"HOW CAN DESIGN BETTER ADJUST THE EDUCATION SYSTEM FOR YOUNG PUPILS "

RESEARCH DOCUMENT- EMILY DYER

CONTENTS:

EDUCATION IS A SUBJECT WHICH I HAVE PREVIOUSLY SHOWN AN INTEREST IN THROUGH MY DESIGN WORK, AND IT IS A TOPIC WHICH I PLAN TO EXPLORE FURTHER. RECENTLY THE TED TALKS VIDEO TITLED "DO SCHOOLS KILL CREATIVITY?" INFLUENCED MY DESIGN PIECE WHICH WILL ENCOURAGE CHILDREN TO BE CREATIVE WITH TYPOGRAPHY. THIS TOPIC HAS GOT ME THINKING A LOT ABOUT OUR CURRENT SYSTEM, AND WHETHER IT IS SERVING ITS PURPOSE FOR TODAY'S SOCIETY. THE SUBJECT OF EDUCATION IS VERY BROAD, AND I HAVE INTENTIONALLY KEPT MY QUESTION OPEN TO FREELY EXPLORE THE SYSTEM ENTIRELY. WITH THAT IN MIND, I WANTED TO TAKE THIS OPPORTUNITY TO NOT ONLY UNDERSTAND THE EDUCATION SYSTEM THAT WE HAVE CURRENTLY, AND THE ISSUES RELATED TO THIS, BUT TO ALSO INVESTIGATE HOW DESIGN CAN TRANSFORM LEARNING ENVIRONMENTS SUCH AS CLASSROOMS.

WHEN TALKING ABOUT EDUCATION, I AM NOT JUST CONSIDERING THE SUBJECTS IN A CLASSROOM. I PERSONALLY BELIEVE THAT EDUCATION IS A LOT MORE THAN GETTING GOOD GRADES AND SOMETIMES WE FORGET THIS.   EDUCATION IS PART OF A MUCH BIGGER PICTURE.

I believe its purpose is about supporting and inspiring young individuals to shape their future and giving them the correct attitudes and behaviours to be able to cope in all scenarios after education.   I strongly believe that those who do not have a positive experience during these important years can often have difficulties later in life, regarding job satisfaction and often mental health, compared to those who enjoy most aspects of learning and the environments in which they do so.

I think that society has changed so much, yet we are still receiving the same level of education as many years before us. I think this is an issue because it means that the needs of today's generation are not being met. Consider how jobs will change in the future- or the amount of jobs which have not been invented yet. Are we preparing students for a future they will realistically be in? It's important that I understand to what extent teachers are properly preparing students, or if more changes are necessary to giving pupils the skills they need to succeed.

By choosing this subject I hope to find a focus point that needs improvement in any area regarding education. The problems which I believe need to be reimagined include supplying pupils with a happier learning environment alongside more creative and inspiring lesson structures. New skills to prepare them for real life situations and jobs is also crucial. Making sure that pupils with learning disabilities or mental health issues are being supported properly and their needs are met to help them cope with it in the future. I also believe design can be used to engage and inspire pupils to learn in more creative way.

Because my subject is so open, and I intend to research a number of areas within the topic of education I have decided to ask the question "How can we use design to better adjust the education system for young pupils" I believe that this statement keeps the research open for me, as well as indicating my area of interest. I believe that making pupils more engaged will help solve the problems I have previously discussed.   Focussing on a learning environment such as a public classroom is important to understanding the change that needs to take place and will keep my research direct. I plan for my research to include primary and secondary pupils as well as teachers because I have access to these, but also, I believe the support given during these years are important and need adjusting.

"IN A GLOBAL ECONOMY WHERE THE MOST VALUABLE SKILL YOU CAN SELL IS YOUR KNOWLEDGE, A GOOD EDUCATION IS NO LONGER JUST A PATHWAY TO OPPORTUNITY—IT IS A PREREQUISITE."

(BARACK OBAMA)

AIMS AND OBJECTIVES:

THE PURPOSE OF THIS DOCUMENT IS TO EXPAND MY KNOWLEDGE ON THE TOPIC WHICH INTERESTS ME- FROM MY RESEARCH I PLAN TO ACHIEVE A BETTER UNDERSTANDING OF THE CURRENT EDUCATION SYSTEM.

