Viewpoints

An Immersive 360 Educational Project 

Jack Hayes Interactive Media 2022

Contents page

Page 1

• Introduction

Page 2

• Meet the Team.

Pages 3-5

Research and Benchmarking

Pages 6-7

• Project Outlines

Page 8

• Demographic & Deliverables

Page 9

• Timeline

Page 10-13

• Design Concepts

Page 14-17

• Storyboarding

Page 18-20

Page 22

• Pre-Production

Page 23-27

• Production.

Pages 28

• Post-Production

Pages 29

• Project Outcomes

Page 30

• Project Reflection.

Page 31

• Project Contribution

Page 32-33

• Project Feedback.

Page 34

• Time Logs

- Pitch
- Pitch Changes
- Pitch Feedback

Page 21

Location Scout

Introduction

This project for MED526 Interactivity for Social Enterprise, is a creative group project. Students are partnered with a social enterprise to work in collaboration with alongside The Science Shop.

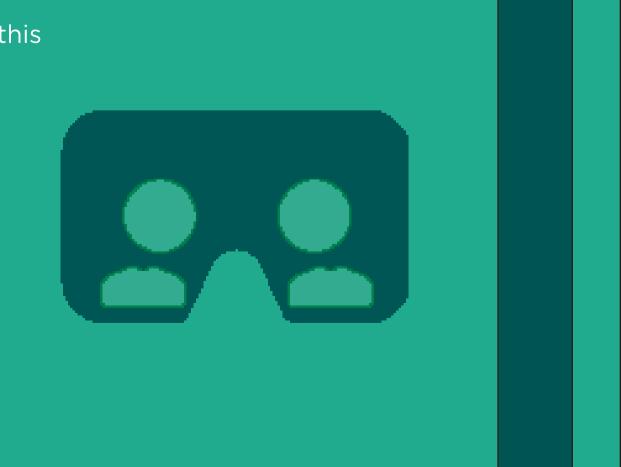
Our group was pitched a project for the Police Service of Northern Ireland. Their community policing team wanted a new, interactive method of delivering presentations on anti-social behaviour and how it effects other community members. The aim of this project was to encourage discussion with young people about anti-social behaviour and what can be done to improve community relations.

Due to the nature of our community partner, some information may be withheld.

The community partner wanted an innovative 360 video for virtual reality covering the topic of anti-social behaviour and it's impact.

This production log will follow my journey from initial briefing meetings through to production right to the end of this project.

Covering everything I did to get this project across the finish line.



Meet The Team



Laurence

A final year interactive media student with a keen interest in video production and editing.

Jack

A final year interactive media student with a curiosity in 360 emerging technology.







Claire Mulrone Project Manager

Adrian Hickey Creative Director

Research

To start the whole project off we had to do some research on what other methods of giving presentations are already in use around the UK. We looked at traditional style presentations and then some of the up and coming interactive presentation methods.

Each of us took three companies/ courses to benchmark against the PSNI's current method. We looked at what the presentation contained, how the presentation followed up on itself, how interactive it is for participants, what its first impressions are and who it is aimed at.

Benchmarking allowed us to gauge what was out there in terms of interactive presentations and how we could design our project to be stronger.

We took some time to set out the criteria we would benchmark against. This is a very emerging project so benchmarking was a difficult process to begin. We set the criteria based on five main categories Presentation, Follow up, Interactivity, First Impression and Target Audience. This allowed us to find the details of how interactive presentations take shape in classrooms currently.

Benchmarking

		Decisions			
Presentation	Worksheets	Yes	Νο	Yes	Νο
	Powerpoints	Νο	Νο	Νο	Yes
	Video	VR Video	Yes	Yes	Νο
	Structured Tasks	Yes Workshop	No - Only Video	Yes - Includes class sheets	Νο
	Immersive	VR Immersion	VR Immersion	VR Immersion	Νο
Follow Up	Additional Material	For teachers and parents	Νο	Yes	Νο
	Future Presentations	Νο	Νο	Yes	Νο
	Future proof	Yes	Yes	Yes	Limited
	Impact Tracking	Yes - Statistics	Νο	Yes	Yes
Interactivity	Discussion	In Task Prompt	Presenter Prompted	Teacher Prompted	Presenter Prompt
	Variable Paths	Individual choices	Νο	Yes	Νο
	Scenarios?	Yes	Yes	Yes	Verbal scenario
First Impression	Name	Company name different to presentation	Basic but informs audience	Provides insight to the topic	None
	Online Information	Yes - Facilitator info online	Yes, explains project	Yes - For participant and teachers	None
Audience	Demographic	11-18	17+	5-18+	11-18
	Sub Ages?	For full	Useful for	Individual	Minimal

demographic	new drivers	for each age	Differences
		range	

Benchmarking

Category	Feature	Safe4Me	ClassVr	Love For Life	Current PSNI Method
Presentation	Worksheets	Yes	Yes	Yes	No
	Powerpoints	Νο	Νο	Yes	Yes
	Video	Νο	Yes	Yes	No
	Structured Tasks	Yes - Tasks	Yes	Yes	No
	Immersive	No	VR immersion	Νο	No
Follow Up	Additional Material	Yes Extended learning	Yes	Yes	Νο
	Future Presentations	Νο	On other topics	Story builds upon further presentations	No
	Future proof	Yes	Yes	Yes	Limited
	Impact Tracking	Yes	No	Yes - Feedback Forms	Yes
Interactivity	Discussion	In Task Prompt	Teacher/ Class Prompt	Presenter Prompt	Presenter Prompt
	Variable Paths	Group Guided	Group Guided	Yes	No
	Scenarios?	Yes	Yes	Yes - Video Prompted	Verbal scenario
First Impression	Name	Easily Understood	Simple & Effective	Relates to their aims	None
	Online Information	Yes - Facilitator info online	Yes	Yes - for all involved	None
Audience	Demographic	KS2 - Primary	4-18+	6-18	11-18
		l —		1	I A A A A A A A A A A A A A A A A A A A

Sub Ages?	Easily	Individual	Individual	Minimal
	adapted	for each	for each age	Differences
		age range	range	

Project Outlines

The project was pitched to the team as a video for community engagement. We were tasked to create a Virtual Reality video to address the problems of anti-social behaviour in community, especially from the viewpoint of a vulnerable community member. This was to create an interactive presentation to be brought to secondary school pupils across Northern Ireland.

By creating an interactive dynamic approach to community engagement, the aim is to inspire discussion and understanding in the classroom. The aim of the project is to put the participants into the perspective of a vulnerable community member, to show them that sometimes what they do can look and feel very different from another viewpoint.

Alongside the videos, we had to create a package for the presenter to be able to effectively and safely give the presentation. This package was to include; documents, google cardboard headsets and cards to access the video links.

