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With the uncertainty for young people because of exam results, STEM Ambassadors have provided stories of inspiration and support. These personal histories reveal that although there are challenges and forks in life's road, determination and courage are important. These stories demonstrate that there is also hope even in adversity. Kirsten's account is particularly supportive as her exam results were impacted by a natural disaster! Young people can also ask their own questions about STEM careers to the South East STEM Ambassadors and also access information and impartial advice. [askanambassador@canterbury.ac.uk](mailto:askanambassador@canterbury.ac.uk)

CV19 has provided many new challenges for the way the STEM Hub operates, but it has had much wider educational challenges for the young people. When the decision was made to close schools and cancel examinations, few understood the modifications this would bring. Exams are an expected part of education and GCSEs and A-levels are transition points that influence the next stages of young peoples' life journey. As a result of the pandemic, this year the outcomes are being felt more strongly.

One of the roles of the STEM Hub is to share life stories and advice from inspirational STEM Ambassadors with the hope to motivate and educate young people in the STEM field. This time we asked STEM Ambassadors if they had advice for the students of 2020. C. Wrights Mills' (1970, p.216) suggestion to use 'life experience in intellectual work as a way to understand the interconnectedness of how society works' was one of the reasons for this request. The other was the value of narratives.

# Narratives

Stories can stir the emotions and both fact and fiction consolidate behaviour, communicate norms, and provide a social function. Telling stories, like honeybees dancing, is adaptive behaviour and is time consuming and uses resources that otherwise could have been saved (Hansen, 1999), but it provides advantages. One advantage is how narratives can contribute to group living and deliver evolutionary advantage as social species prosper better together than alone (Boyd, 2010). Narratives are a method for understanding patterns in nature and are a way of communicating information.

Storytelling in larger group situations enables information to be exchanged about both challenges and opportunities and human evolution has utilised these social elements and become ultra-social, creating settlements that contain millions of inhabitants. Humans are the only living organisms whose adaptive capacity is primarily a learned one (Hurd, 1997). The stories you will read and that be shared on social media are opportunities to learn from others.

# Exams Are Transition Points



Transition points are one of the turning points or forks in the road of life, often outcomes of exams provide pathways or forks that we might not have selected. Sometimes, a transition event can be a turning point, although turning points can only be subjectively identified once a new life path has been established (Hareven & Masaoka, 1988; Wheaton & Gotlib, 1997). The narratives shared here are turning points, although at the time STEM Ambassadors did not identify them as a positive experience but with the passing of these events now seem different.

So read on, at the moment you will not know what the outcomes will be, but do not give up, as Mike said “it is not worth wishing things might have been other than they are. Assume the institutions who did not offer you a place or who withdrew their offers were the losers - not you!”

# What I Would Tell My Younger Self

**"The following is my viewpoint on the nature of exams. If I could talk to my 17 year-old self, who has just done rather badly in his A' Levels, as he is sitting on his bed wondering what his going to happen now, I would say:**

**"It will be alright. Your family love you no matter what. 'Success' is not real. Work and money matter but they are NOT all. And work is NOT like exams. You do not have to remember everything, you get time to: explore, do research, google things, try different approaches. Often it is your failures that give you the best experience and understanding. Now, when I sift CVs for interview, it is the triers, the not 'giving-uppers' that I want. Hope this helps."**

**Thanks,  
Matt**

**PS - keeping your back-up hard-disk in the oven is not a good idea.**

# Not The End of The World

"I hope this can help to reassure a few students, that disappointing exam results are not the end of the world..."

I'm a member of a team of experts at a private company who deliver laboratory testing services and science/engineering consultancy to various government organisations.

I've known people who joined the company as apprentices, with zero qualifications, who have gone on to become senior engineers and leaders in their fields.



Conversely, I've seen people with master's degrees and PhDs flounder and fail. Exam results can sometimes help you get your foot in the door, but they are far from being the be-all and end-all of your career."

Regards,  
Jamie

# Mindset Matters, I Did Not Get The Grades, But This Did Not Stop Me!

“Great employers and companies are also looking for people with the right level of will/mindset to do a role well. While exams can help them see how you perform in a targeted and sometimes pressured environment, it does not tell them everything about you (you could be a great leader as the captain of your football team, you could be an amazing scientist who is great at building practical experiments in your own time).

Some of my best team members to date have not had great exam results, do not come from university backgrounds but instead have a lot of common sense, can work well when they have the time to plan and focus and have built lots of practical work experience up.

I did not get the results I was predicted when it came to final exams at GCSE and A Level, but that did not stop me. I got into an apprenticeship and have worked my way up. My work ethic and willing to learn has taken my career travelling all over the globe and meeting fantastic people. Those results did not change who I am and what I am capable at heart, instead it drove me to prove myself.

Maths is my key STEM skillset and while I could have done better at exams, my knowledge and method of applying my maths skills has not been impacted by my test scores. I use maths in all I do today, as someone who leads global transformation in a FTSE 100 business, so it certainly hasn't damaged my career.”

Regards,  
Scott

# Don't Let Exam Results Define You!

"I'm currently a PhD student and in my cohort some of us got straight As and some straight Cs. If you really want to get there, you can find a way. Use college as a steppingstone, work experience is important too.

**Exams results are not always a true test or reflection of one's ability and potential and this should not define who you are or what your future holds.**

There are always other opportunities available to you so:

don't give up  
don't be discouraged  
don't throw in the towel!

Chin up and take the bull by the horn. Keep pursuing, you have got what it takes to make it happen!"

