk across the bridge to her classes. She moved to Oaklawns because it was closer to the college and she wouldn't have to pay for the bus every day and wouldn't need to wake up unnecessarily early. But with living there she still has to walk to college which is a 20 minute walk. Because of her course she is required to bring her violin and flute with her every day, which can be quite heavy including her bag. Sometimes she will walk over the pitches if they are not waterlogged, this saves her journey 5 minutes. If she was financially stable enough she would drive every day because she likes her comfort. She hates walking but she prefers it to spending money on the bus which she can never depend on and in her course she has to be punctual.

PERSONALITY

Quiet
Timid
Impressionable

GOALS

To get to college quickly without any exertion or cost.

FRUSTRATIONS

Arriving late to classes
Being tired and red faced every day
Getting soaked in the rain.

MOTIVATIONS

Education
Interacting with Peers
Punctuality

Scenario

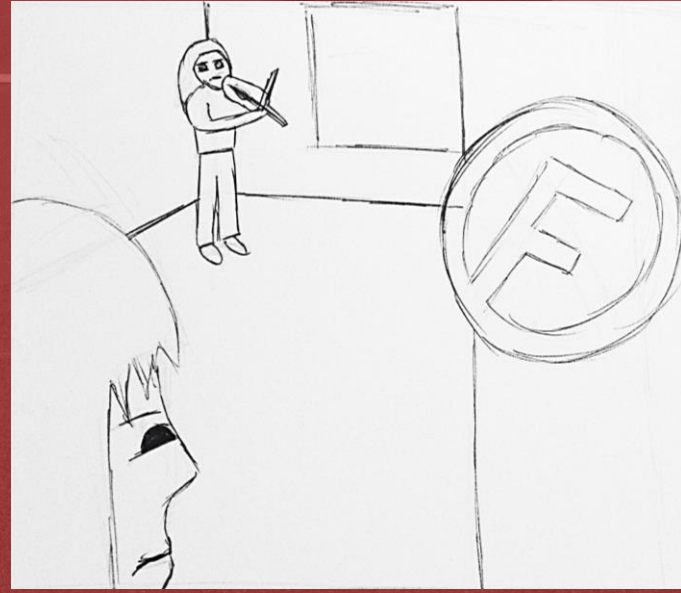
Katie wakes up at 9:30, she has slept in and is in a panic because she is running late and knows she will be docked marks for poor attendance from her violin teacher. She packs and is ready at 9:45 to leave. She steps outside and there is a light drizzle, she leaves abruptly and forgets her coat.

She's just out on the main road and looks across to the UL Football Pitch. Without Even thinking she starts briskly walking through the bushes on to the pitch. She's taken 20 steps and regrets every one of them as she is almost up to her ankles in mud.

The pitch is completely bogged from the past rainfall. Just as she's halfway through the pitch a heavy downpour begins and she is now 1. Covered in mud and 2. Soaked to the skin.

Internally she's just hoping that this can be the final straw, she just goes home and put her PJ's back on but there's no hope of that with her course. She persists through the pitch but still has another 20 minutes before she's in class.

She continues walking, just past the library at this stage, at least there's a small bit of shelter for a moment. The rain hasn't stopped and her whole body is freezing. She crosses the bridge finally and arrives at her lecture she's late, soaked and covered in mud and feels absolutely miserable.



STEPHEN CALLANAN



“Never cycling again”

AGE 19

OCCUPATION Student

STATUS Single

LOCATION Grove Island

TIER Normal

ARCHETYPE The

Procrastinator

BIO

Stephen is a student who travels to college 4 days a week via city bus and travels home at the weekends to Galway via train . Stephen is in his second year of university. Stephens timetable allows him to have Thursdays off, but 9am starts on Monday, Tuesday and Wednesday, and an 11am start on a Friday. To get to college on time for 9 o'clock, Stephen must leave his apartment at 7:55 to walk down to the bus stop for 8:10. The bus is due to arrive at 8:15, however it often does not arrive until 8:30. This delay & the traffic in the morning usually causes Stephen to be late for his classes. In some cases Stephen gets a taxi if he has something important to be in for as the bus is usually unreliable. This is very costly. Stephen takes the bus home when he's finished his classes. In first year Stephen took a bike to college. The route he took allowed him to get to college in 15 minutes. Stephen often suffered punctures to his bike tyres from the debris and glass on the roads. These constant repairs were a nuisance and costly. After leaving his bike overnight in college one evening, due to bad weather, he returned to find it had been stolen. Stephen then brought up another bike from home to use but the bike was old and not as comfortable. Stephen eventually got fed up of this so he opted for the bus. He found the bus more comfortable in the mornings and he preferred to not get wet from the rain and keep warm inside the bus, despite the fact that it is often late and unreliable.

