

THE TRURO SCHOOL EXTENDED PROJECT QUALIFICATION SHOWCASE EVENING

MARCH 11TH 2020

The Extended Project Qualification at Truro School is an established A-Level programme that equips students with a range of professional, academic and personal skills. From researching to referencing; discussing to creating; each student's project is a unique venture into a personalised area of interest. Students select one project from an option of four (artefact, dissertation, investigation and performance) and delves into a defined area of enquiry. After completing their projects, they are finally required to present their work to a non-specialist audience. The following abstracts are from the 2020 cohort who are presenting this evening so please take a moment to have a read. You play an important part in this evening as you will be able to ask the students questions about their projects and they will be assessed on answering these.

SEAN HEANEY: ARTEFACT

Designing and making an adapter that makes headphones and speakers wireless without compromising on sound quality, latency and features?

High quality headphones are made to have the highest audio quality with nearly no compromises, but they are almost all wired because they require an amplifier and DAC (Digital to Analog Converter) to make the signal louder due to the extra power which they use to run. These are usually quite bulky and sit in an external box next to the computer, which they run off. This also doesn't allow them to be utilized by phones as they require extra power to run the external box. Due to recent advances in Nano technology, amplifiers and DACs are much smaller and can fit into a product which can provide this in a portable way. The brief here is for a redesign.

JAMES LANSDOWNE: ARTEFACT

Johnathan Livingstone the Seagull: A composition.

I was given a copy of Richard Bach's Jonathan Livingstone Seagull by my godfather at my christening, 17 years ago (as of 2019). I neglected to read it for most of my life but following my disillusion with A Level subjects, I decided that it might be pertinent to try. The message of the book resonated with me, and as a keen composer and music producer I thought I might be able to convey the story myself and to contribute in a fashion that adequately represents both my own ideas and Bach's. I will need to research modern films and game soundtracks as well as music to gain an insight into the truest and most complete ways to represent my ideas. I felt that the original film adaptation did not best fit the story as the use of lyrics detracted from the story and imagery.

MEGAN GRIFFITHS: ARTEFACT

A series of photographs influenced by five different 20th Century portrait photographers.

In this EPQ I will be exploring how portrait photography has changed and developed over the 20th century. I will be carrying this out in the form of an Artefact so therefore my final pieces which I create from this will make up part of my portfolio which will allow me to apply for a Photography degree at university. I have chosen to explore the 20th century due to how monumental this 100 year period was and how gigantic the vast changes in technology are.

I am intrigued into discovering how such an important art form has developed since the early stages of the 20th century when photography was first made accessible to the middle class with the invention of the Brownie Camera. I am looking forward to discovering new photographers who I wouldn't usually of decided to personally study and to explore how they embraced the contemporary changes being made to the world of photography throughout the 20th century.

DYLAN HOWARTH:

From Samsara- A visual interactive experience

I want to make this VIE as I feel it's a very pressing issue in modern society. With our increasing reliance on technology in our daily lives (not to mention the hours many people waste away on social media) I feel it is important to tackle this issue to help the lives of everyone who may not even realise they are in this "frozen", or "zombie-like" state of mind. As an avid gamer myself, I often find myself contemplating how much time I devote to my hobby, and the impact this is having on my wider life. Furthermore, I feel gaming is the perfect medium in which to spread the message of From Saṃsāra. Games such as Undertale, Hyper Light Drifter and The Red Strings Club have all proven that games can spread this type of message and cause positive change in peoples' lives – I hope to follow in their footsteps. The purpose of From Saṃsāra is to change the real-life behaviour of the players, in relation to how they view their own lives and how they try to resist and escape from saṃsāra in their busy, modern lives. The project outcome is to produce a fully functional game that will be published on the massive PC gaming platform of Steam, and to use whatever I end up producing as a platform for future projects/discussions at university or beyond.

HARRY CORDEN-LLOYD

Cornish waves surfboard: Research, design and production of the most efficient surfboard for Cornish waves.

The need for different surfboards for different conditions is huge. Having the right board for a particular type of wave is a must for surfing, especially the more unpredictable waves of Cornwall. The title of this project has been chosen due to my personal interest and life hobby of surfing. The project will help me acquire the skills I may need for any plans of becoming a surfboard shaper in the future. The research section of my project will help to further improve my knowledge and understanding of the progression of surfboard design and production skills. Alongside these primary skills I will also obtain the skill of researching a topic that I have limited knowledge in. This will be helpful in the future at university. The topic is important to me as I am a keen surfer who would potentially be looking at a future career path in the line of surfboard production. This project will subsequently give me skills to plan future long-term projects. .