I aim to find out whether the teaching methods of today is of a high enough standard to properly prepare students with the skills and knowledge they need for the real world. It is important that I find out to what extent are pupils being supported with their individual needs in a classroom- Looking into existing methods will demonstrate what benefits can be introduced to a learning environment through design. I plan to discuss the current system with both pupils and teachers to highlight the key problems.

From these findings I aim to provide schools with an in depth understanding of how our generation bests learns and uses this in real life scenarios. I will consider the existing methods being used in a classroom regarding design which proves benefits. My main goal is to discover a weak area in the system and with design provide a solution which will have a positive impact on pupils' attitudes to learning.

To achieve my goals in this research document I plan to review student experiences regarding their opinions on support, lesson structure and issues they face during school hours. Investigating student behaviours and attitudes in the classroom will also give me an insight to what needs adjusting raise productivity. I will also reach out to consider the opinions from teachers- what is their understanding of the future, and how are they best supporting students academically and emotionally. They will be able to give me an honest insight to the system today, and therefore highlight several issues within this.

METHODOLOGY:

A qualitive research method I believe will be beneficial to my research is an interview- I plan to conduct an intensive interview with a particular respondents which is familiar to my field of interest in order to explore their perspectives on particular points.

Conducting an interview allows me to have more control on what information I gather and receive. A semi-structured interview would best suit this topic as it ensures that I can ask well-structured questions but adapt to accommodate the interviewee. I believe that this will be more comfortable and therefore I will receive honest answers rather than asking questions which is going to guide the interviewee to a certain direction. This would not be a fair collection of data.

Another approach would be to take a quantitative research method such as online surveys. By sending out an online survey I will receive the data quite fast and be able to organise this data clearly unlike other methods which would require a lot more time. However, sending out a survey would require me to reach a certain demographic- for example there would be no use in uploading my survey to Facebook as my following would not be of a school age. It's important that my survey reaches pupils who are currently in the school system.

Interviews and surveys are approaches which I plan to take as I believe this will give me the correct data that I need to gain an honest understanding of my topic. However, depending on where my research takes me, I may find that a mixed method approach works best. I will not close off other methods such as journey mapping, ethnography and analysing images to gain a wider perspective.

DISCUSSION:

EDUCATION IS A TOPIC WHICH IS CONSTANTLY BEING DISCUSSED IN THE MEDIA- OFTEN WE ARE BEING FED THE UPS AND DOWNS THAT THE SYSTEM IS FACING. FROM OFSTED REPORTS, LUNCH MENUS TO EDUCATION "FAILING" STUDENTS, THE REAL PROBLEMS THAT THE SYSTEM IS FACING IS OFTEN HIDDEN. WITHIN THIS DOCUMENT I AIM TO DIG DEEP INTO THE TOPIC OF EDUCATION AND FIND A PROBLEM WHERE DESIGN CAN PROVIDE A SOLUTION.

One main problem linked to education today is the negative impact on young people's mental health. There is increasing amounts of pressure being put on pupils which can often become too overwhelming. Having this negative impact during these crucial years is not going to supply them with the confidence and willingness to work hard for their future. "Young people continue to be judged on academic performance with little regard for their mental health. Literacy and numeracy are the key markers of success. Yet young people are facing unprecedented pressures in life, leading to anxiety, depression and eating disorders" (Mental Health Foundation, 2018.)

How can we make education more enjoyable for someone growing up today? I often wonder if the current system works for today's youth, an academic that is strongly influenced by social media and becoming more and more exposed to new lifestyles and possibilities.

During my research I came across a report presented to The National Institute of Economic and Social Research conference regarding the effect education has on mental well-being (Jonathan Gardner and Andrew Oswald, 2002.) This document stated that "high levels of education seem, later in life, to contribute to lower levels of mental stress...In other words, psychological health is improved by education. This may be because educated people have more choices - they have greater control over their lives and better security." The purpose of this statement is to demonstrate how higher levels of education at a young age can statistically improve mental wellbeing during later careers. To a certain extend I agree with this- job satisfaction will most often be due to the education that an individual has received and committed to. However, "psychological health is improved by education" is a statement which we cannot apply to a young academic. With the knowledge that 50% of mental health problems are established by age 14 and 75% by age 24, education is not having a positive impact- in fact it is having a reversed effect.

