Lighting Practice

TE3078 Assignment 2

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Contents

Overview

In this report I will discuss the techniques and equipment I used to light certain scenarios for camera. I aim to use some of the knowledge I gained in Assignment 1 for this Assignment.

All scenes were filmed on a Sony NX3 atop a Manfrotto Tripod at Kings Church Blackpool. My crew for the day consisted of Declan Taylor, Alex Booth and myself. Alex was my subject and Declan helped me set up the equipment and arrange the set according to my direction. I set up all of the camera's settings and framed up. I angled all of the lights, applied the gels and moved barn doors etc.

Research

I have already done gathered some primary and secondary research for my Assignment 1 journal entries which I can apply to this assignment. I can use thoughts from #1[1], Video in low-light to help me consider where my natural/ motivated light would be coming from. I can also use #4[2], Lighting technologies to help me pick the correct fixtures. I will also be bringing a light meter along with me so my investigation in #5[3] will help.

Film Scene have a good video[4] doing a very similar thing. However, in their video, the detail of the background outside is not clearly visible, it is still very over exposed. Also, the set is extremely messy and dangerous with several high power cables trailing all over the floor! Creative Cow also have an article[5] detailing some key points for a shoot against a large window.

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[1] Nelson, L. (2015) JOURNAL ENTRY 1 -VIDEO IN LOW LIGHT ENVIRONMENTS. Available at: http://lukenelson.uk/TE3078/TE3078%20-%20Assignment%201%20-%20Reflective%20Journal%201.pdf (Accessed: 11 December 2015).

[2] Nelson, L. (2015) TE3078 -ASSIGNMENT 1 -REFLECTIVE JOURNAL JOURNAL ENTRY 4 JOURNAL ENTRY 4 -LIGHTING TECHNOLOGIES. Available at: http://lukenelson.uk/TE3078/TE3078%20-%20Assignment%201%20-%20Reflective%20Journal%204.pdf (Accessed: 11 December 2015).

[3] Nelson, L. (2015) TE3078 -ASSIGNMENT 1 -REFLECTIVE JOURNAL JOURNAL ENTRY 5 JOURNAL ENTRY 5 -USING A LIGHT METER. Available at: http://lukenelson.uk/TE3078/TE3078%20-%20Assignment%201%20-%20Reflective%20Journal%205.pdf (Accessed: 11 December 2015).

[4] NextWaveDV (2013) Film scene - shooting a video interview against a window. Available at: https://www.youtube.com/watch?v=AWHQOXWf0gU (Accessed: 29 December 2015).

[5] CreativeCOW (no date) Available at: https://forums.creativecow.net/thread/47/859943 (Accessed: 29 December 2015).

Scenario 1 - Drama

Choice/Description

For my drama setting, I chose scenario D.

> *Drama Scene. An actor is sat on a sofa or armchair in a dark room only partially illuminated by the low level warm glow of an in shot table/standard lamp and other in shot practicals. They are watching a television and we see the TV set from the back, or maybe it is just out of shot. Their face is illuminated by the light of the television screen. The actor should be the focus of this scene, there needs to be a good level of contrast between them and their surroundings. There should be at least three shot types here, Mid Shot, MCU and BCU, also there should be some synchronised lighting change as perhaps an in shot lamp is switched on and the television is switched on/off.*

I chose this scene by process of elimination. I discounted B as I did not want to shoot outside. I also discounted C as I felt that having both warm and cool light correctly exposed would be very difficult in a short amount of time. I then discounted A as I felt that the synchronised lighting changes would not be possible with a small crew. I was happy with option D as I felt that it could be achieved well in the necessary shots. I also felt confident that I could pul of the synchronised lighting changes with a small crew.

Above I have highlighted the parts of the brief that I found most important or particular choices that I chose. I brought a paper copy of the brief along to shooting and made sure that I could tick each of these points off before I finished, below I show how I completed the objectives.