At the first meeting with our community partner we discussed the idea of having videos from both perspectives, the outside anti-social behaviour and the inside vulnerable person. When discussing this idea with our partner, the project fell into shape very quickly. The community partner loved the idea because it gave a strong opportunity to spark discussion within the group of participants.

Project Outlines

When being to breakdown the video ideas, we had to be very mindful of the difference between general antisocial behaviour and an offence that you can be arrested for. We discussed with our community partner the actions that would be considered in the video based on things they frequently have to respond to. They wanted the two videos to both strike very different emotions in the viewers.

The exterior video of the group of teenagers was to be shown to half the class and encourage a discussion about how they had fun and that they were just 'hanging out'.

On the flip was the interior view of the vulnerable community member. This view was to have a much more intense for the viewer. The sounds from the outside video are amplified and the lighting/feel of the video strikes a message to the viewer. The aim of this is to get the participants to discuss amongst the class rather than directed by the presenter.

By creating such a contrast in feelings from the videos, it is to begin to create an understanding for the participants on what seems perfectly normal and safe outside my sound terrifying and dangerous for those who cannot see

what is fully happening

Demographic & Deliverables

To understand how we were going to deliver this project we first had to breakdown who was our target audience. In our briefing document sent to our client we broke our demographic down to two categories as shown below.

Students

The target audience for this project will be secondary school students from Northern Ireland aged between 11-18 years old. Many students within this age range will engage in social activities outside school.

Teaching Staff within Northern Ireland Secondary Schools

Education staff will also be part of our target audience to assure them that the project is easy to instruct and monitor. It also will be important to ensure to the staff that the project is safe for the student's physical and mental well-being. This is one of the reasons why we are including an instruction section in our information leaflet as it will help to guide the teaching staff on how to conduct the 360-video session.

The deliverables from this project were outlined in the brief came as two fold. The project had a two sided outcome; the physical items and then the larger video results. It was broken down like this:

1) - A branded 'All-In-One' package:

- Box Packaging

- Google Cardboard headsets
- QR code cards for video access
- Information leaflets

2) - 360 Videos on anti-social behaviour:

-From the student perspective -From the vulnerable person perspective.

Timeline

Week 1

- Brainstorming ideas for the project
- Online meeting with our community partner and our project manager

Week 2



- Writing the brief for the project
- Benchmarking competitors

Week 3-5

Preparation for the pitch to our community partner, including a variety of design ideas and the creation of media outputs

Week 6

• Pitch to our community partner for final ideas and decisions on the project

Week 7-11

• Using the feedback from the pitch, the final designs and the production of the 360 videos will be created for the final submission of the project





• Upload the project online (Coursework 1b)

Designs

With the brief signed off with the community partner, it was time to move into our design stage of the project. Our design stage worked very differently to that of a normal Science Shop Project Social project.

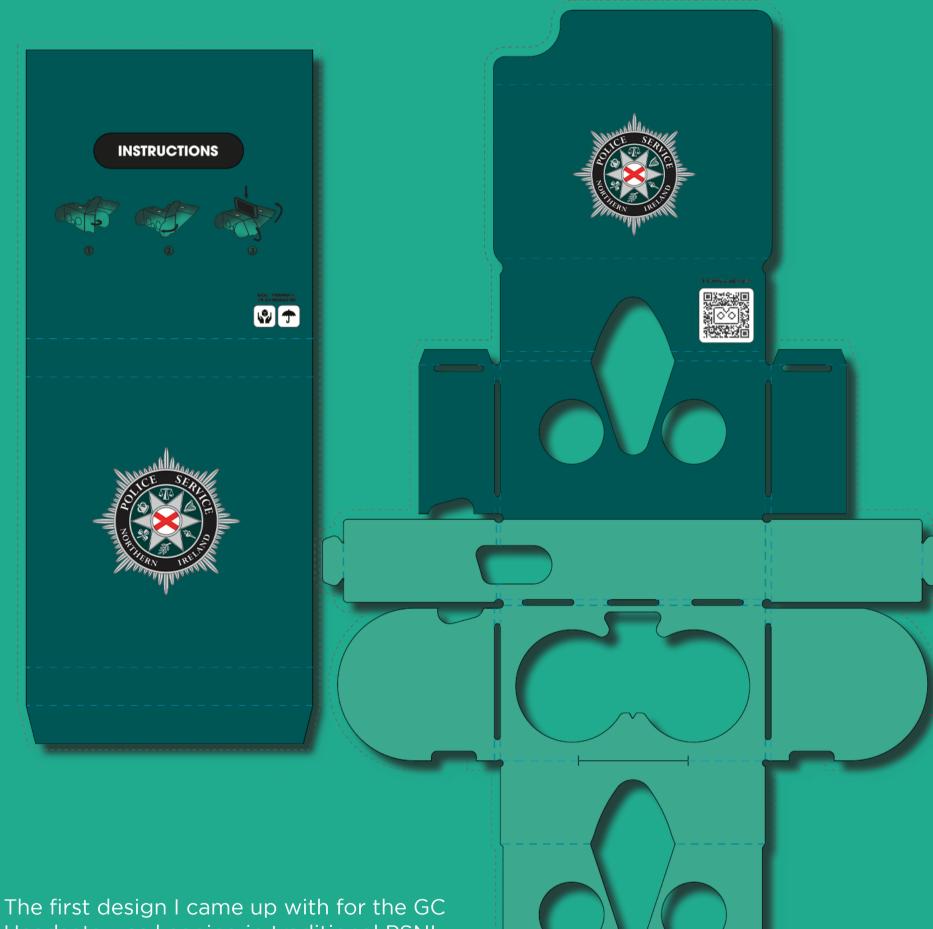
With the PSNI being a strongly established service they had a strict set of brand guidelines to be followed. This set of guidelines restricted a section of the designing a heavily influenced the rest. While Laurence took the current brand guidelines and worked out the documentation such as; the participants worksheet, the instructor/presenter booklet and the cards that display the QR link to the video.

These items had to follow the brand guidelines due to the nature of the items and that guidance existed for them.

On the other side of the physical designing was the Google Cardboard headsets. As this was something the PSNI had never designed before, I got more creative freedom.

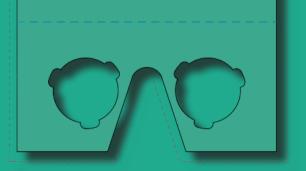
We used the PSNI's current guidelines for inspiration and then added some further twists to make it more appealing to a younger audience.