GEORGIA STONE

An oil painting inspired 'Le Concours pour la Figure symbolique de la République' to represent the views of my generation on the future of the UK.

The brief for this project was to produce a piece of artwork: an oil painting which represented the views of my generation on what they consider to be the ideal future of the UK. It took inspiration from three paintings which were entered in Le Concours pour la Figure symbolique de la République, which was a painting contest launched by the French government in 1848. I decided not to research different media for the artwork as I wanted to reflect the style of the original paintings entered in this competition. Additionally, there being so

many potential areas to research, the focus of the project was on collecting and expressing the political ideas of my peers rather than researching different styles and techniques of painting.

At this stage we shall have a short interlude with tea and coffee being served in the Lily Room. There will be a chance to meet the students and find out more about their projects and see them in rooms 50 and 51.

BIMINI LOVE- DISSERTATION

Are cultural and educational taboos of periods the cause of period poverty?

This dissertation is discussing the different factors affecting Period poverty, particularly focusing on the educational, cultural or economic factors. This is a huge problem for women across the world and is universally being ignored. This is a problem that isn't going to go away and needs to be addressed, which this paper found to be starting at the grassroots education of children. At a first glance, period poverty within third world countries may seem obviously down to the lack of money, but when you actually look at it the education and culture surrounding periods is much more significant. This is because periods are much less of a priority for women in these countries, however what is disturbing is that this is reflected in first world countries like the UK, who in theory could afford to remove period poverty. Thus, showing that the financial implications may not be the most significant and the education and the taboos surrounding menstruation could be to blame. The lack of proper menstruation education and awareness from a young age has caused a lack of understanding of how to manage periods effectively, as well as creating an environment in which young girls and women cannot freely discuss periods. As well as this, the removal of financial barriers such as VAT tax, and funding for women in most deprived situations should be mandatory across governments, but shouldn't be the main aim, as tackling the education and culture are much more significant.

JAMES BRAZIER- DISSERTATION

Can bacteriophage be used as an alternative solution to antibiotics, in order to solve the antibiotic resistance crisis?

This project explores the viability of using bacteriophage as an alternative to antibiotics in order to solve the antibiotic resistance crisis, which is particularly prevalent in today's society. Some bacteria can become antibiotic resistant due to mutations in their DNA, which then creates antibacterial infections. These infections cannot be cured using antibiotics, which is a huge issue in hospitals as antibiotic treatment is the main, and one of the only, treatment options for bacterial infections. This is why bacteriophage must be considered as an alternative treatment option in order to kill bacterial infections. This dissertation focuses on three main arguments on the viability of bacteriophage as a solution: the viral specificity of bacteriophage; convenience; and the interactions of bacteriophage with bacteria and antibiotics. From the outset of this dissertation, the original thought was that bacteriophage should replace antibiotics instantly. That was thought to be the best solution to the antibiotic resistance crisis. However, after thorough research, the author has reached the conclusion that bacteriophage are a possible solution to the antibiotic resistance crisis, but they need to be used alongside antibiotics. They cannot be used on a large scale until more research has been invested into bacteriophage. Because of these findings, the WHO should carefully consider reducing their funding into more antibiotic development programmes when their funding could be invested into the development of bacteriophage treatment (phage therapy).

FINLEY MOREL- DISSERTATION

Making the UK's 6-in-1 vaccine compulsory today: Would it be suitable and advantageous when considering ethic, biology and economic implications?

The author aims to discuss the economic, ethical and biological perspectives of introducing a compulsory vaccination policy to the United Kingdom- specifically relating to the NHS's current 6-in-1 vaccination. The discussion, is influenced by the UK's history of vaccine policies and the hypothetical future that the introduction of one may create. However, the project itself is firmly placed in the present day. The project considers the advantages and disadvantages of a vaccine policy for the United Kingdom. It discusses concepts such as the potentially greater net savings for the NHS, herd immunity and the potential decrease in death rates. When discussing how advantageous this policy may be, the dissertation also assesses the underlying social suitability of the project- analysing arguments such as: public discontent, the effect on individual families and alternatives compulsory vaccination. Conclusions are drawn in favour of both opposing sides. The dissertation reveals that the programme would prove suitable and advantageous in some aspects, such as increasing the UK's overall health, whilst analysing concepts such as 'Anti-Vaccination Protests' to give converse arguments. It can be seen that the overall conclusion is, despite the scheme being largely advantageous, that it would be considered unsuitable for the government to introduce the initiative to the UK today due to underlying social factors and the opposing ethical perspectives.