Objective	✓	How completed
Armchair	✓	• Used an armchair
Warm glow of in shot lamp	✓	• Used a practical lamp • Used a warm gel to emphasise warmth • White balanced slightly cool to emphasise warmth
TV in or just out of shot	✓	• Tried TV in shot • Light simulates TV • Would add audio to reinforce TV illusion
Face illuminated	✓	• Face illuminated mainly by lamp • TV also illuminates face
Mid Shot, MCU, BCU	✓	• All required shot types completed • Two MCU options shot

Objective	✓	How completed
TV switched on/off	✓	• Scene starts with TV off

Equipment

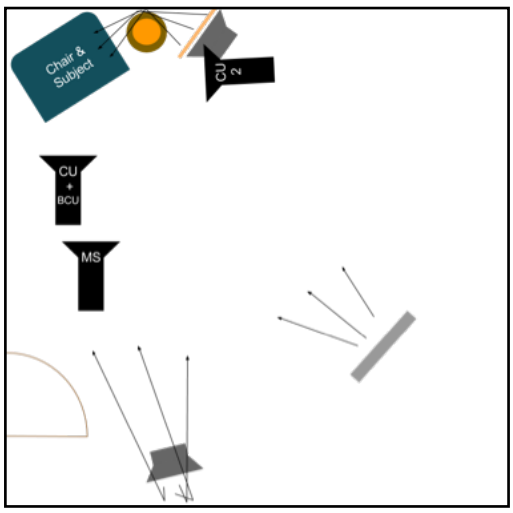
For this scene, I used the following equipment:

- TecPro LED Panel
- LED light kit X2
  - Warm Gel
- Desk Lamp
- Sekonic Light Meter

For the main sources of illumination I used the LED light kits. I had never used these before, however Declan, Alex and Toby from Media Factory Stores recommended them. They are surprisingly bright for their size. They also come with a set of hard plastic gels which are easy to apply. To simulate the TV screen, I used a TecPro LED panel. The variable dial allowed me to finely control the panel's brightness much better than the + - buttons on the LED kits. Declan provided the in-shot practical, a 60w lamp with a thin lampshade.

Location/Floor Plan/Setup

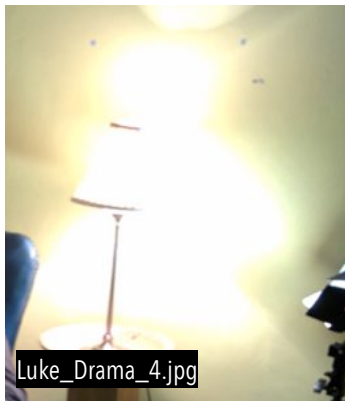
This scene was filmed in a small downstairs room which had it's single window boarded up. This allowed us to completely black out the room. I then brought an armchair down from another room and set up in the corner.



The floor plan above shows the setup. The armchair was angled in the corner facing an imaginary TV in the opposite corner. I did bring a TV down (as seen in Luke_Drama_1.jpg) to try and get it in shot or to use it for extra light, however it did not have a stand and was cumbersome to manoeuvre. I then set up a TecPro panel in place of the TV and left this switched off.


Luke_Drama_6.jpg

I placed the practical in shot to provide the warm glow, however, it was not bright enough to light up the other side of Alex's face. To brighten the whole scene I used one of the LED light kits facing the wall/roof behind the camera as seen in Luke_Drama_1.jpg. I had used this method in previous shoots to create a very defuse light reflecting back at the scene. However, the light from the practical was very weak, even with the LED kit on it's lowest setting. To boost the effect of a practical, I used the other LED light kit with a warm gel. I bounced the LED light kit off the wall behind the practical, taking advantage of the light patch on the wall viewers would be expecting to see. The effect of this can be seen in Luke_Drama_2.jpg. As I had two lights both on dim, I decided to increase the brightness of the whole scene to reduce the noise on the camera.


