



THE TRURO SCHOOL EXTENDED PROJECT QUALIFICATION SHOWCASE EVENING

MARCH 10TH 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 2019 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.

OLLIE EDWARDS- DISSERTATION

Can genetic engineering make coral reefs more resistant to rising sea temperatures?

The aim of this project is to determine whether genetic engineering is a viable form of coral protection to the highly pressing issue of global warming. To accurately evaluate whether the genetic engineering of coral is a potential form of resistance to rising sea temperatures, other solutions already in place needed to be analysed. This allowed the most reasonable solution to be identified and aided the answering of the title. The project lead to the conclusion that in the time scale available, genetic engineering of coral is not a viable form of protection against rising sea temperatures. However, the window of opportunity for any protection techniques to be implemented within can be extended by a more concerted effort against climate change as a whole.

MOLLY BROWNE- DISSERTATION

Does Andrew Wakefield still influence parents decisions to get their children their MMR vaccinations?

The aim of this project was to see whether Andrew Wakefield was still having an impact on parent's decisions to get their children their Measles Mumps and Rubella (MMR) vaccinations. To understand the impact of children not receiving the MMR vaccination, the author researched the phenomena of 'Herd Immunity' and how that can have an impact on the health of a large population. The author then continued to discuss: the statistical evidence of the MMR vaccination uptake in the UK and US, lack of education in our society, social media and ethical/religious beliefs that may have an influence on parents' decisions to get their children the MMR vaccination today. The author did come to the conclusion that Andrew Wakefield still has an influence on parents' decisions on whether to allow their children to receive the MMR vaccination. However, the author does state that they believed Wakefield's influence was indirect and that factors like social media and a lack of education on the MMR vaccination may have also influenced parents' decisions to get their children the MMR vaccination.



JACK HIGGINSON- DISSERTATION

Is hydrogen power the best green energy fuel source for the future?

The main aim of this project was to discuss if switching major fuel sources was viable weighing up the economic and environmental factors to decide whether these should be considered more seriously as a long-term solution to global warming. The main arguments lay in whether there was a fuel source that made a great enough positive impact on the environment that could justify spending money on new technology which was both sustainable and available globally. Availability to all countries of different developments was an important factor to consider as it was evident that if an impact on global warming was the goal, then any changes to our major fuel sources needed to occur on worldwide scale if it was to be achievable. The main conclusion that this project reaches is that despite hydrogen being the preferred energy source as it produces no waste products and there is a never-ending supply in the universe the technology is currently not advanced enough to make it viable for global use.

ZOE BECKLY- DISSERTATION

Barriers in disability sailing: Can they be overcome?

The aim of this dissertation was to explore the potential barriers to disabled sailing and to consider this both from the provider's and user's perspectives. Four factors; risk, access, training and costs were used to form the main arguments around what potential barriers exist and whether they can be overcome. It was concluded that although many barriers to disabled sailing exist both for the individual and the organisation providing it, cost was the single most important factor that may influence whether an individual with a disability can access sailing. With sufficient funding many of the accessibility issues, organisational and personal risks as well as training issues can be overcome. There will always be some individuals that have disabilities that prevent them from participating in sailing but with sufficient finance and organisations such as the Royal Yachting Association driving the agenda then disability sailing can become a reality for many more disabled individuals.

JOE MARWOOD- DISSERTATION

To what extent is fake news a threat to democratic society?

This dissertation will aim to shed a light on the various threats faced by democratic society in this day and age. With the rise of social media over last decade the spread of fake news is now easier than ever, and it has proven to have the power to significantly influence public opinion of political arguments, which proves to be damaging when the information is false. Therefore, it is worth exploring the ways in which fake news operates and how it is able to spread as quickly and efficiently as it does. The way in which many forms of misinformation are specifically tailored to appeal to the emotional rather than the rational will be explored, as it is through the use of shocking and emotive language that allows many of these fake articles to gain traction within the media space. Social

media and the prominence of the internet is predominantly to blame for this, however the extent to which fake news itself is the greatest threat is potentially up for debate. It is an entirely viable argument that it is the corrupt motives of governments that perpetuate the spread of fake news that prove to be a greater threat in terms of the democratic process. It is important to deduce between the difference between campaigning and outright misinformation, as while both have the intent to discredit the opposition, this dissertation proves that lying to a civilian population is now an option for governments. While in some cases this is done directly, in many it can be seen that fake news is indirectly perpetuated by the governments that seek to use it to their advantage which proves to be the greater threat. This is why democratic values are put somewhat at risk, as through misinformation individuals are in many ways inhibited from making the most educated and personal choice they can, therefore the democratic process is interrupted. Despite this, the varying degrees of fake news from tabloids to outright government corruption must be analysed, many of which will be explored within this dissertation.

At this stage we shall have a short interlude with tea and coffee being served in the dining hall. There will be a chance to meet the students and find out more about their projects.

DAN HILL- DISSERTATION

How influential were the Stonewall Riots on the LGBT+ social reform in the United States?