PERSONALITY

Introvert
Intuitive
Insightful
Perceptive

GOALS

To get to college on time
To not have to wait around for long periods of time for buses
To be more cost efficient
To be more organized when managing bus times and his timetable

FRUSTRATIONS

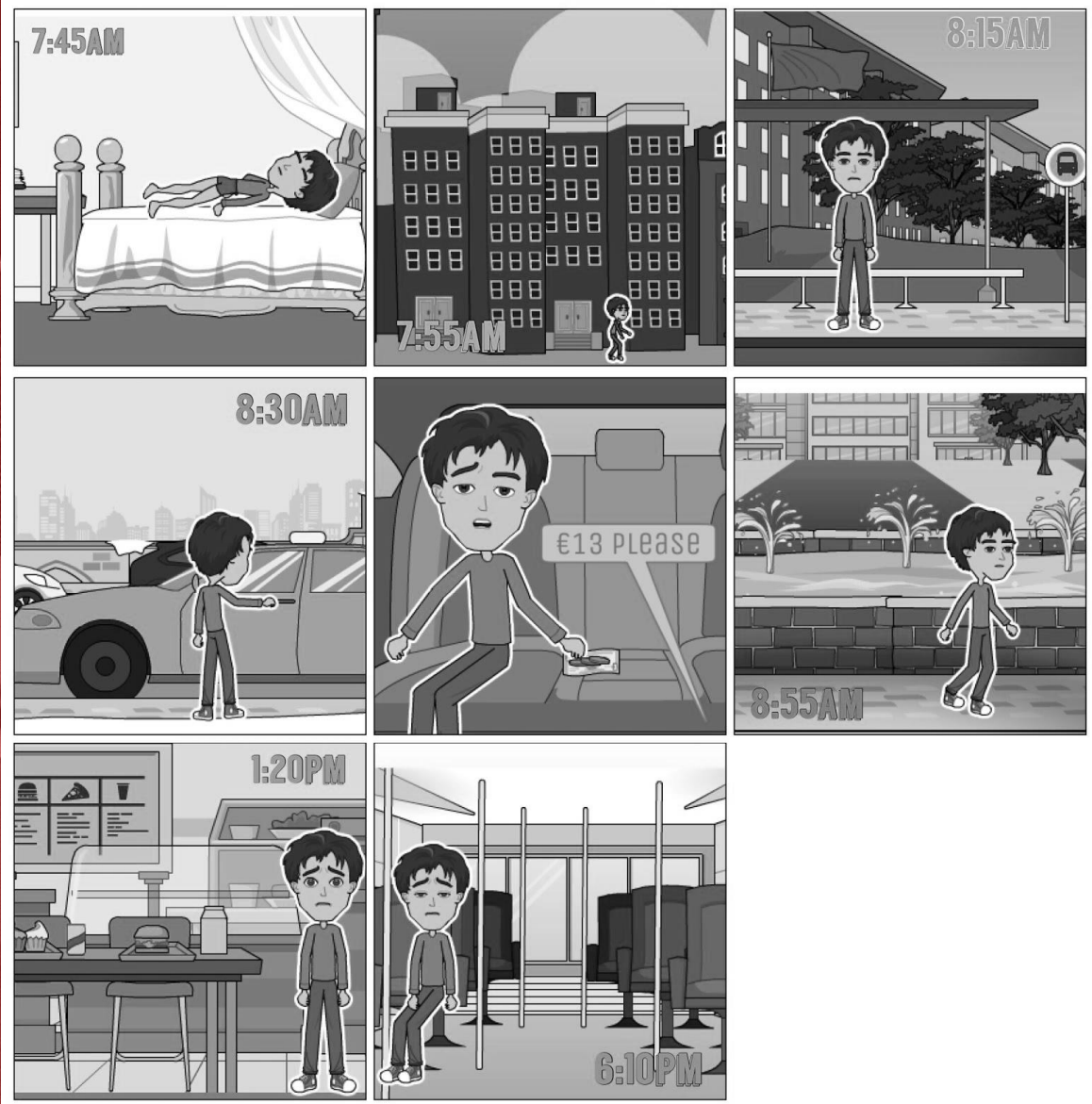
Buses being late
Arriving late to college due to heavy traffic
Waiting a long time for buses
Having to get up very early to make a short journey to college
Not being able to rely on the bus to be on time

MOTIVATION

Comfort
Speed
Destination
College

Scenario

Stephen gets up as per usual for his day at college at 7.45am. He makes his way to the bus stop which is a 15 minute walk from his house at 7:55am. The bus does not arrive on time and it is now 8:30. Stephens lectures begin at 9am. As Stephen doesn't want to be late and miss out, he hops in a taxi and makes it just on time. This taxi cost thirteen euro. Stephen could not afford lunch that day as he spent his money on the taxi. Stephen gets the bus home at 6pm that evening tired and hungry.



GARY MCGOWAN



"I like to keep fit"

AGE 21

OCCUPATION Former Physio Student

STATUS Single

LOCATION Castletroy

TIER Normal

ARCHETYPE busy

BIO

Gary is an inspiring fitness entrepreneur, For him time keeping is extremely important. Although Gary operates his own business from home as his business is computer orientated. Gary also works out of a Gym where he can meet and train his clients face to face, this trip that he completes to the gym almost daily is very repetitive (50 minute one way trip) and does not offer a bus route and as Gary does not own a car his only method of transport is walking. Although he enjoys and encourages this mode of transport Gary wants to find a more efficient quicker mode of transport. I suggested the use of a bike but Gary believes the bike theft problem is too large in Limerick and he doesn't see it as a worthy investment.