Luke_Drama_4.jpg

I then used the light meter to expose the scene and white balanced to the dark side of Alex's face. This included a bit of the warm light of the white paper, however it was cool enough to make the final result have a warm glow. Once I had the camera set up and recording, I begun to simulate the TV. I used the variable dial to create a flickering illusion. This simulated the effect of a TV screen being left ton while Alex was pretending to sleep. The effect is particularly effective on closer shots as you can see the shadows it creates in more detail. You can see the effect from both angles in Luke_Drama_EFFECT.mp4 or online here: https://youtu.be/whEDxkWcG4w

Risk Assessment

Risk Description	Likelihood	Impact	Mitigation Plan/Control
Trips & falls	Low	Low	• Battery powered equipment, minimal cables. • Any necessary cables away from walkways or clearly marked. • Walkways kept clear.
Trips & falls in dark	Medium	Low	• All above. • Fluorescent work light to remain on unless filming.
Electrical - Shocks/burns from equipment. Fire.	Low	High	• Most equipment safety checked by stores. • Most equipment LED, therefore no heat is generated.
Fire	Low	High	• Working smoke detector and alarm system on site. • Fire exits clearly marked and kept clear as much as possible.

There were only a few low likelihood risks meaning that we were in for a safe shoot. The highest risk was tripping and falling in the dark which was minimised by working in full light for as much of the shot as possible. The shoot ran smoothly and there were no accidents.

Video/URL

You can access the video here: https://youtu.be/Ap54k21PX8I

The video file is also accessible as DRAMA.mp4. This video is a combination of shots C, D, E & F which have been trimmed to remove pre and post roll. For the original files, see the appendices section.

Evaluation

I was quite happy with the result of my drama scene, some faint TV chatter would make it even more convincing. I was especially pleased with my simulation of the TV using the TecPro panel. The brief reminded me of a scene from Toy Story 2[6] which has a similar effect to what I recreated. My TV is a bit more active and noticeable than that in the film.

My favourite shot is Luke_Drama_E.mp4, the MCU form a different angle. I liked the fact that the practical was in shot as well as the subject, however, I would have

[6] Ultimate Woody fan (2015) Toy story 2 woody is trying to get his arm back. Available at: https://www.youtube.com/watch?v=AMnNyjENA4o (Accessed: 29 December 2015).

pulled slightly further away had I done the shot again. I felt that bouncing the LED light kit off the wall behind the practical and disguising it on the wall worked well. I did notice however that in Luke_Drama_F.mp4 you can see the square shape of the panel in Alex's glasses' reflection rather than the actual shape of the practical.

The use of battery powered LED equipment worked well and I feel that the benefits outweighed the drawbacks. Benefits include a cable-free workspace, variable brightness without colour change and a high maximum brightness. Drawbacks include a very cool white balance and specular light meaning harsh shadows.

I feel that I have targeted the brief correctly and created a good piece of work. If I were to film it again I would do much the same but take the points above into consideration.

Scenario 2 - Technical

Choice/Description

For my technical setting, I chose scenario A.

> *Interview setting. A mid shot of a person sat in front of a **large feature window** in bright daylight. The person's face is properly exposed and modelled and the scene outside the window should be clearly detailed and correctly exposed with a good tonal range. White balance must be consistent across the entire image. The scene outside the window should be chosen to add to the shot rather than be a distraction (this could be an interview where the background scene puts the interviewee in context)*