This project set out to understand the influence of the Stonewall Riots on LGBT+ social reform in the US, intending to conclude whether they were the most significant factor on this movement, or if other aspects were more important. There were three main ideas explored - firstly, the Stonewall Riots as the most influential positive factor on the movement, based on their direct and indirect impacts. The argument that other factors were more influential was also researched – for example, the media, LGBT+ organisations/individuals, politics, and other events in LGBT+ history. Finally, the idea that the Stonewall Riots were detrimental to the American LGBT+ rights movement was investigated. The conclusion reached was that, although highly important, the Stonewall Riots cannot be isolated as the only or most influential factor on LGBT+ social reform in the US. It was emphasised that the media was an extremely significant aspect of the movement both in the influence of the Stonewall Riots and independent of them. Influential individuals and LGBT+ organisations were also highlighted as key elements of the success of the Stonewall Riots and as a driver of the American LGBT+ rights movement overall.

HENRY SKITT- DISSERTATION

Should wolves be reintroduced into the United Kingdom?

The aim of this dissertation is to set out the various arguments for and against reintroduction of wolves to the U.K, specifically Scotland due to it being the best location for a reintroduction project, to combat a rising deer population. This increase in deer is making reforestation attempts in Scotland costly and sometimes pointless as new trees are destroyed before they have a chance to



grow large enough to not be threatened. The discussion considers the Environmental Economic and Ethical reasons wolves should be reintroduced and some of the potential problems a reintroduction program would face from groups such as farmers.

EVIE MCCLELLAND- DISSERTATION

The ethics of drug testing: Can AI overcome the issues?

This project aims to investigate which of the currently used methods of drug testing is the most ethical and whether the introduction of Artificial Intelligence could overcome the issues of each. It shall focus on: animal testing, human drug trials, laboratory grown organs and the possibilities technological development offers moving into the future, whilst also mentioning the ethics of consent and current limitations. Both the benefits and drawbacks of each method will be evaluated focussing on ethics and whether the methods are viable. The potential for AI to overcome these negatives is a major focus of the discussion. This project discusses whether the ethical barriers of using live participants can be overcome by medical technology, and one day eliminate their need all together. Another avenue of research for this project was the possibility of using this technology to reduce the strain of the organ donation crisis. The conclusions reached were that human drug trials are the most ethical method currently available despite their downsides, but that none of the methods discussed would be suitable as a standalone solution. AI cannot at present eliminate all the ethical issues of clinical trials, or remove the need for them altogether; however it can be used in conjunction with current methods to reduce the ethical implications by offering enhanced ways of predicting harmful side effects. AI reduces the risk to participants whilst limiting the number of participants required. This technology is expected to form an integral part of scientific developments and clinical trials moving forwards

DOUGIE ORR- DISSERTATION

Are we doing enough to prevent serious injury in age grade rugby?

The aim of this project was to find out whether enough was being done to prevent serious injury in age grade rugby. The author started by defining their key terms of the title, and then goes on to look at the most common serious injury in rugby: concussion. Next they looked at various measures that the Rugby Football Union (RFU) , the sport's governing body, could introduce to prevent/limit serious injury, these included: the importance of correct tackle technique in injury prevention, the strictness and enforcement of tackle height, and the effects this has on injury risk and finally the effectiveness of bio-banding in injury prevention. Being a rugby player himself, the author found the information relatively easy to find and comprehend. The author discussed should contact rugby be banned in schools, should laws involving tackle height be changed and whether bio-banding should be introduced in the UK. He came to the conclusion that enough is being done to prevent serious injury in age grade rugby, because the injury rate in age grade rugby is not out of control and the measures they have discussed will be too drastic in changing the nature of the game, doing more damage than good to the game of rugby. However, this was with exception to bio-banding, which the author felt would be effective and successful if introduced at reducing injury whilst not changing the game.

IZZY BARROW- DISSERTATION

Is global water security being managed efficiently?

This project aims to evaluate the effectiveness of management in relation to water insecurity, by examining the following efforts; Policies, Government, Organisations, Individual actions. There is a particular focus on the human and physical causes of water insecurity, in which a dominating cause is climate change. The main argument is how ineffective policies are to implement and maintain, in contrast to actions which could be more effective, such as; organisations changing their methods of production and creating restrictions in which all firms have to follow. The 2015 Paris Agreement is a strong factor in this argument, because ideally this would be an effective method of action, however, the joining of this agreement is not mandatory and is known as 'soft power'. This creates a massive issue because big powers like the USA can easily withdraw and thus will no longer be obliged to follow the restrictions on emissions. The author concludes that current management is limited and that the next steps in the coming years will be crucial in determining our position in global water security and areas which remain water stressed. The outcome will be reliant on individual efforts as well as cooperation from businesses.

JAMES SCRIMSHAW- DISSERTATION

Migration: Is this the biggest financial strain on the NHS?

In this project the main focus was to try and find the possible effects migration has and has had on the NHS. It can be difficult to sum up the total effect in which different influential factors have on the overall NHS finance. The project therefore summed up the impacts migration had on the finance of the NHS in comparison to other factors such as aging population and privatisation. The objective was to find the factors that gave the greatest negative effect on the finance of the NHS. From external sources a judgement had to be made for each individual factor on the net effect on NHS finance and whether any migratory influences were involved. From here each factor was weighed up and compared on both the positive and negative effects towards the NHS. This allowed for the overall dominating factors to be identified. This helped enhance possible solutions to be evolved and adjusted to better improve the financial climate of the NHS for the future.

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.