Looking into the learning styles that take place in a classroom will allow a greater insight to how pupils respond to what is being taught in schools. In the UK, the average classroom is made up of 30 students. However, it is important to consider there are many factors that separate this audience and can affect the levels of education they receive. For example, individuals may have separate needs such as learning difficulties or disabilities, family and outside lifestyles might cause deterioration in the level of focus applied in a classroom, not to mention the fact that as individuals we each take in, process and use information differently.
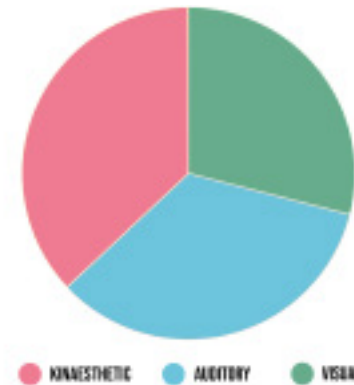
In fact, there are commonly 3 different learning styles. Visual learners relate best to written information such as notes, diagrams, and pictures. Auditory learners would rather listen to a lecture, then take notes afterwards. Finally, Kinaesthetic / Tactile Learners prefer a hands-on approach, learning through touch and movement. According to Kids Learning HQ (2015) A typical classroom will have around 29 percent visual learners, 34 percent auditory learners and 37 percent kinaesthetic learners. 30 percent of students will have mixed learning styles meaning they best respond to more than one method.

We must consider how teaching styles can influence learning- if only one learning method is often used then naturally the attention and enthusiasm in some learners will get lost. An example of a heavily visual lecture includes allowing students to draw/doodle and be creative with colour because these learners care about how things look. They naturally respond well to lists and writing thins down. This compares to a lesson aimed at auditory leaners. This lesson might consist of students listening to each other and speaking their opinions. Reading out loud is a common trait in this category.

A kinaesthetic learner however learns best when they can physically apply skills through imitation and practice. They like to move around a lot and can often become restless with lectures and long explanations. They best thrive when they can interact with learning materials that they can touch and move.

These are just 3 different examples of how lesson structures do not successfully engage each member of a class. With this comes over problems such as behavioural issues or falling behind academically. As discussed previously, this added pressure can be the cause of mental illness in young people.

To compare these results against students currently, I sent a survey out to High School students, currently in year 11 and received 18 responses. Before starting the surveys, I was already aware of how schools can have a negative impact on mental health. I have been exposed to people who have been affected by this, so I have some knowledge on the issues the education system is inflicting on this generation. Supplying schools with the skills to assist pupils during times of struggle is important to introduce. I also understand that individuals in a class has a different lifestyle, different ways of working and different problems going on in their life. I fail to understand how one teaching method, one environment and one system can successfully accommodate every single individual in giving them the support and guidance they need through school. However, this is my own opinion, and to gain a true insight I need to target the correct demographic.

THE AIM OF THIS SURVEY IS FOR ME TO UNDERSTAND THE VIEWS OF A RANGE OF PUPILS THAT ARE CURRENTLY IN THE SYSTEM.

THROUGH THE DATA THAT I COLLECTED FROM MY SURVEY, I LEARNT THAT NONE OF THE PUPILS WHO ANSWERED COULD ADMIT TO FEEL CONFIDENT IN KNOWING HOW TO REACH THEIR CAREER GOALS, AND OVER HALF OF THE PUPILS ARE UNSURE WHAT AREA THEY WANT TO GO INTO. THIS SUPPORTS THE FACT THAT SCHOOLS ARE NOT FULLY PREPARING PUPILS FOR THE OUTSIDE WORLD.
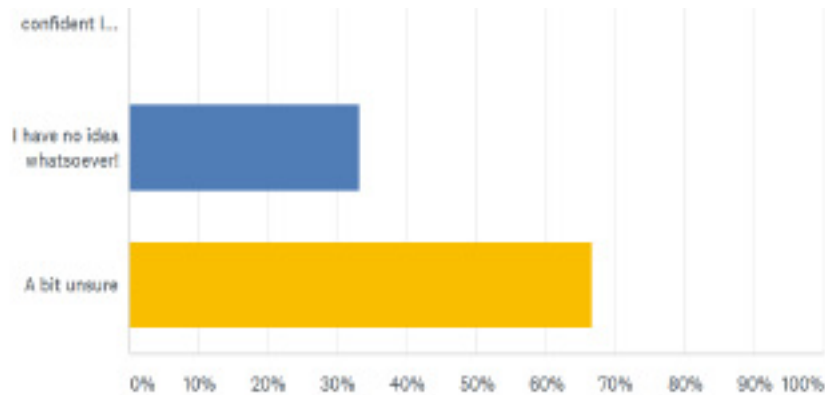