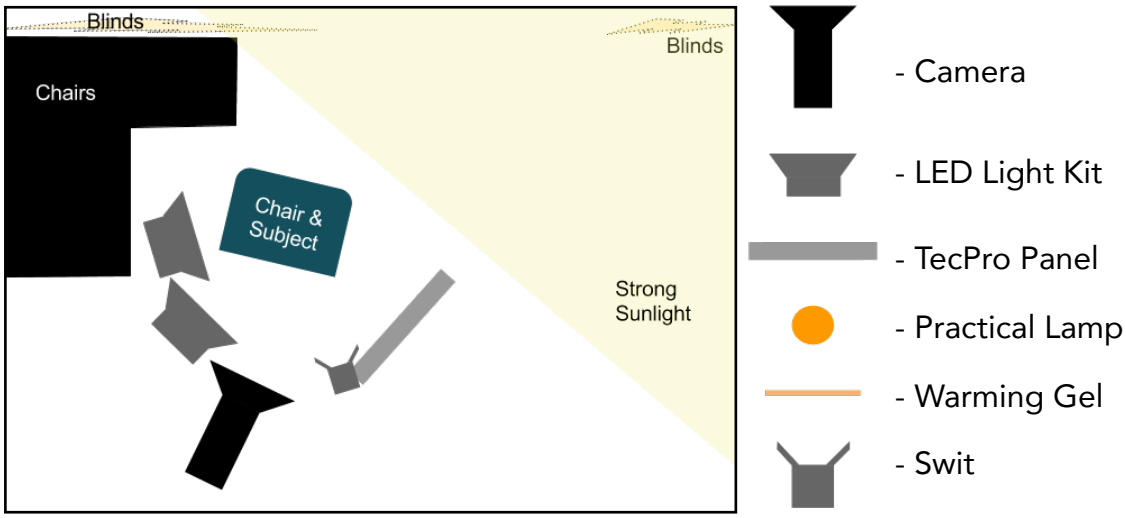
I chose this scene as It used the least amount of lighting equipment. Having to carry multiple sets of different types of lights would not have been feasible with a small crew. Also, as I knew of a suitable large window, option A seemed the most appealing and viable.

Again, I have highlighted the parts of the brief that I found most important. Again, I ticked off each of these points off before I finished to make sure I had completed these objectives, below I discuss how.

Objective	✓	How completed
Interview Setting	✓	• Set Alex at $^3/_4$ profile • Asked questions • Gave Alex lav mic 
Large feature window	✓	• One of the largest windows in the building
Bright daylight	✓	• Filmed just before noon • Can see effect of light in Luke_Technical_10.jpg
Face properly exposed	✓	• 70% zebras on face (See Luke_Technical_4.jpg)
Outside properly exposed	✓	• 70% zebras on roofs (See Luke_Technical_4.jpg)
Outside clearly detailed	✓	• Can see detail of roof tiles in Luke_Technical_Snapshot1.png
Outside not distracting	✓	• Scene gives shape and depth • No text • Not interesting • No movement (except for the occasional bird)
Outside provides context	✓	• Talking about Blackpool, one would assume the background is in Blackpool.

Unfortunately a couple of these points did not work as well as they could have. Despite setting Alex down at an angle to the camera and standing behind the

TecPro panel (see floor plan), I gave him a swivel stool to sit on. This meant that he moved around. The final shot is also out of focus. Despite the viewfinder showing peaking on Alex's face (Luke_Technical_4.jpg), you can clearly see in Luke_Technical_Snapshot1.png that Alex is out of focus. What I think happened is that becasue I set the camera quite close and used ND filters, the aperture was



open wide and thus the camera had a shallow depth of field. Alex must have then leaned or swivelled out of focus once I moved over to ask the questions. I did not notice this until the edit. To counteract this in the future, an outboard display might be a good idea. With the NX3's, you can use an iPad as a remote viewfinder.

Equipment

For this scene, I used the following equipment:

- TecPro LED Panel
- LED light kit X2
- Swit camera top light
- NX3's built in LED light

• Sekonic Light Meter


Luke_Technical_Snapshot1.png

I first used the light meter to measure the light coming in from the window and used the settings to set the camera. I had to adjust for using ND2. The TecPro panel served as my key light as it is very bright. I set this first using the Zebras on the camera to match the light on Alex's face to outside.


Back Window.png

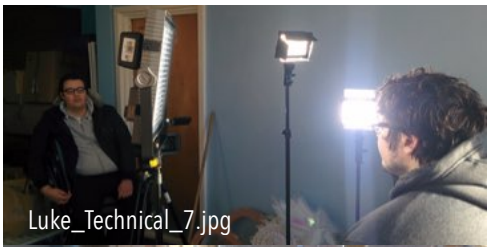

Luke_Technical_11.jpg

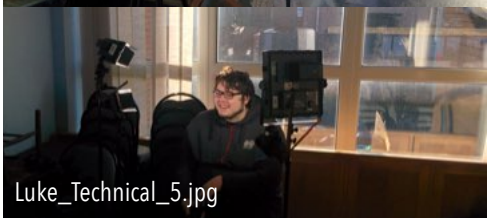
Location/Floor Plan/Setup


Luke_Technical_1.jpg

My technical scene was filmed in the upstairs corridor in the back of the building. I chose this location as it had a large windows as requested by the brief but also had good access and a space to set up in. We only had to move a few chairs to get in a good position. The images above show this.