Design - 1

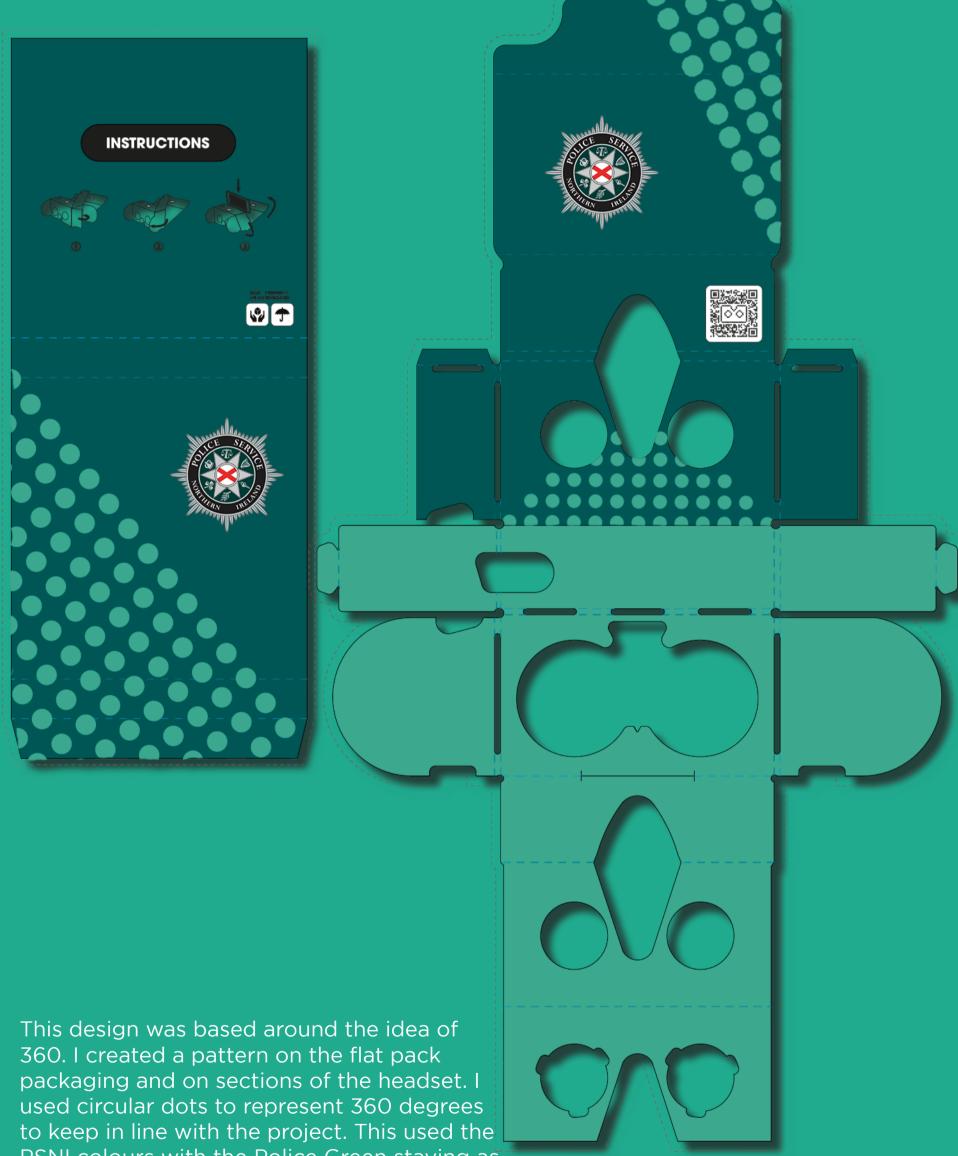


Headsets was keeping in traditional PSNI branding. I used the Police Green (darker)

as the main colour with the Dynamic Green (lighter) being the secondary accent. I kept the design minimal with just the crest on the front of the flat pack box and the front of the headset itself.

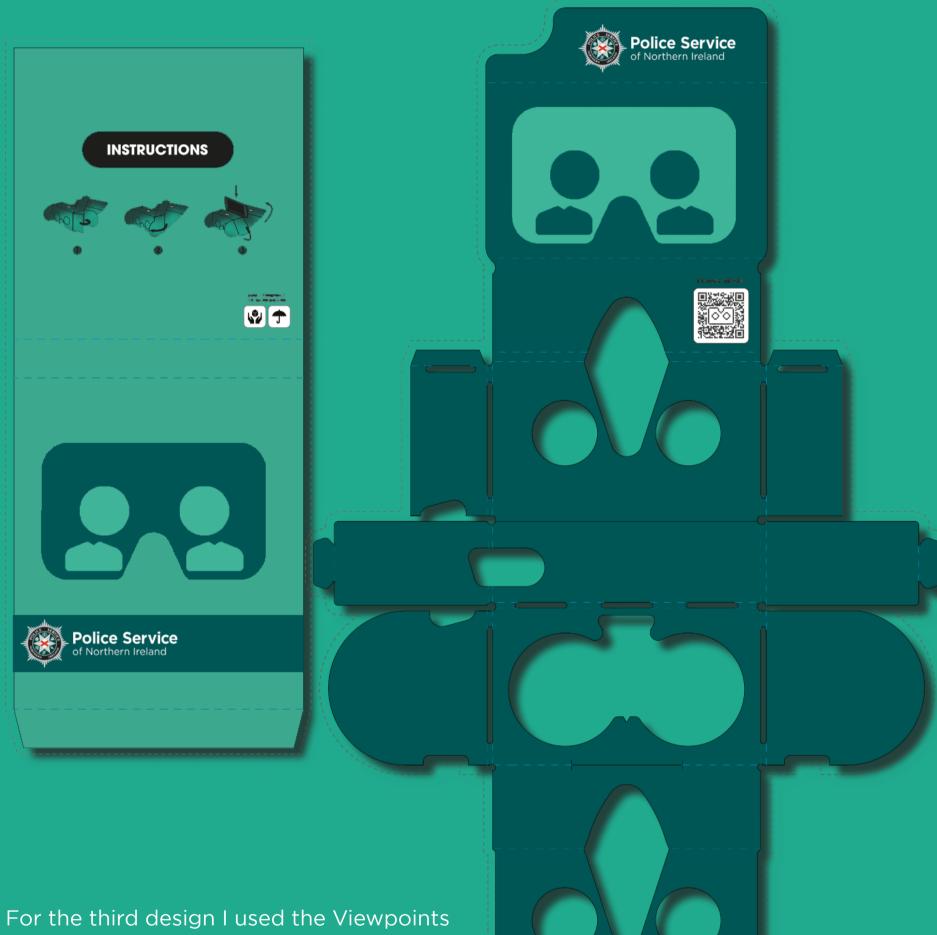


Design - 2



used circular dots to represent 360 degrees to keep in line with the project. This used the PSNI colours with the Police Green staying as the primary colour and the Dynamic Green playing a secondary role. I used the PSNI crest again to keep the project aligned with the PSNI

Design - 3



logo Laurence created. This logo took the Google Cardboard icon and made the dots

into two people discussing. This kept our idea of discussion and the project being about seeing things from other viewpoints. This logo fit onto the front of the headset but also on the front of the box. I inverted the design, using the light dynamic green with a dark green logo for the flat pack and then the dark green with a light logo for the headset.