Goals

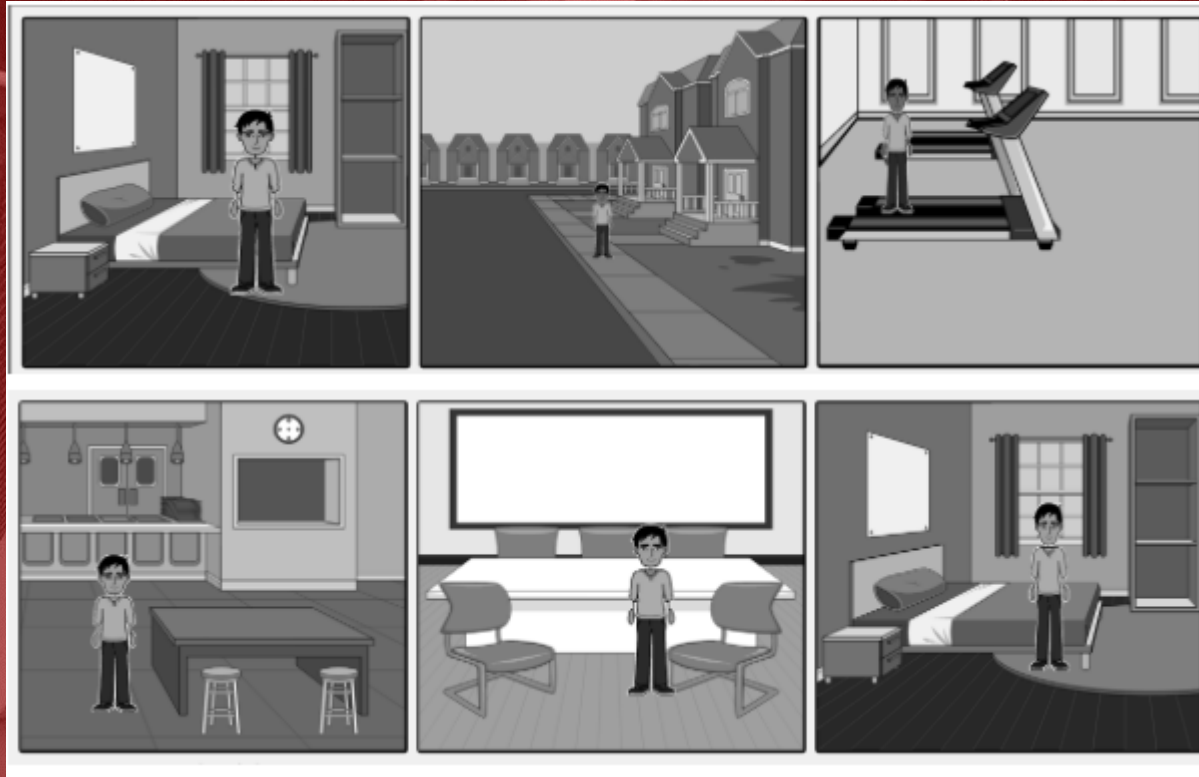
To find a healthy mode of transport-
To stay healthy and active as he works long days (14-18hours) -
To make his travel choices benefit the environment
To ensure his transport is stress free and completely co-dependent

Frustrations

To much time spent walking to and from his gym outlet-
No bus route provided where he is located (easy way business park)-
Bike isn't an option as he has had countless bikes robber before, doesn't think its worth the money.

Scenario

“A usual day in the life for Gary is a very early start, Gary typically wakes up at 4:30 and starts work with self-owned his online business. He believes that as he is up this early that he can get the most work done as people are usually asleep at this time. With no car, his usual method of transport is walking which can be very time consuming. He rarely gets the bus but there is an exception when he is traveling long distances. During the day he will travel from the gym and back. On this particular day Gary does this shopping for the week, so he makes a trip to Aldi and back. Also Gary works with some of his clients from his online business out of a local gym located at the east way business park. On a usual day Gary is extremely active and will take from 35000-40000 steps in one day.”





Chosen need statements

"a way to travel to college without being affected by the weather, for students in university, in order to make students more inclined to use smarter travel"

"a way to travel without much physical exertion, for students in university, in order to make students more inclined to be less tired but still use smarter travel"

"A way to encourage other forms of transport than cars, for students in university that live further distances away, in order to make students more inclined to use smarter travel"

"A way to make bus journeys less boring and cramped, for students in university, in order to make students more inclined to use smarter travel"

"A way to make long bus journeys less time consuming, for students in university, in order to make students more inclined to use smarter travel."

Final idea's from the need statements

"By combining my final need statements, I propose a communal sheltered moving walkway for students, beginning at the start of each student on campus accommodation as well as the off campus accommodation used by students in Milford, Elm Park, Oaklawns and college court."

Carolyn

Cars are expensive, run a cheap bus throughout the UL campus that travels in/out of the local student villages. Charge a cheaper price than a usual bus fare and this will encourage lazy students with a car to commute to college in a more environmental fashion, this will also benefit UL's growing traffic problem.

Ryan

"By combining my final need statements, I propose all buses in the city will be double decker for extra room for passengers, mini tables, charging ports and free Wi-Fi for users, overhead storage compartments for extra luggage, and cloud technology software on every bus to allow instant information of the bus's location to be available for users waiting for the bus or waiting to arrive at their destination via electronic timetables and mobile applications."

Kate

A photograph of a modern, curved pedestrian bridge with a red overlay and the word 'IDEATION' in white text. The bridge has a metal railing with a chain-link fence and a concrete deck. The background shows a dense forest of trees under a cloudy sky. The red overlay is a semi-transparent rectangle that covers the central part of the image, and the word 'IDEATION' is written in a clean, white, sans-serif font across the middle of this overlay.