The large area of yellow on the floor plan above (Luke_Technical_FloorPlan.png) shows where the direct sunlight fell. It was very strong and caused a big problem for me as over the course of filming as it kept moving! You can can see the very bright patch of light on Alex's face in the image to the right (Luke_Technical_1.jpg). This was causing havoc with the camera becasue it was even brighter than the light coming in from outside. I had to move Alex a distance away from the window to sit him out of the light however as the sun moved round, it kept moving round onto the side of his face. It did, however, act as a great


Luke_Technical_7.jpg


Luke_Technical_5.jpg

natural backlight.

For my key light, I went for the TecPro LED panel. The large panel creates a diffuse but powerful light. For fill, I used two LED light kits. One was positioned at about eye level and the other was higher aiming down from above. Then for modelling, I used the NX3's light to slightly remove some of the front on shadows and used the SWIT to create more side-on shadows such as on Alex's clothing, from his hair and especially his cheeks as seen in the snapshot to the right, Luke_Technical_Snapshot1.png.

Risk Assessment

Risk Description	Likelihood	Impact	Mitigation Plan/Control
Trips & falls	Low	Low	• Battery powered equipment, minimal cables. • Any necessary cables away from walkways or clearly marked. • Walkways kept clear.
Stored equipment - Stacked chairs could fall on crew	Low	Low	• Only I moved stacked chairs and used the appropriate equipment - a chair dolly. • Chairs are stacked safely by Kings staff and volunteers • Crew stayed away from chairs if possible.
Electrical - Shocks/burns from equipment. Fire.	Low	High	• Most equipment safety checked by stores. • Most equipment LED, therefore no heat is generated.
Fire	Low	High	• Working smoke detector and alarm system on site. • Fire exits clearly marked and kept clear as much as possible.

There was minimal risk whilst shooting. All equipment battery powered as there was no practical lamp to plug in which meant that there were no trailing cables. All risks were low with only common sense and simple precautions to follow. The shoot ran smoothly and there were no accidents.

Video/URL

You can access the video here: https://youtu.be/5cZzY02UVrg

The video file is also listed as Luke_Technical_A.mp4 in the appendices.

Evaluation

I was fairly happy with my technical shot, apart from the focus issue of course. As mentioned above, in the future I will use my iPad as a remote viewfinder. The larger display should help me get a better view of the scene and hopefully spot details like that before the scene gets recorded. I feel that the location and the outside scene worked well, I could see a longer interview taking place.

Summary/Discussion

I feel that the most valuable research leading up to this assignment was my own research in Assignment 1 and form previous modules. I learned the mistakes and shortfalls then and managed to apply most of my learning to this assignment.

Some secondary research was useful however some was misleading or not suitable. For example, in the Creative Cow article and Film Scene video, they recommend using a HMI source. A HMI source is available from stores, however booking it and transporting it would have been much more difficult for me than booking the LED panels. Therefore, I feel in this situation, the benefits of the LED's outweigh the advice of using a HMI source.

The Creative Cow article also suggests using ND gel to lower the incoming light from the window. This is not viable as the window is very large and the ND from stores comes in small rolls. It would be impossible to stick multiple ND's together without the seam being visible and noticeable.

Bibliography

• CreativeCOW (no date) Available at: https://forums.creativecow.net/thread/47/859943 (Accessed: 29 December 2015).

• HSE and Health and Safety Executive (HSE) (2008) Example risk assessment: Village hall health and safety executive example risk assessment for a village hall. Available at: http://www.hse.gov.uk/risk/casestudies/pdf/villagehall.pdf (Accessed: 8 December 2015).

