



Introduction to Colour – VLE course Script

1. What is Colour?

Colour plays a major part in our lives whether we realise it or not. It provides us with warnings – either through nature or through signs that we become accustomed to. This is not always just about the colours used but can also be about the shape and texture so ultimately we need to consider all three things but colour plays a major part. In all cultures colours have meanings and symbolism but these are not the same all around the world. Colour identifies brands and brands use these to grab our attention. Retailers use colour in their stores to do the very same thing and though we don't realise it we need consistency in those colours for it to "look right".

To understand colour we have to understand where it comes from, how do we see it and what causes all the different hues.

We also need this to be able to control how we see colour and how we communicate colour.

So just imagine a human being in a room with nothing in it and the lights go out.

Suddenly we can see nothing. No light, no vision, no colour. At this stage let's assume the room is white all over

We know that a human has to be present because we are in the room.

The 2 important parts of the human body in seeing colour are the eye and the brain but we can't see them yet as there are no lights on.

So we turn on a light.

Suddenly we can see that the room is white so this must be something coming from the light source. It is **visible light** and by this we mean **light that can be seen by a human being through their eye and interpreted by the brain.**

We all know that human beings are all very different so the eye and brain as the receptors of the information from white light are already not necessarily the best because there is variation. This variation can be extreme where someone is **colour deficient** (which used to be called colour blindness) but it can also be about how much we use our eyes to analyse colour and so can be more subtle. It can be affected by our cultural experiences as well. Definitely affected by our health and anything that affects the way our body works e.g. illness, drink, drugs, and medicines. We will also show that you cannot always believe your eyes.

The light source can be either man made or of course natural as in the sun. We will talk about how these create the sensation of white light, why that is important to you and how we can minimise the differences between light sources.

Why can we see the white light?

Well because it is coming in directly into our eyes and through the eye and brain we interpret it as such. As we are in a white room then some of the light that is bouncing around is reflected and this comes into our eyes to be interpreted by our brain.

So we have a light source and our eyes but we have not seen any colour yet. So someone goes and gets a coloured object. A red car and suddenly we are not only seeing a white light, the visible light, but also a colour.

Obviously this has something to do with the white light from the light source. We have mentioned that light is reflected off the white walls and enters the eye still as white light. So the white light is falling on the object and is being reflected but somehow that object looks red.

We will explain this and the effect of the size, shape and situation of the object has on how we perceive colour.

What we have learnt is that three things are required for anything to be seen.

- 1 A light source – either natural or man made
2. An object and
3. A human being to make sense of what the first 2 have interacted to produce.

That all seems simple enough but to fully understand human colour vision and how to communicate it we really need to understand how these three things interact with each other to create what is human colour vision.

When we realise the complexity of it we will see that to be able to communicate colour we need to control all the variables.

So let's start what is light, sometime called visible light because it's what we as humans see.