IDEATION

Ideation methods used

scamper

Substitute Combine Adapt Modify Put to Other Uses Eliminate Rearrange

false rules

1. Take an existing rule / quote / idea / suggestion Use sports rules, instruction manuals, books, etc.
2. Apply the rule to your own situation • directly • find a similar principle • look at its benefits

round robin

Brain Writing

1. Each team member: Write down an idea.
2. Pass your sheet to your immediate neighbour
3. Use your other neighbour's idea to:
 - build on the original idea or
 - trigger an entirely new idea.
4. Pass the sheets until yours arrives back at you. No direct communication is permitted.

lateral thinking

thinking "outside the box"

scamper

idea 1

Substitute Paths for moving walkways

Combine Overhead plastic shelters to protect students from all weather conditions

Adapt Allow it to be used not only by students and staff but also used for general public.

Modify to allow cyclist to use walkway also

Put to other uses Can be used by students staff, swiping student card, Public can use moving walkway with small charge of 2.00 euro.

Eliminate Mechanical and electrical problems by using solar panels to produce energy to run the moving walkways.

Rearrange maybe to rearrange where the paths should go to make them as quick as possible.



false rules

7 unbroken rules of user interface design

idea 1.

- 1.LAW OF CLARITY
- 2.LAW OF PERFERRED ACTION
- 3.LAW OF CONTEXT
- 4.LAW OF DEFAULTS
- 5.LAW OF GUIDED ACTION
- 6.LAW OF FEEDBACK
- 7.LAW OF EASING

1.the moving walkway should have directional

2. arrows of direction user wants to take, either forward towards the college of backwards towards the accommodation.

3.the user will prefer to use the walkway if it is free and popular among other students.

4.the moving walkway is a smarter travel initiative and should be advertised as such

5.the default is movement
the guided action should allow student to immersed in a new travel experience.

6.the feedback has to be popular and impressive by the user or it will be un used.

7.the ease of the walkways should allow users to cut their travel time in half and also be practical and use the quickest path possible.



round robin

MOVING

SIDEWALK

Should be sheltered

Could be boring
make it interesting

could be brighter

make it fun

lateral thinking idea 1

For the moving walkway we could make it an experience. Taking inspirations from The Living bridge. They can be connected by the colourful lights. Once it becomes night the living bridge lights up illuminates the path for walkers. I think with the moving walkway the shelter above can light up the dome of sorts.



scamper

idea 2

Substitute student are more likely to take this method of transport rather than their cars as its convenient and cheap

Combine Combining students timetables to do collections for courses

Adapt Allow it to be used not only by students and staff but also used for general public.

Put to other uses Can be used by students staff, swiping student card, Public can use moving walkway with small charge of 2.00 euro.

Eliminate Mechanical and electrical problems by using solar panels to produce energy to run the moving walkways.

Rearrange maybe to rearrange where the paths should go to make them as quick as possible.



false rules

idea 2.