When asked if they prefer primary or secondary school, only 2 out of 18 said they prefer secondary school because the independence made them feel more confident and they found there was more options when it came to subjects. The reason why I asked this question is because I understand the seriousness that comes with higher education- although it needs to be serious, I wonder if having a more stressful environment could put pupils off learning. My findings showed that I was correct, as students said they feel more pressure in high school whereas typically the classes were more relaxed, friendly and fun in previous learning years. This indicates that despite being older, pupils would feel happier when in a more stress-free environment. Considering solutions design can provide such as calmer spaces would successfully solve this issue. every single individual in giving them the support and guidance they need through school. However, this is my own opinion, and to gain a true insight I need to target the correct demographic.

I wanted to understand where pupils preferred to learn, and what spaces allow them to stay focused and on track. The results were divided between most being productive in a quiet area with no distractions, whereas others worked well with friends or working verbally. This demonstrates how each have different way of learning, and from this I know that lesson structures won't be best benefiting all students who work in different ways. Seeing what technology they use in class is also important so I can understand ways to use this as a means of support.
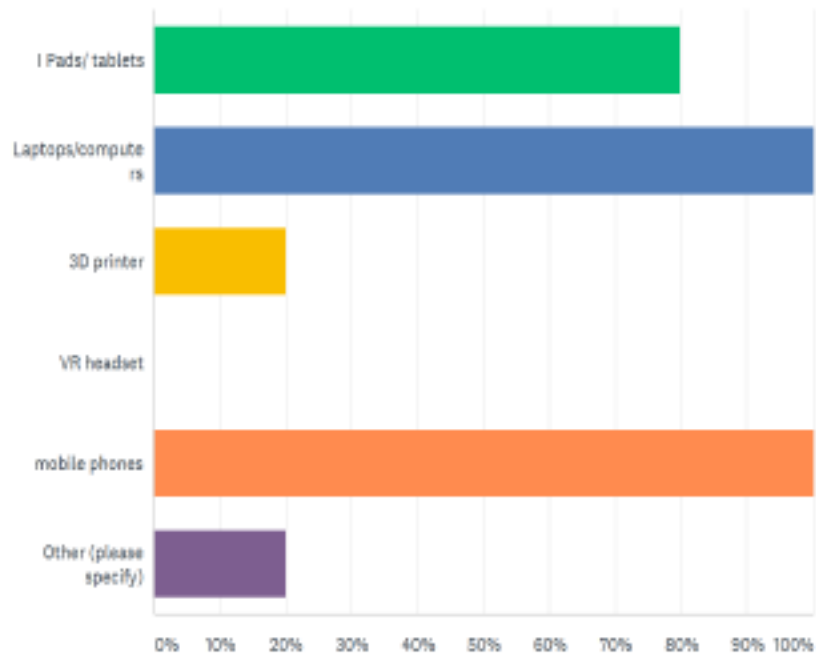
"I STRUGGLE TO FOCUS IN THE CLASSROOM"

One question which gave me a lot of insights was, "what common problems happen in a classroom." Behaviour was a common answer, stating the other students are distracting and often are not disciplined correctly. This can result in lessons being rushed. One comment stated that often "I struggle to focus in the classroom because sitting next to certain people makes me feel uncomfortable." Something that I wasn't aware would happen in a classroom is bullying, one comment highlighted that in large classes people are harder to control so this can often happen. Finally, I learnt that often higher-level students don't get pushed enough and pupils who struggle don't get enough support when classes are of mixed ability.

Unfortunately, I was unable to make observations in a classroom so I decided to observe in a learning environments I have access to - Cardiff public library. I decided to monitor the way that children act in the environment, and what behaviours appear.