I used the Police logo rather than just the crest to complete the design.



Storyboards

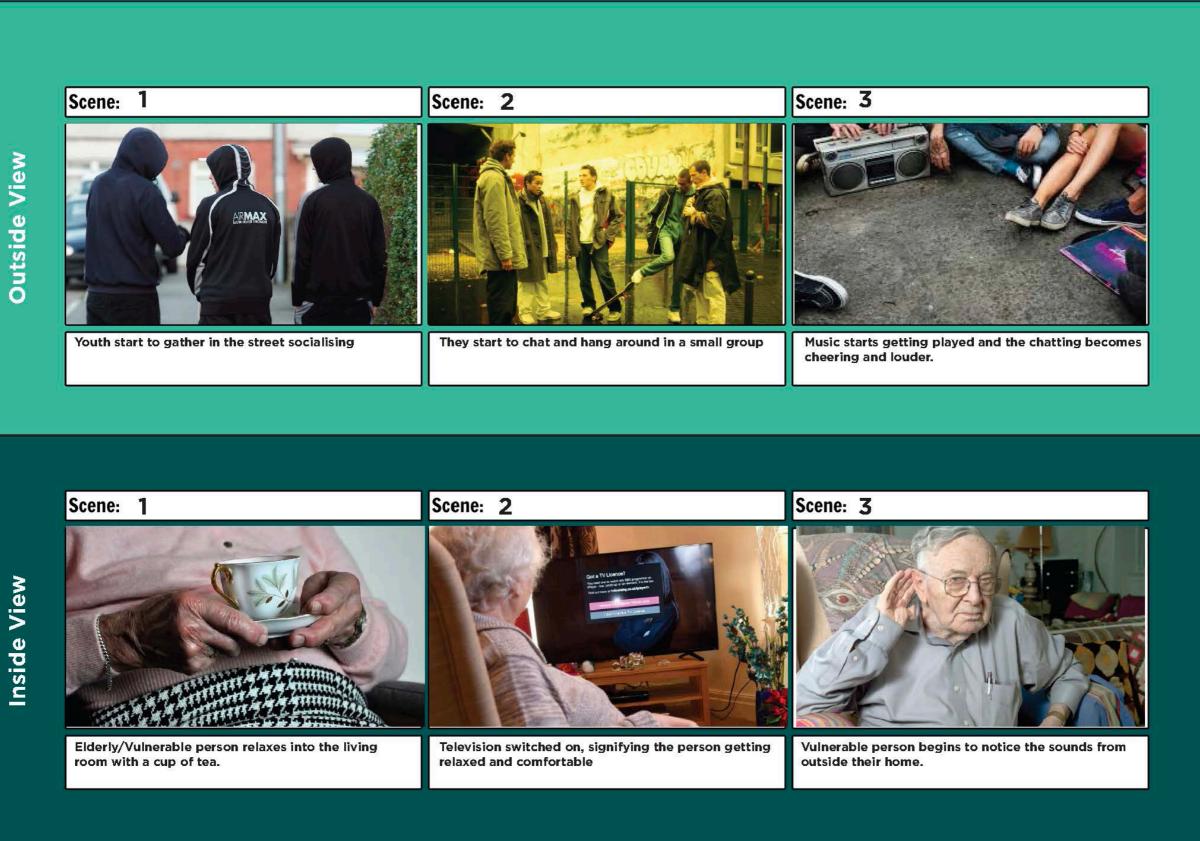
For the video segment we had to create storyboards to plan out what was needing shot. With the video being a 360degree video the storyboarding would typically take the shape of a 360 storyboard. This style gives the user an idea of what all would be visible in the shot at any one time. I decided to go for a normal linear storyboard for a few reasons; I thought that using a 360 storyboard complicated the design more than it needed to be, and also that due to our participants focusing on one section of the video and using the 360 for immersive properties. It would be easier to understand our storyboards if they were in a linear format with the scene showing the point of focus.

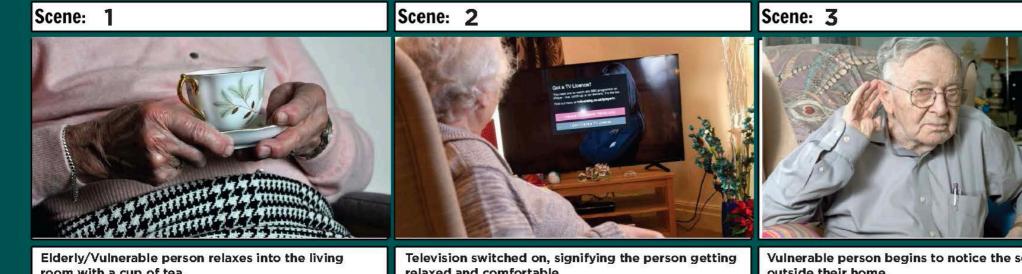
Our video project has two videos; an external shot of the anti-social behaviour and an internal shot of the vulnerable community member. We had two options for each of the two videos based on the POV of the camera.