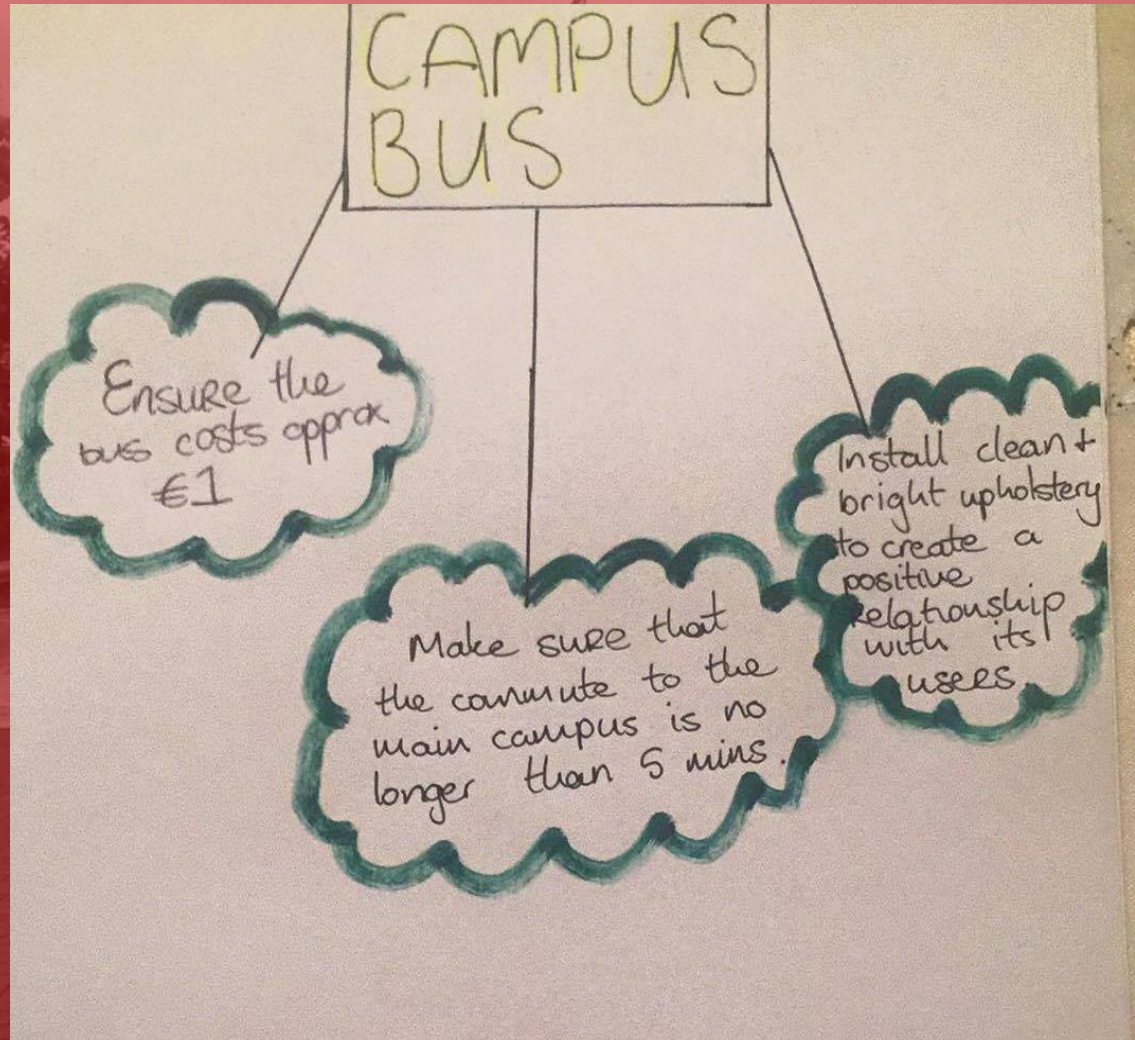
New ideas for campus buses
False rule

Applicants who use the local bus have to be over the age of 18. Users prove age by showing ID whilst taking the bus

There could be a special code and PIN number, which any over 18 student can get from campus by proving their age, which they can later use to access the bus.



round robin



lateral thinking

idea 2

In order to create a positive relationship with its users , I believe that implementing smooth paced music to calm the stakeholders using the local campus bus will give them a relaxing experience and a nice escape from reality. I think that enforcing music will create a number of constructive aspects, music will make the journey seem quicker. Music also adds to the entertainment aspect of the commute, as well as making the journey less boring. My inspiration for this idea came from countless UBER taxis I got in Boston last year and I always found the journey to be more relaxing/enjoyable with music



scamper

idea 3

Substitute Single storey buses for double decker buses

Combine Free Wi-Fi, charging ports and mini tables for a better user experience that allows users to waste less time on long journeys.

Adapt The passengers on the upper floor and rear of the bottom would have workstations (miniature tables, charging ports), whilst the top portion of the bottom floor remains the same for users who are hopping on and off at nearby stops.

Modify The length and width of the bus to allow for more room for each user.

Put to other uses: Apply this style of city bus to standard buses.

Eliminate Time wasting/incorrect timetables by the cloud technology software which allows users to instantly check how far away the bus really is from them by being able to track the exact location of the bus. Also the added benefits of tables, Wi-Fi and charging ports allows users to use their time better by doing work on the bus instead of sitting and waiting for their stop.

Rearrange The layout of the bus to suit users that want to avail of workstations, and to suit users that just want to hop on and hop off.



false rules

idea 3.