The library itself offers Story time, Rhyme time or Language and Play sessions for under 5s, and this is reflected through the bright colours alongside child friendly furniture such as soft chairs, and low tables. I noticed mobile phones were being used by children as young as 4, and generally this kept them still and quiet. With material like books they were more fidgety however I think being able to move around meant behaviour was acceptable for the environment. This again indicates that children respond well in a free but safe environment, and technology can be a way to keep them focused.

UNDERSTANDING WHAT SOLUTIONS ARE ALREADY BEING INTRODUCED TO THE WORLD OF EDUCATION IS IMPORTANT IN THIS RESEARCH DOCUMENT AS FROM HERE WE CAN ANALYSE THE SUCCESS RATE OF THESE, OR PERHAPS HIGHLIGHT OTHER AREAS AND PROVIDE A SOLUTION.

Multipurpose Classrooms is one key solution that is currently being introduced to combat common problems in schools. Multipurpose rooms allow a more varied teaching style, giving different learners a chance to blossom in all subjects. Adjusting the everyday classroom will also enable teachers to maximise the quality and quantity of learning throughout a busy school day. Ways that multipurpose classrooms are being created, as proposed by The Continuing Education Centre (2016) include using movable high-performance glass walls to support and provide teaching methods that "allow for active participation, self-direction and the clustering of different interest groups." For example, Teachers can utilize them to block areas off for interventions to improve behavioural problems. Using glass also provides a safe environment as staff can monitor several classrooms at the same time. They can provide a space for exams and encourage joint classroom projects by opening two rooms into one larger space. For a more serious use, safe zones during school lockdowns allow a secure space to be made as well as ensuring there is limited visibility from public corridors. Even encouraging a more active lifestyle can be enforced by opening indoor rooms into outdoor spaces. Creativity can also be heightened. Instead of walls consider the placement of whiteboards as an option for wall panels. Often creative studio spaces include this aspect to encourage brainstorming- a simple method often used throughout learning.

More technology driven solutions are also making its way into the education system such as touch screens, predictive text, flexible seating and voice dictation. Applied correctly these methods can enhance the ability of learning for students with disabilities. Flexible seating is beginning to transform the modern classroom by providing a variety of sitting which has been proven to have several benefits. Students feel empowered by having some degree of choice and control over their environment, which will therefore improve attitudes.

Flexible seating allows students to choose where they work and allows them to change their location and positions when they feel necessary. As an article on Smith System (2017) states, "Children need to move. Flexible seating allows them to wobble, rock, bounce, lean or stand, which increases oxygen flow to the brain, blood flow and core strength." This will ensure that their minds are a lot more alert, enabling them to fully focus on their work. A 2012 study from the University of Minnesota found that students participated 48 percent more in discussions in a classroom with collaborative group seating versus traditional lecture-style seating and improved their performance on standardized tests.

n 2017 A tornado decimated Goodman Elementary School giving them no choice but to completely reinvent their school. They applied flexible seating- each classroom features "wobbly stools at different heights." which introduced a laid back and fun environment for pupils to work in. Each room also has an "interactive flat-panel display and a PowerGistics tower, a small-footprint shelving system that stores and charges Chromebooks and tablets." (Wylie Wong 2020.)

They have completely evolved the dynamic of teaching. According to Hamilton (2020) "Teachers rarely lecture... They may give a 15-minute lesson on a targeted skill, then do small-group instruction." Their class time is made up of children independently working on assignments, whilst being encouraged to be creative and collaborate. Other forms of technology such as 32-inch Samsung displays have been hung outside each classroom to display student's work or to act as a bulletin board. Students can also connect their devices to the displays and work on projects. This is an example of how we can use technology in a positive way, which will aid and inspire learning to take place in a classroom.

Pexals

VR headsets is another existing design solution which has been proven to improve the quality of learning in a classroom. As mentioned in Nick Morpus's work (2017), Virtual reality & augmented reality are set to make a significant impact in higher education in 2017. This is supported by Marianne Stenger's document (2017) which demonstrates ways some schools are already using VR to assist teaching.