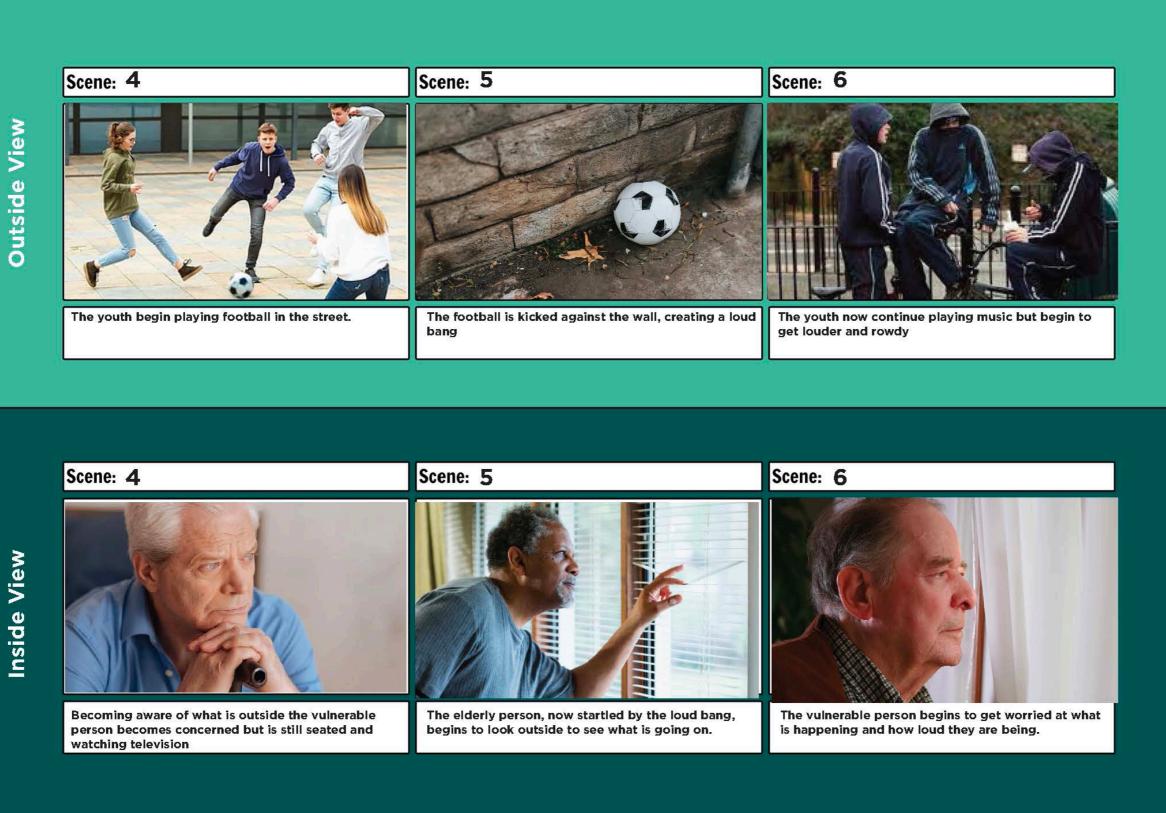
We split the storyboards so that we took an interior and an exterior each to cover the POV.

I took the POV of the camera being in the middle of the group and they act around the camera and the POV of the camera being in the living room for the vulnerable person.

When creating the storyboards, the external shot runs along the top with the internal below to show what is happening at the same time.











Outside View



The elderly person begins to panic and watch their every move due to the fireworks being played with

The elderly person gets upset and distressed over the explosions and doesn't know what to do

The elderly person still visibly upset sits down and is shaking in fear at the events



Pitch

On 24th November 2022 we pitched our design and storyboards to the community partner. The pitch was held on the Belfast campus. Myself and Laurence brought our presentation and a printed copy of the pitch and talked through each of our ideas with the our partner.

This meeting was an extremely important turning point for our project. This was the moment that the path our production was going down was decided.

During our pitch they liked our use of the PSNI colours and the style of the documents.

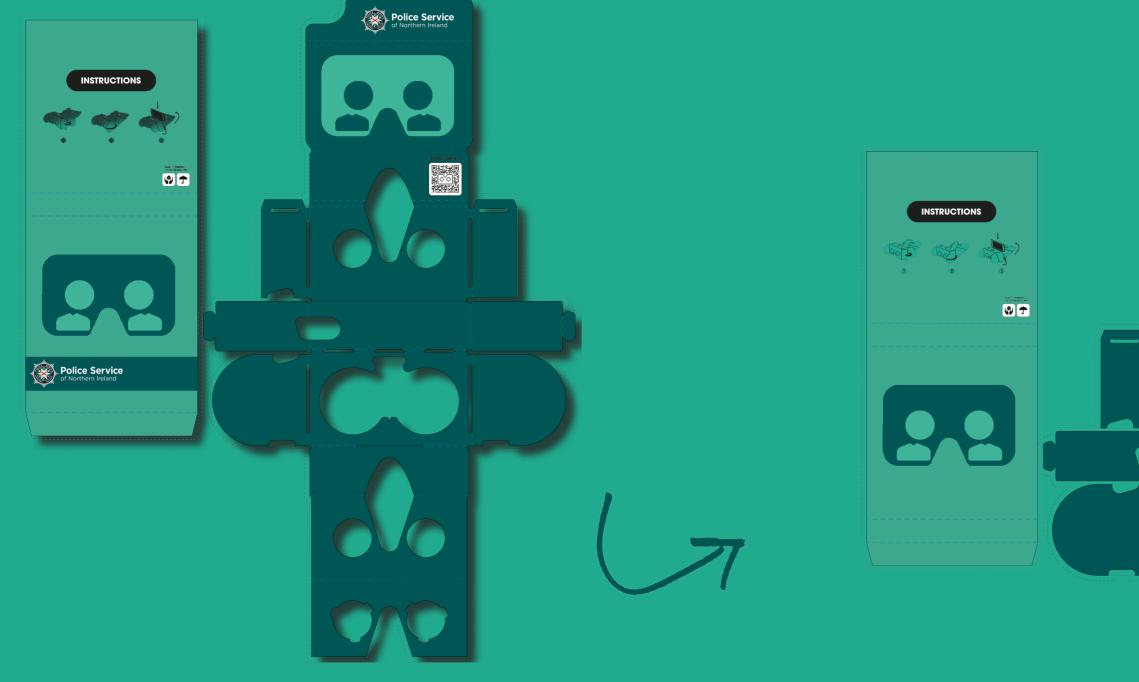
They had questions about how our project would continue which we could answer. They had some suggestions for further additions to the documentation such as adding more questions.

A large portion of our pitch discussion was the track our videos would go down. We discussed the features the ASB video would have and settled on: loud music, cheering, a football banging, and a glass bottle being smashed. These features allowed for dramatic noises without incriminating the teenagers

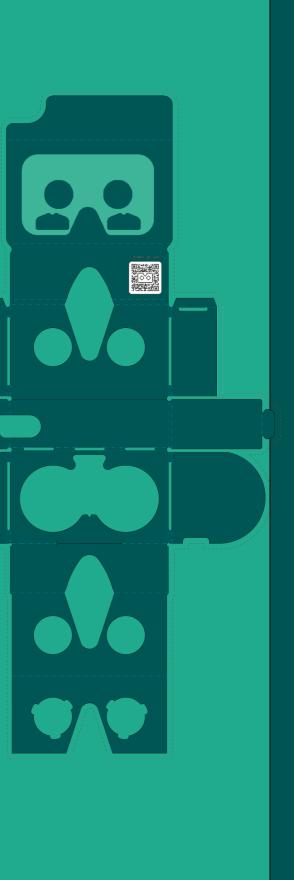
For the videos they preferred the POV

of in the group and in the room as this allowed for the viewer to place themselves in the scene.

Pitch - Changes



A change they asked was to remove the PSNI branding from the Google Cardboard design. They wanted to keep the cardboard headset just Viewpoints branded to keep the Police aspect to a minimum. They asked for some document additions, this was covered by Laurence while I worked on the Cardboard.