LOTTIE MILLAR- DISSERTATION

Teenage alcohol abuse: Is it the biggest issue facing our society's adolescents?

This project considers the main physical, mental and socioeconomic issues surrounding teenage alcohol abuse, and assesses whether these are major problems for our society's adolescents. It also considers other factors that may be more pressing issues facing teenagers: mental illness, lack of sufficient education and use of other illicit drugs. The main arguments in this project took on many different forms. First, statistics relating to teenager alcohol abuse were analysed in order to evaluate whether it is the biggest issue. The effects of alcohol abuse were related back to a teenager's future and argued whether they would have the biggest effect on their future – more than mental illness etc. It was evaluated whether alcohol abuse is caused by poor mental health or if there are other issues to consider, and then the other factors previously mentioned were assessed and it was argued whether they are more pressing issues facing adolescents. The final argument within the discussion debates whether the problem of teenage alcohol abuse could be resolved by increased focus on education and mental illness, or whether the issue needs to be tackled directly. This project concludes that alcohol abuse is not the main issue facing our society's adolescents, and it is in fact mental illness and a lack of education (both on alcohol and in general). It is also concluded that the government needs to take immediate action on these issues, as by tackling them, the root of teenage alcohol abuse is tackled (in many cases). This therefore means that incidences of teenage alcoholism would reduce greatly, therefore meaning that funding these two issues would solve the issue in the title.

MARY OWEN- DISSERTATION

Is parenthood the driving cause of the gender pay gap in the United Kingdom?

With increasing protectionist policies claiming to strive towards equality in the UK and substantial shifts in societal views regarding gender roles in family life and careers, it is important to understand why the gender pay gap still exists today. One widely perceived cause is parenthood. In light of this, this project's aim is to discover if parenthood is the driving cause of the gender pay gap. Or are there other causes, unrelated to parenthood, that are having a more significant impact on the gender pay gap? This project explores different aspects of parenthood that can put mothers at more of a disadvantage in the workplace than fathers. The discussion further highlights how other factors, unrelated to parenthood, can result in women being, on average, less financially successful than men. The discussion analyses the significance of each of these factors on the gender pay gap. This project recognises that there are notable factors contributing to the gender pay gap unrelated to parenthood. Although concludes, that the combined effects of parenthood on men and women's pay results in parenthood being the driving cause of the gender pay gap today. In the future, there needs to be an increasing number of UK protectionist policies to protect the interests of women, especially mothers. For example, shared parental leave. For the gender pay gap to be significantly reduced, there needs to be a shift in how the UK, as a society, views gender roles within parenthood. However, it is likely to be a considerably long time, if ever, before being a mother isn't viewed as a disadvantage in the workplace at all.

ALEX MARTIN- DISSERTATION

Was Bismarck the primary factor in causing the German unification?

This dissertation considers the various causes of the 1871 Unification of Germany with a specific focus on the role of the Prussian statesman Otto von Bismarck. In order to do this, it explores the work of various scholars of this period such as AJP Taylor, LCB Seaman and William Carr as well as primary sources including the memoirs of Bismarck himself. It also examines the logic behind these individual's arguments and how well they bear up in light of evidence from the time. In discussing the role of Bismarck this dissertation will examine the master-planer theory. Broadly speaking proponents of this theory will argue that at least as early as 1866 and often earlier Bismarck had the Unification planned and manipulated events at the time to ensure its success. Meanwhile (again broadly speaking) its opponents argue that Bismarck never really intended to unify Germany (at least until 1870) and that its success was due to a series of other factors rather than Bismarck. In the end the conclusion of this project is that while all the factors discussed were important in Unifying Germany it was the weakness/lack of opposition faced by Prussia that was the most important factor. It also concludes that while Bismarck was a skilled statesman his role in Unifying Germany has often been overstated.

I would like to thank you all for your participation in this years EPQ showcase evening. It is a wonderful opportunity for our students to experience public speaking and will support them later on in their future endeavours. I would also like to thank Mrs Stone for her wonderful continued support to our students as well as to all the supervisors who go above and beyond to support the students in realising their potential.