VIRTUAL REALITY

Although VR can be very costly, major players in the education and technology sectors including Google and Facebook are already pursuing applications for the classroom as shown by Marianne Stenger (2017) Ways VR can be used include Virtual field trips and language immersion. Google expeditions is a common use, as with VR and AR, teachers are no longer limited by the space of the classroom. VR lets you explore the world virtually while AR brings abstract concepts to life. It is easy to set up and is a way to help students visualize information in a new way, which is proven to positively impact their ability to retain information. Using something like cardboard to build headsets you can attach a smartphone which allows students to actively explore anything like the deep sea or outer space. To support language lessons, being able to fully immerse into a new city and be surrounded by a different language supports their speaking and listening skills. They are no longer restricted from travel. Unimersiv is an app which allows learners to connect with people from all over the world and practise their language skills through playing games and interacting with other students in a virtual world.

Learning skills through VR is a lot safer and still prepares pupils for the real world. One experiment carried out by Google found that people that received VR training learned faster than those who watched video tutorials. As discovered previously, learning through a hands-on playful way is highly rewarding. Game-based learning works because in increases engagement and motivation, and virtual reality can take this to the next level.

In areas like design and architect, Schools are also finding that using VR technology can spark students' creativity and keep them engaged. "At a primary school in Ireland, students have even been using VR to construct 3D models of historical Irish sites and then visit them virtually." demonstrating that the possibilities are endless. Supporting special education is also something which can be achieved through VR- often apps can help calm students who would sometimes struggle due to disabilities such as autism.


This image alongside a document titled "The VR headset made our kids disappear" is one of many examples how some parents are against the use of VR. The image has been used to display the technology in a bad light, by showing an innocent young boy being fully immersed into the technology. Although he might be learning new skills or be immersed in a world which will spark his creativity, this document by Paul Jacobson (2016) says VR can make children "become oblivious to the world around you." and "With a VR head-set, he is sequestered from his physical space and from everyone sharing that space with him." indicating that time spent socialising is restrained. It is important that this misrepresentation is changed to ensure that we can move forward and develop schools for the future.
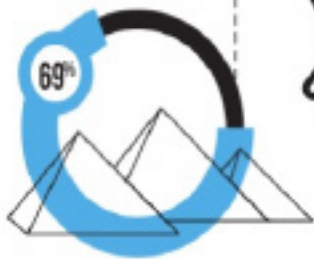
HOWEVER, DESPITE VR'S ABILITIES TO AID LEARNING IN SCHOOLS, SOME ARE VERY WARY ABOUT INTRODUCING MORE TECHNOLOGY TO THEIR CHILDREN.

Teachers are constantly evaluating and experimenting with new technology. **A survey of more than 1,000 U.S. K-12 teachers explored one of the newest and most promising technologies: virtual reality.**

85%
of teachers agree that virtual reality would have **a positive effect on their students.**
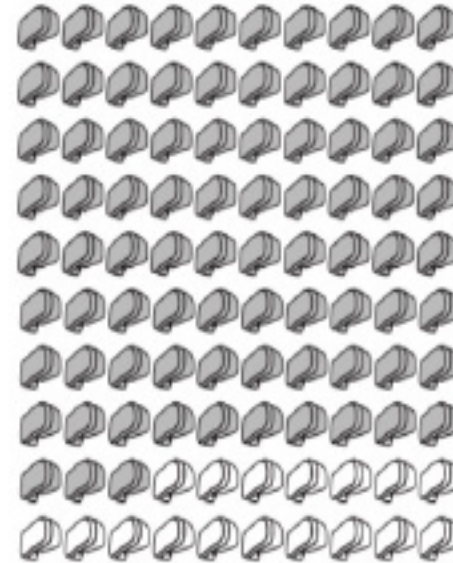
2%
of teachers are **using virtual reality** content in their classrooms.