Pitch - Feedback



Claire Mulrone The pitch was terrific.

Allwyn spoke to me after and was very impressed. He's very keen to get this developed as he has ambitions to make your creative solution a vehicle to tackle lots of policing issues in the community. He also remarked that your delivery of the pitch was excellent and you are both very confident presenters.

•••

They were delighted with what you developed as its well beyond the brief, you have exceeded their expectations, they're are impressed with packaging and attention to detail.

Many congratulations you both nailed this. Claire



Adrian Hickey, Senior Lecturer in Interactive Media Wow. Some great feedback here...

Well done.

Location Scout

To keep the filming of this video secure and in-line with PSNI security policies, it was best to film the videos on PSNI Properties. The first location we scouted with our community partner was PSNI Garnerville. The training college has spacious grounds and we viewed a few areas we could pose as our outside location. We found two locations that we could use on our night of filming.



The above location we held as a backup for our outside location. The location to the right was our selected location, we felt it gave the look of a small house or potential sheltered accommodation.





The location on the left is a training mock-up house. This was our provided location for our internal shots. This location was secure, flexible in how it was dressed and was the perfect location for our shoot.

Pre-Production

When it came to preparing for the filming days we gathered our equipment.

For filming the videos we used the Insta360 Pro2. We picked this camera due to its high quality features and its professional outcomes.

Having used this camera throughout my placement I was comfortable in using it and how the 360 video process works. I had used the camera and its accompanying software thoroughly so I was able to guide the processes and fill Laurence in on the system.

Using the Insta360 Pro2 gave us more in-depth control of our shot and settings to get the best outcomes.

We filming our takes we decided to opt for a one take approach. This came from two main factors: the complications of 360 cuts and the short length of the videos.

For the outside clips we felt that if we let the actors do full runs rather than breaking it up as it would flow more fluidly.





I gathered glass bottles together for the outside shoot and along with the community partner gathered props for the internal shoot.

The production started very quickly after our pitch meeting. We had two days of filming for our two videos.

Our first day of filming was on Monday 5th December at Garnerville. We arrived at 15:30pm to begin setting up our scene before the actors arrived. We had chose the location we scouted beforehand and began to set up our cameras.

As we set up the cameras the light began to drop very rapidly, as the actors from Lurgan College arrive. We began our camera checks and realised that the light dropping so fast meant our location was no longer suitable.

We looked around the building we were using and found that the front of the building worked better than the back of the building as there was a street light. After a very quick set change, we were able to brief our actors on their role.

The teenagers from Lurgan College really got into their role and did exactly what was asked.









When we finished filming on the Monday evening, we had three days before our next filming date.

To ensure we got the correct reaction to the behaviour happening outside we had to have the elderly actor react to the same noises.

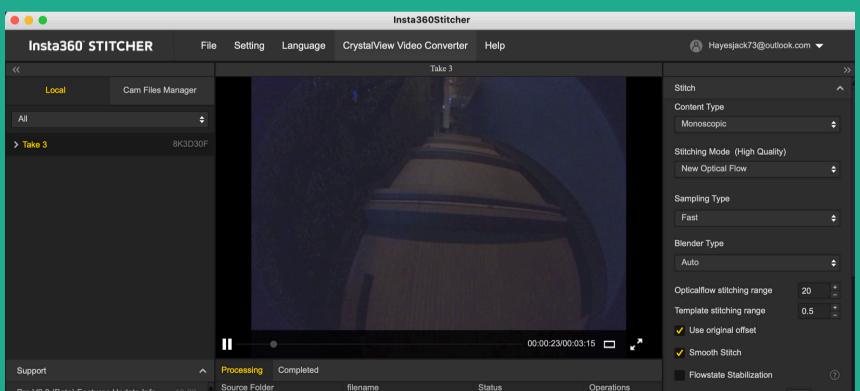
In the three days between filming I processed the videos so that we could choose the best take of the video. After watching the previews we decided the third take was the best of the takes.

To process the 360 footage, I had to take the files from each lens and the meta-data from the main SD card and place it into one folder

I took the files from the third take and begin the stitching process. For stitching I used Insta360's Stitcher software. Using the software designed by the camera's makers gave us the best possible stitch for our video. After selecting the settings I set the video to stitch.

Once exported from the stitcher, I imported the stitched video into Adobe Premier Pro. By importing the video into premier pro I was able to make basic colour adjustments and trim the video to the correct length. I then exported the video as a video for VR from premier to keep the meta-data of a 360 video.

< > Take 3	:≡ ≎		b 🖉 🔍
	Take 3		4
Name	 Date Modified 	Size	Kind
origin_1_lrv.mp4	5 December 2022 at 16:43	134.2 MB	MPEG-4 movie
🔀 origin_1.mp4	5 December 2022 at 17:44	2.94 GB	MPEG-4 movie
origin_2_Irv.mp4	5 December 2022 at 16:43	135 MB	MPEG-4 movie
origin_2.mp4	5 December 2022 at 17:44	2.94 GB	MPEG-4 movie
origin_3_Irv.mp4	5 December 2022 at 16:43	135.5 MB	MPEG-4 movie
origin_3.mp4	5 December 2022 at 17:44	2.94 GB	MPEG-4 movie
origin_4_Irv.mp4	5 December 2022 at 16:43	131.7 MB	MPEG-4 movie
origin_4.mp4	5 December 2022 at 17:44	2.94 GB	MPEG-4 movie
origin_5_Irv.mp4	5 December 2022 at 16:43	131.2 MB	MPEG-4 movie
origin_5.mp4	5 December 2022 at 17:44	2.94 GB	MPEG-4 movie
origin_6_Irv.mp4	5 December 2022 at 16:43	151.6 MB	MPEG-4 movie
origin_6.mp4	5 December 2022 at 17:44	2.94 GB	MPEG-4 movie
preview.mp4	5 December 2022 at 16:43	86.5 MB	MPEG-4 movie
pro.prj	5 December 2022 at 16:40	4 KB	Document



Pro V2.0 (Beta) Features Update Info	Source Folder	filename	Status	Operations	✓ Use Hardware Decoding 6 🗢	
Zenith Optimization					Use Hardware Encoding (?)	
Super Resolution Photo Stitching					Software encoding speed	
Requirements on Computer Configurati					Fastest	¢
Repair Video's Frame Rate Difference					Use nadir logo	0
Pro Win/Mac 1.3.0, Pro iOS/Android 1						
Firmware Upgrade/Downgrade Tutorial					Reference Frame	^
Pro Storage Card Requirement and Ch	Start All				- 00:01:37.65	+ 🕓

On our second day of filming, Friday 8th December, we filmed the internal shots. We arrived at 14:00pm to dress the location for our shoot.