• Nelson, L. (2015) JOURNAL ENTRY 1 -VIDEO IN LOW LIGHT ENVIRONMENTS. Available at: http://lukenelson.uk/TE3078/Journal_1.pdf (Accessed: 11 December 2015).

• Nelson, L. (2015) TE3078 -ASSIGNMENT 1 -REFLECTIVE JOURNAL JOURNAL ENTRY 4 JOURNAL ENTRY 4 -LIGHTING TECHNOLOGIES. Available at: http://lukenelson.uk/TE3078/Journal_4.pdf (Accessed: 11 December 2015).

• Nelson, L. (2015) TE3078 -ASSIGNMENT 1 -REFLECTIVE JOURNAL JOURNAL ENTRY 5 JOURNAL ENTRY 5 -USING A LIGHT METER. Available at: http://lukenelson.uk/TE3078/Journal_5.pdf (Accessed: 11 December 2015).NextWaveDV (2013) Film scene - shooting a video interview against a window. Available at: https://www.youtube.com/watch?v=AWHQOXWf0gU (Accessed: 29 December 2015).

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• Shaw, M. (2000) Technical Report Writing - A Guide For Students. Available at: https://portal.uclan.ac.uk/bbcswebdav/pid-1618181-dt-content-rid-2517268_1/courses/TE3980_201516_1_9/report_writing_guide%281%29.pdf (Accessed: 21 November 2015).

• Ultimate Woody fan (2015) Toy story 2 woody is trying to get his arm back. Available at: https://www.youtube.com/watch?v=AMnNyjENA4o (Accessed: 29 December 2015).

Appendices

For all of my resources for this assignment, please download the file http://lukenelson.uk/TE3078/A2_Resources.zip (1.13GB). This includes all Snapshots, Photos, Floor plans, Clips etc. The folder structure is indexed below to help you easily locate files.

For your reference, evidence is numbered, rushes are lettered and outputs for Youtube are given unique names.

- A2_Resources.zip
  - Luke Drama
    - Luke_Drama_1.jpg - The setup lighting the room.
    - Luke_Drama_2.jpg
    - Luke_Drama_3.jpg
    - Luke_Drama_4.jpg
    - Luke_Drama_5.jpg

      - The setup around the subject.
    - Luke_Drama_6.jpg - A (poorly stitched) panorama of the setup.
    - Luke_Drama_7.mp4 - A video of me operating the TecPro panel.
    - Luke_Drama_A.mp4
    - Luke_Drama_B.mp4
    - Luke_Drama_C.mp4
    - Luke_Drama_D.mp4
    - Luke_Drama_E.mp4
    - Luke_Drama_F.mp4

      - Raw video files transcoded to .mp4.
    - Luke_Drama_EFFECT.mp4 - Demonstrating the simulation of the TV.
    - DRAMA.mp4 - Clips C-F trimmed and concatenated. Final output.
    - Luke_Drama_FloorPlan.png - High resolution floor plan.
  - Luke Technical
    - Luke_Technical_1.jpg - The original location of the subject.
    - Luke_Technical_2.jpg
    - Luke_Technical_3.jpg

      - Using the light meter.
    - Luke_Technical_4.jpg - Viewfinder showing Zebras and Peaking.
    - Luke_Technical_5.jpg
    - Luke_Technical_6.jpg
    - Luke_Technical_7.jpg
    - Luke_Technical_8.jpg
    - Luke_Technical_9.jpg

      - The final lighting setup.

    - Luke_Technical_10.jpg - The shadows from the blinds looked cool.
    - Luke_Technical_11.jpg - The final lighting setup.
    - Luke_Technical_A.mp4 - Raw transcoded clip.
    - Luke_Technical_FloorPlan.png - High resolution floor plan.
    - Luke_Technical_Snapshot1.png - Referenced snapshot.
- Other
    - Back Window.png - Annotated view of the back of Kings Blackpool.
    - IMG_20150908_143146.jpg - Photo of back of Kings Blackpool.
    - Key.png - High resolution key used for both floor plans.