85%

2%
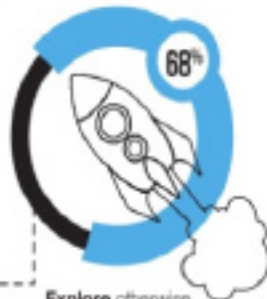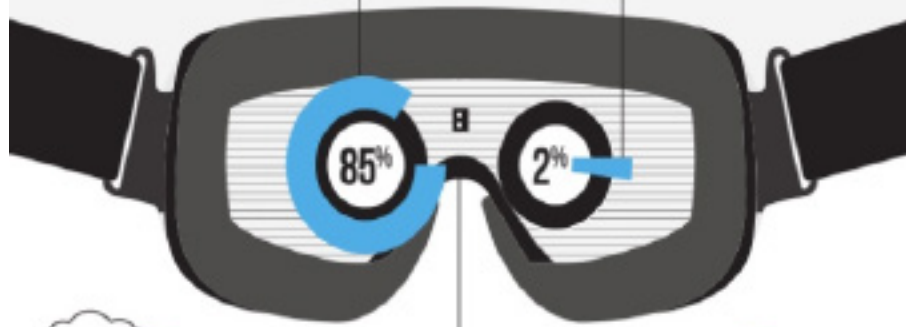
LEARNING OPPORTUNITIES

From taking virtual field trips to the aquarium to diving to the bottom of the ocean floor, opportunities for virtual reality in education are endless.

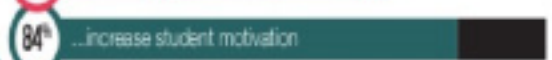**Teachers would like to use virtual reality to enable students to:**

72%
Simulate experiences relevant to course content like flying as the Wright Brothers did in 1903

68%
Explore otherwise inaccessible locations like outer space

69%
Travel to distant world landmarks like the great pyramids of Egypt

68%
Supplement course curriculum to help students better understand concepts like a chemical reaction for a science lesson

LEARNING OUTCOMES

83%
of teachers say that **virtual reality might help improve learning outcomes**

% OF TEACHERS SAY THAT VIRTUAL REALITY WOULD :

77% ...help students better understand learning concepts

71% ...allow for greater collaboration in my classroom

84% ...increase student motivation

PREPARING FOR GRADUATION...

42%
of high school teachers (grades 9-12) would like to use virtual reality to tour college campuses to encourage students to pursue higher education.

INFOGRAPHIC FROM SAMSUNG

TO GAIN AN INSIGHT INTO THE METHODS AND LEARNING THAT TAKES PLACE IN A CLASSROOM, AND TO SEE THE OPINIONS TEACHERS HAVE ON USING DESIGN TECHNOLOGY AS A LEARNING AID, I REACHED OUT TO A TEACHING ASSISTANT WORKING IN BOWHILL PRIMARY SCHOOL. WITH THIS INTERVIEW IT WAS IMPORTANT THAT I LEFT UNDERSTANDING THE METHODS THAT ARE ENFORCED INTO PUPILS TODAY, AND THE PROBLEMS THAT ARE FACED DAY TO DAY IN A CLASSROOM.

Before going into this, my hypothesis was that teachers had little to no understanding of the future and how to best prepare their pupils for real life. Considering that funding is probably quite low as well, I expected to hear that classes were traditional, and technology is not yet fully being used to support learning. Working with children who are 10 and 11 years old, the main purpose of Denise Dyer's roll in the classroom is to supervise learning and provide extra support for those with special needs. These needs include pupils with learning disabilities, autism, OCD, diabetes and those having difficulty at home. I asked what aspect of the schooling system has changed since when she was a pupil. In her opinion most aspects of the system have been changed such as providing pupils with more opportunities to interact and work together. Regarding the spaces used, she believes schools and classroom are generally a lot nicer to look at. However, she did mention that a higher level of work is expected, and more pressure is being put onto pupils- this I agreed on.

I was curious to know the level of understanding teachers have with technology, so I enquired about the use of VR. She admitted to not knowing was VR means or how it can be used, however once I gave information regarding how we can use VR in a classroom she admitted being comfortable in introducing this to classes. This was a positive response which indicates that if given detailed information on ways VR can benefit pupils, we can abolish the fear that comes with technology and begin to guide teachers into using these tools for good.

Technology is becoming a big part of learning/teaching methods in schools. To find out way's technology can be used, I asked what the most common teaching method is- I was surprised to hear the answer. "Listening to a lecture and writing notes is our most common teaching style."