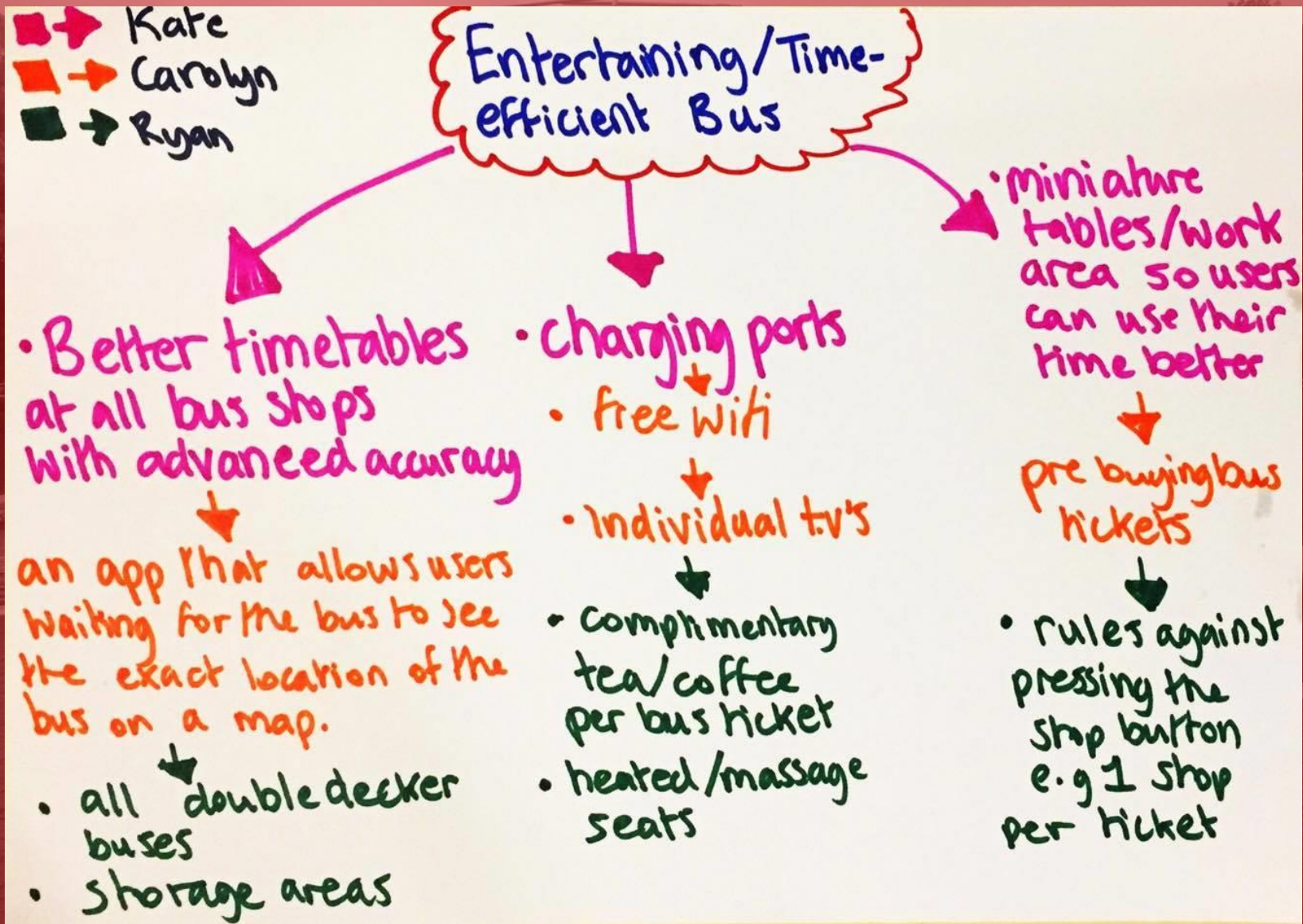
New ideas for city buses

False rule Do not collect 200 until you pass GO!
Do not click the stop button until you pass the stop before your designated stop.

To stop people pressing the stop button before they want to get off, you must only be allowed one stop per ticket.



round robin



lateral thinking idea 3

To include overhead storage area for users that carry a lot of luggage on the bus. This would definitely encourage users that have to carry a lot of things to and from college as they would not have to take up the space they are sitting at with lots of luggage, especially for long journeys. This will help with the centre aisle being congested with bags and users valuables e.g. laptops. This will also in turn create a more comfortable user experience as there will be more foot room and space for each user. Luggage will also be safer overhead as opposed to at the top of the bus or on the ground as you can keep an eye on it yourself. I was inspired by the overhead compartments on planes.