Due to our set being a room used for training including dog training, it required a longer preparation time.

We arrived with our community partners and began to clean and prepare the room.

At 16:30pm our actor arrived and we began to talk through our scene. We talked our actor through what we expected and show her around the set.

To ensure genuine reactions to what the other video said was happening outside, I played the external video's audio through a speaker. By placing a speaker on the outside window sill it allowed the audio to sound like it was actually happening outside. This then allowed for our actor to react in real time to the sounds.

We had to add more light into the scene once we got the actor in place. Due to the scene being a 360 shot, I placed the LED light directly below the camera





therefore keeping it out of the main focus of the shot.



Viewpoints Post-Production

When filming our internal shot, I checked the footage to see if we were happy with the shot. When watching back the footage, there was an extremely noticeable interference with the audio. We watched back multiple takes and all of them had this interference.

We worked to try and remove it and to find the cause and after trying everything we could think of we managed to get the interference reduced as much as possible. The sound was still there but that would be repaired in post.

To begin post-production, I took our best take and began the stitching process in Insta360 Stitcher. Once stitched I imported the footage into Premier Pro and began to reduce the interference on the audio.

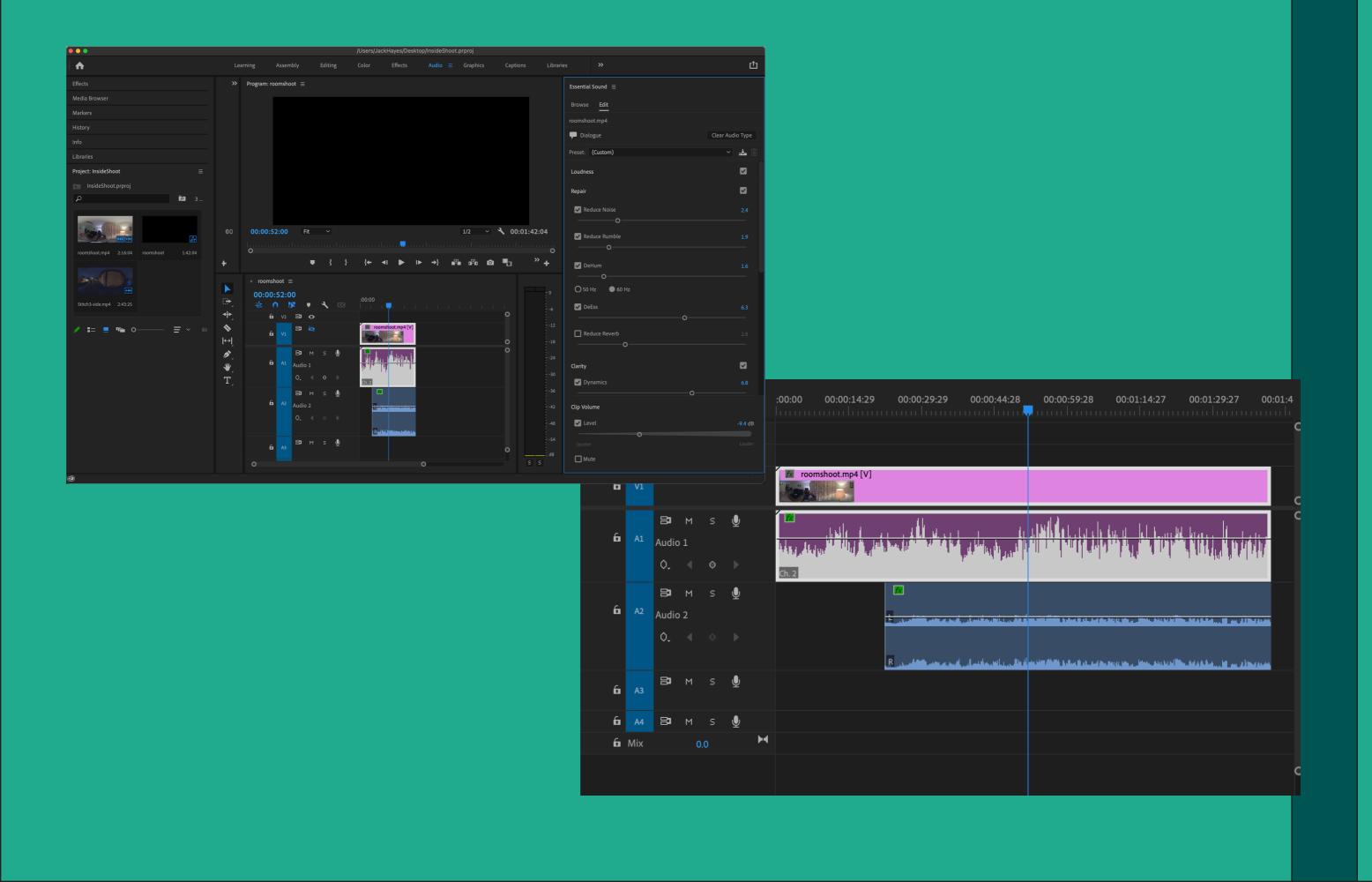
I worked within the Audio window, in the repair section. I worked until I got the audio at a workable level.

To give the complete audio immersion we wanted, I added the original external audio track over the internal shoot at a low volume. By doing this the audio immersion is increased and the focus is on the

distress generated by the noise.

Images of the post production process on the next page.

Post-Production



Outcome Screenshot



The videos both have no faded slow ending. They end with a fairly abrupt stop to keep the emotions sparked in the viewer. If the video had a slow ending or a resolved ending, the purpose of discussion is lost.

The outcome of the videos was two 360 ASB videos. The external video came in at 1 minute 34 seconds. The internal video came in at 1 minute 42 seconds. Keeping the videos short keeps the viewer engaged and interested.



Project Reflection

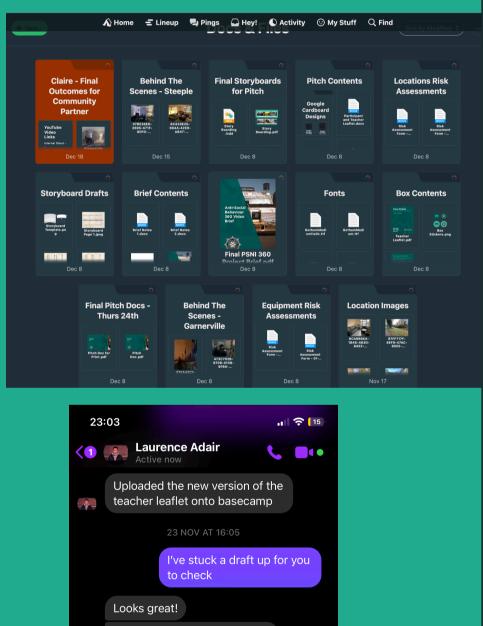
Working in group of two allowed for a lot of the project spread to be reduced. By working in a pair the project was split evenly and it prevented work being held up or delayed due to a number of people all working. It also allowed for our decisions to be made fluidly with only two people discussing the idea it reduced our chance of distraction or not agreeing.