This did not make any sense to me, as when asked about the struggles that happen regularly in the classroom the answers were children were not engaged, unable to follow the methods, not focused and bad behaviour. As stated by Brain Balance Achievement Centers (2019) the typical attention span of a 10-year-old is 20-30 minutes- meaning they lose focus easily. I strongly believe listening and writing notes would be a method which allows pupils' focus to decrease, compared to a method which is more hands on. When I expressed this view, Denise agreed that for a lot of students listening for long periods of time are challenging. I question that even though they are aware of this, why are changes not being made to raise productivity and enthusiasm in class? To understand the level of knowledge that teachers have on the future, I explained that the future is becoming very unknown. In 20 years', time 60% of all jobs will be new- they currently do not exist.

I then questioned whether she believes teachers have been properly prepared to support a new generation of workers? The response was "Yes, we are aware and understand how to supply this generation with the skills for their future. The education system is being altered often to support a more digital world. We introduce ICT skills and make use of our interactive whiteboards. This already a big change and I believe it will only get more complex." Personally, I thought this answer was quite contradicting and I disagree with this statement. Having responded that the most popular lesson structure requires writing notes and listening, instead of fully engaging students, I feel that this indicates little knowledge on what this generation needs. This demonstrates that the system has not changed much in the past years despite the future for pupils becoming entirely different. Although being aware, I feel that more can be done to supply teachers with the tools and knowledge they need to fully support their students.

KEY PROBLEMS:

COMPARING THE RESULTS FROM THE SURVEY AND THE INTERVIEW I FOUND THAT THERE AROSE SOME PATTERNS AND THEMES WHICH CLEARLY IDENTIFIES A PROBLEM IN THE SYSTEM. FOR EXAMPLE, BOTH PARTIES COMMENTED ON A LACK OF FOCUS AND REGULAR BEHAVIOURAL ISSUES. THIS HIGHLIGHTS THAT PUPILS ARE NOT BEING CAPTURED AND ENGAGED AS WE WOULD HOPE- NOT ONLY WILL THIS AFFECT THEM BUT THE PEOPLE AROUND THEM. PROMOTING A HARDWORKING LIFESTYLE IS SOMETHING WHICH WE SHOULD BE DOING IN SCHOOLS, AND I BELIEVE INTRODUCING NEW DESIGN SOLUTIONS CAN SOLVE THIS.

WITH MY QUESTION IN MIND, "HOW CAN DESIGN BETTER ADJUST THE EDUCATION SYSTEM FOR YOUNG PUPILS" THE NEXT STEP IS DEVELOPING DESIGN SOLUTIONS WHICH CAN SUCCESSFULLY BE USED IN A CLASSROOM TODAY.

This research document has identified several issues in the education system- each of these propose a design solution to be applied later. The problems which I have discovered through methodologies and relevant research include pupils not feeling confident or being fully prepared for their lives outside of education. Mental health in schools is also a major issue- learning how to cope with stress and successfully organising your time is something that is often missed.

Regarding teaching methods, a system which allows people to work by their preferred learning types would suggestively improve behaviour and attitude to learning, as it will become more enjoyed and therefore respected. Adjusting the spaces of a common classroom will also spark creativity.

ding for schools is often low, o no money to invest in new of technology is also holding om introducing new ways to gain the skills that they need I believe that this is the big- roducing more schools with ill help transform the system that is stuck in the past- this olutionise the way we teach and learn.

ED TO CHANGE MY QUESTION...

SUMMARY:

NOW THAT I AM AWARE OF THE ISSUES WITHIN THE EDUCATION SYSTEM THAT NEEDS TO BE ADJUSTED, MY ATTENTION HAS BEEN SHIFTED TO FINDING DESIGN SOLUTIONS TO MAKE PUPILS MORE ENGAGED AT SCHOOL. BECAUSE OF THIS, I HAVE DECIDED TO CHANGE MY QUESTION. "HOW CAN WE BETTER ENGAGE PUPILS WITHIN A LEARNING ENVIRONMENT" ALLOWS ME TO CONSIDER THE RANGE OF ISSUES I HAVE DISCUSSED WITHIN THIS DOCUMENT, WHILST BEING ABLE TO CONSIDER DESIGN SOLUTIONS SUCH AS VR HEADSETS AND HOW WE CAN SUCCESSFULLY INTRODUCE THIS TO MORE SCHOOLS ACROSS THE UK.

"HOW CAN WE BETTER ENGAGE PUPILS WITHIN A LEARNING ENVIRONMENT"