FINAL CONCEPT

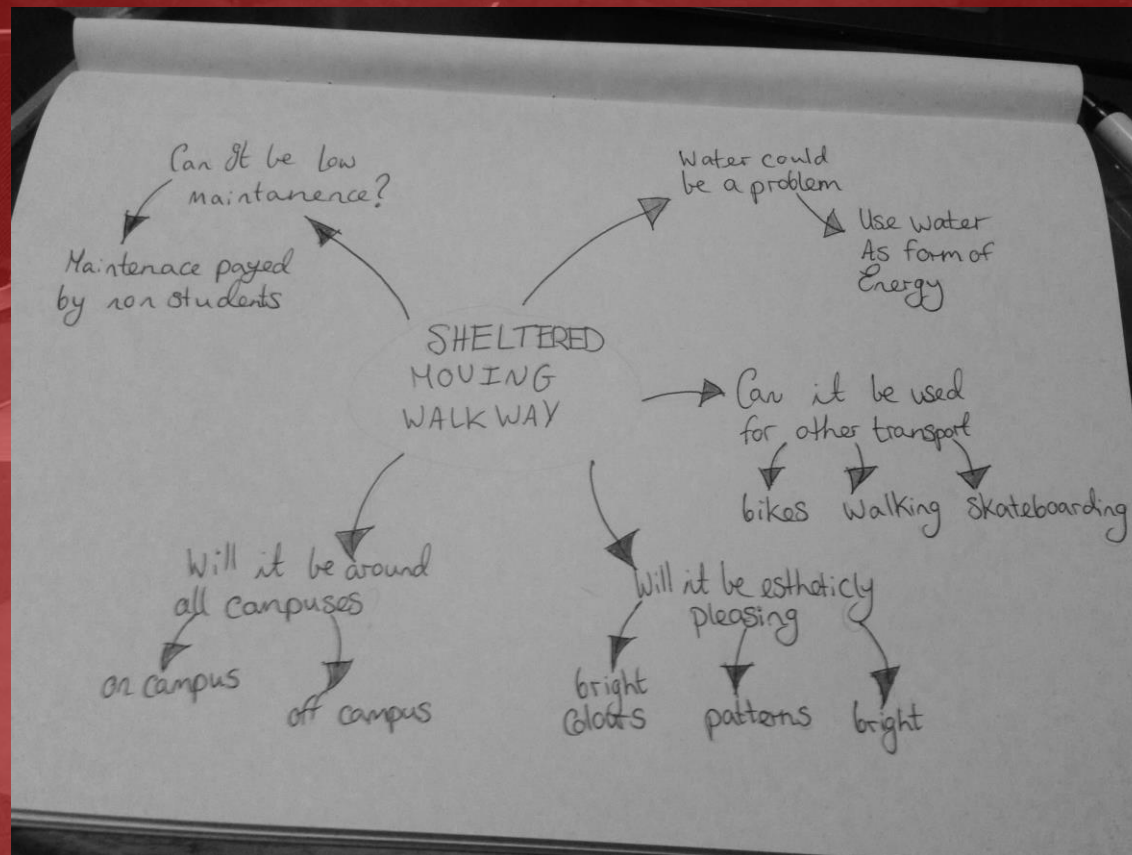
For Chosen Person
KATIE MURPHY

FINAL CONCEPT

idea 1

sheltered moving walkway

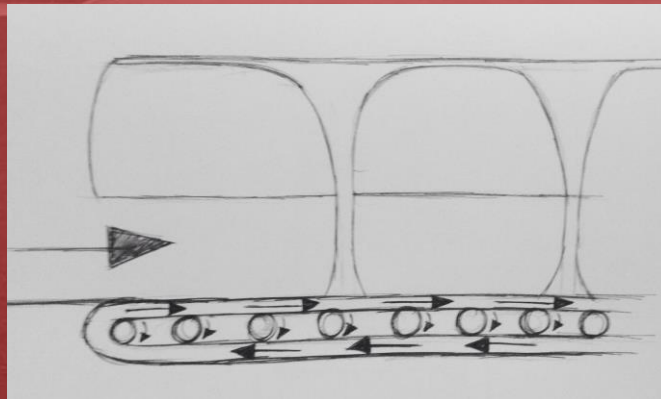
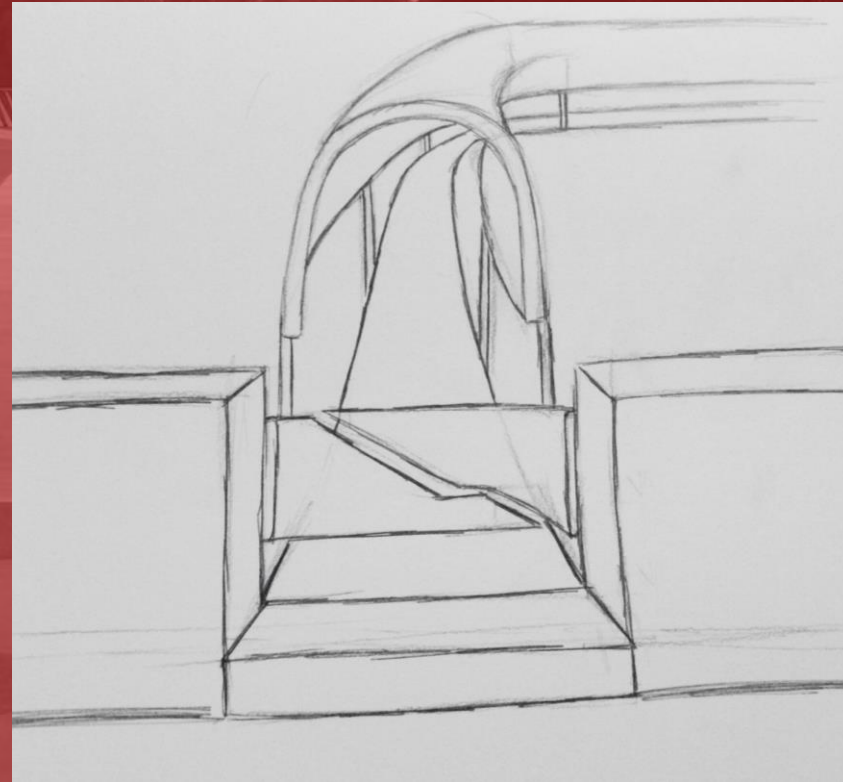
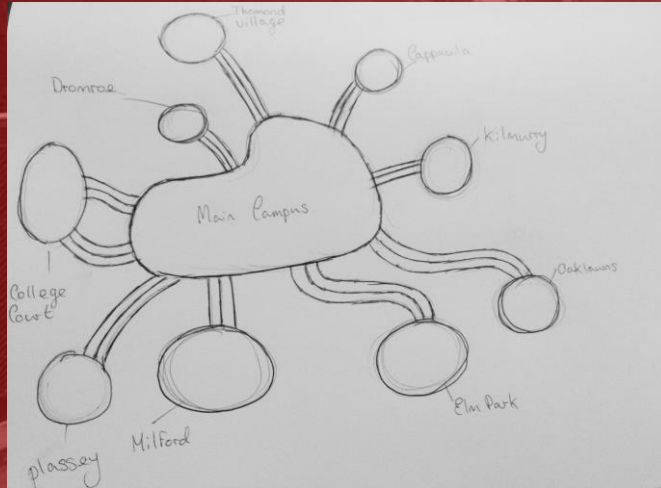
Task Analysis