Using Basecamp to share documents made working much more seamless and organised. By having an organised filing system we could work when apart or together just as easily.

With our project having complex aspects at times, having two people sometimes stretched our bandwidth, e.g. when we had our audio interference issues.

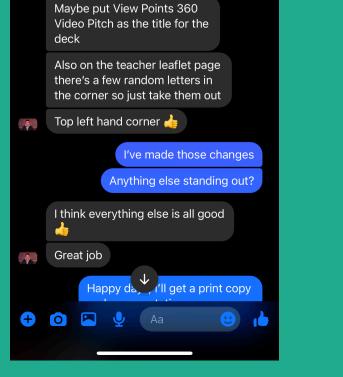
When dividing the work we aimed for each others strong points, Laurence has a strong graphic design ability so he took on the documentation and package contents. Having had previous experience in 360 media and Insta360's products, I took on a more technical role when it came





to the videos.

We used Facebook Messenger to communicate when outside of class. This allowed us to continue working when at home or preparing for set days.



Project Contribution



Laurence

- Presentation Documents
 - Teacher Leaflet
 - Participant Worksheet
 - QR Code Cards
 - Stickers
 - Box Design
- Storyboarding/Pre-production
- Viewpoints Logo Design

Jack

- Pre-production Prep
 - Storyboarding
 - Camera Prep
- Google Cardboard Designs
- 360 Stitching
- Video Editing
- Audio Editing





Partner Feedback



PSNI / University of Ulster 'Viewpoints' Project

20/12/22

Re: Laurence Adair and Jack Hayes

Project Outcomes

It is not often that when you share a vision with someone, they not only get it, but grasp it, run with it, and develop it in the way that Laurence Adair and Jack Hayes have. The original idea that sparked this was simply to use VR and 360 degree filming to challenge perceptions on anti social behaviour in a way that has not previously been attempted by the PSNI. What has been delivered in the final videos is truly unique for the PSNI; the first time such a format has been used. In doing so, a product has been delivered that finds a perfect balance between challenging the ideas of young people with not criminalising them for what is often quite innocent and normal behaviour, whilst maintaining a realistic and authentic feel throughout. The immersive nature of the videos combine different senses to encourage a range of responses and reactions from the viewer, which will be the perfect foundation for discussion and debate with a view to changing mind-sets going forward. 'Viewpoints' encourages just that: to see a comparatively normal situation from someone else's point of view.

The initial target audience for these videos will be school classrooms and youth groups. Having shared the concept of our project with partner schools, there is already a great deal of excitement about what is a ground breaking means of engagement and a real step forward in the community safety education piece. I cannot commend Laurence and Jack highly enough for the way in which they have developed this vision to deliver a truly remarkable end product.

Working as a team

From the first meeting with Jack Hayes and Laurence Adair I was struck by their attention to detail. Their ability to retain information accurately and then use it to brain storm improvements and ideas was impressive throughout. They have kept us updated on every step of the process, asking pertinent questions when needed yet more often than not bringing answers and solutions rather than problems.

Working under pressure is often an overlooked skill these days, but one which Jack and Lawrence displayed on several occasions. Whether it was camera angles and last minute unforeseen line of sight issues, or more technical problems with interference interrupting the recording, their response was always calm, measured, and ultimately successful. When working alongside police officers and school children, they had an ability to communicate clearly with both in a way that gave professional reassurance to us, yet maintained a relaxed and comfortable environment for our school age role actors to work in. Jack and Laurence have been patient with changes that we have interjected with, attentive when there have been a multitude of questions, and crucially reliable when it has come to deadlines, meetings or responses.

What has impressed me most however is how two university students, with no operational policing experience, have so expertly taken hold of a vision, ensured they understood it, and developed it to completion whilst always maintaining that firm sense of realism and authenticity, never straying from our aims and objectives.

Partner Feedback

This e-mail has been marked OFFICIAL [PUBLIC];

Morning Laurence and Jack,

I am coming to the end of my last night shift before a nice 2 weeks off for Christmas, and can honestly say that the whole office is now intrigued by the videos after hearing my reaction as I watched them! They're incredible! We can't thank you enough for your work on these. I would say it's exactly what I'd hoped for- but it's more than that.

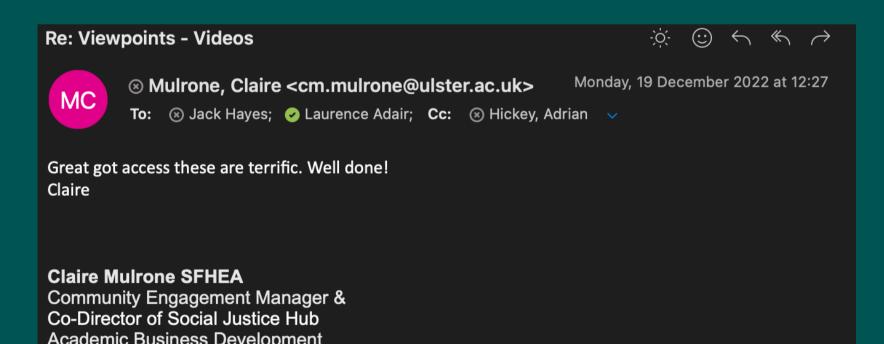
I have attached a feedback page covering both topics, and I have tried to do your work justice in doing so. If you need anything further, or any of it expanded just let me know and I will gladly do so.

Adrian and Claire- thank you for sharing this vision and being so supportive and accommodating in so quickly incorporating this project into your module. It was so hugely encouraging to be met with such support in what I have no doubt will be a game changer with our engagement around anti social behaviour.

I hope you all have a wonderful and restful Christmas. I will be away from emails for 15 days now but am available on the mobile if anything else is needed before January.

Many thanks again,

Michael



M: 07940656299 E: cm.mulrone@ulster.ac.uk

Getting such positive feedback from our community partner at the end of this project gave us such a sense of pride in our work. After long hours and lot of brainpower to be told the work we have done has gone above and beyond what they were expecting really ends this project on a high.

Time Logs.

Meetings/Client Communication

• 6hrs

Research

• 10hrs

Benchmarking

• 15hrs

Brief

• 20hrs

Design Concepts

• 6hrs

Storyboarding

• 8hrs

Pitch

• 8hrs preparation (2hrs meeting)

Pre-production

• 12hrs

Production



Post-Production



Production Logs