FINAL CONCEPT

idea 1

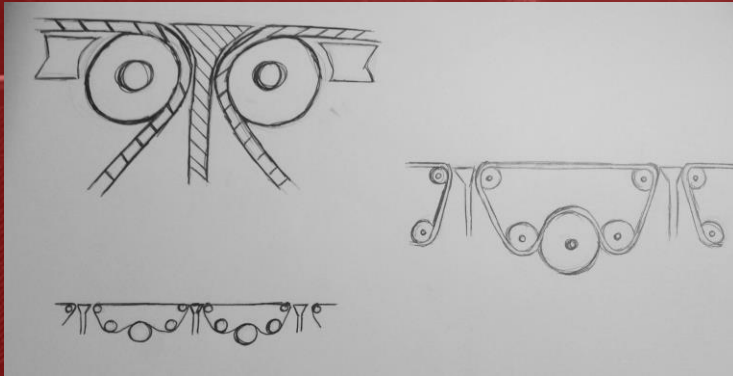
sheltered moving walkway



FINAL CONCEPT

idea 1

sheltered moving walkway



Mechanics of tracks
on walkway

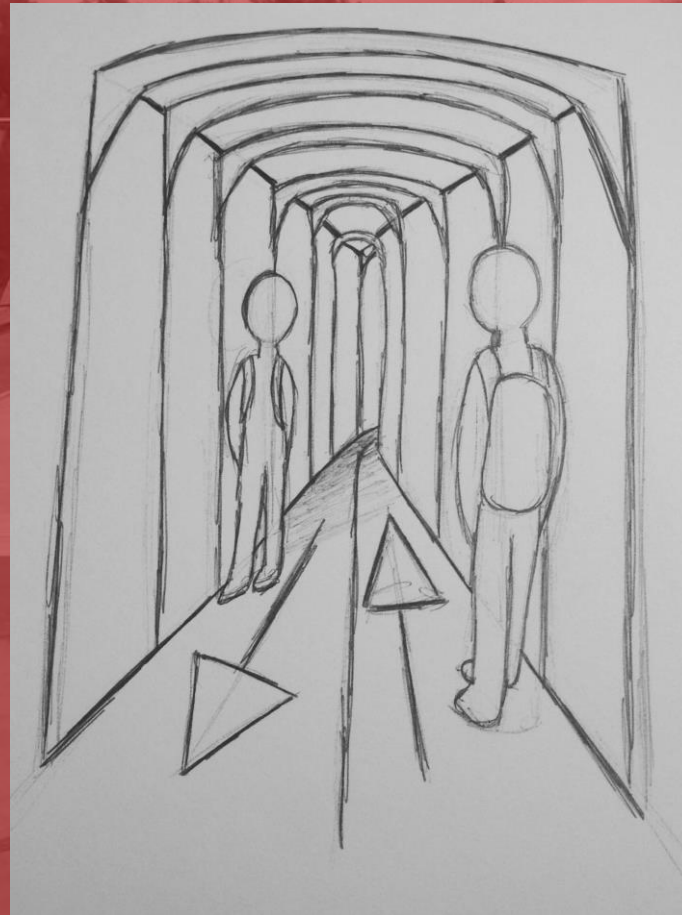
Idea's for light
patterns in
shelter of moving
walkway



FINAL CONCEPT

idea 1

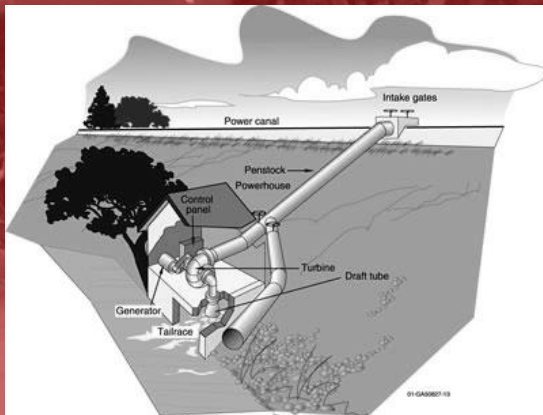
sheltered moving walkway



How is the moving walkway powered

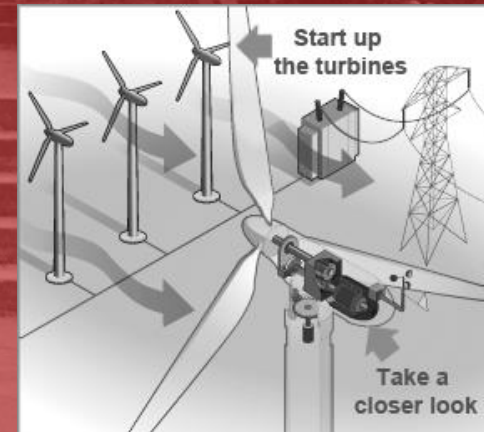
Water

Hydroelectric power typically is a large hydropower system, that uses a dam to store river water in a reservoir. Water released from the reservoir flows through a turbine, spinning it, which in turn activates a generator to produce electricity. This would allow the moving walkway to be powered by the Shannon river that runs through University of Limerick.



Wind

Wind turbines operate on a simple principle. The energy in the wind turns two or three propeller-like blades around a rotor. The rotor is connected to the main shaft, which spins a generator to create electricity. The area around the UL campus allows the potential to build more wind turbines to help power the moving walkway



Consumer Plan Techniques

How will we gain funding for this project?

We could offer the title of the movable walk ways available to multinational companies in exchange for funding & building costs i.e.. "the Johnson and Johnson Walkway"

Show the potential of this exciting project to the University and show how this potential project could entice students to come study here, this project could become UL's trademark. Then encourage the university to invest and make this a more sustainable and better place to work and study.

Crowdfunding , make this idea aware to the public and make them interested to make it happen. Show that the future of UL is bright and worth investing in.



Attract

Interact

Engage

Convert

Objectives

Trigger a need

Understand the need

Provide a solution

Act

Needs

- Weather effects me when I walk
- Walking is tiring
- Most of the time I can be late
- Bored Journey

- Shelter
- Faster
- Free for students
- Visually Appealing
- Comfort

- Sheltered Moving Walkway
- Coloured overhead lighting

- Not effected by weather anymore
- On time to class
- Not as bored
- Not as tired

Feelings

- Annoyance
- Frustration
- Anxious
- Boredom
- Hopeful

- Curiosity
- Guarded
- Inquisitive

- Interested
- Excited
- Relieved
- Comfortable

- Happy
- Resolved
- Confident

Barriers

Fear, Trust, Convenience, Time

Need to know client, Approach, Expectations

Commitment, Popularity Tolerance



THANK YOU