Regards,  
Abi



Believe

# You Need Determination

“The most important factors in determining your success in life and careers are determination, confidence and a strong work ethic.

Maybe the exam results have not been what you expected, but on the incredible journey of life, it is not those grades that determine your success, it's believing in yourself, having a plan and endeavouring to achieve it & bring your A-game to all of your goals.

How do I know this?

Personal experience, and observation of extremely successful people!”

Regards,  
Atin



# It Happened To Me

"I'm Dr Kirsten Oliver, a leader in the Engineering Company Worley and a mum of a GCSE student so I understand the anxiety that some of you may be experiencing.

I too experienced disruption in my GCSE exams – Living in a country hit by a hurricane, resulting in "grades" being sent out in the November instead of August....we didn't have social media or the level of press coverage we have now, so I was in the dark for 3 months and to this day have no idea how our grades were decided, but we were all safe! As expected, colleges understood, and I started A-levels based on school reports.

I look back and tell the hurricane story, you will all look back as the students who survived lockdown with their parents.... that's worth more than any pass at GCSE or A-level.

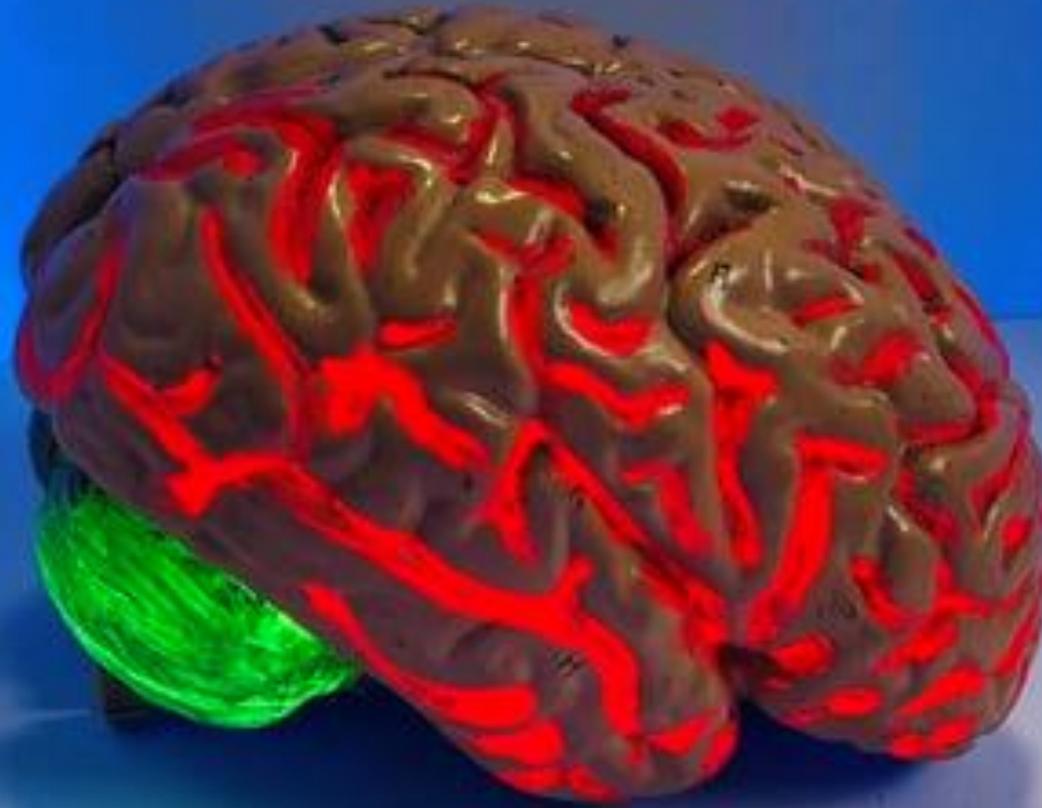
What CV19 has taught us all is there is no easy path and things can change quickly, so good luck with the next step – it's not cast in stone so keep making decisions and keep moving forward in your career choices."

Regards,  
Kirsten

# When The World Changes Use Your Engineering Brain

“A career in engineering is likely to involve several slightly scary changes in direction – because the world changes underneath you - and that world is changing especially quickly right now. In my career I have designed power systems, mobile phones, consumer electronics and medical products. I have worked for large companies, small companies and been a university academic. In Lockdown I find myself writing code to explore Machine Learning.

Fortunately, engineers are usually quite well equipped to cope with rapid change as every new project involves learning new things and is, in a sense, its own change in direction.



At the start of a project we are often not certain that it can be delivered, we may have no idea how to set about it and it can all feel like a huge gamble. We weigh up the options and think through the alternatives, but in the end you sometimes just have to have the courage to start.

If the world forces you to radically change direction, it is not a bad idea to engage your engineering brain.”

Best Wishes,  
Steve



# National Best Student Award



“Back in 1978 I failed my A-levels. Chemistry with a special paper and Physics. Predicted A & B at least and a place at Reading for Applied Zoology. Mocks looked good and I kept working but the results were oddly Unclassified so no advancement from O level.

I got a place at Seale Hayne College in Devon to do Food Technology. What a beautiful place. A farm and college on the hillside on the edge of Dartmoor. A 3-year course with the middle year being industrial placement and little earnings. A college prize and a national best student award as well as the qualification at the end.

A wealth of widespread science knowledge and an interest in really learning and digging into topics that caught my imagination that has stayed with me. The purely academic path is not for everyone and a sidestep can open so many more experiences that give you ideas and a passion for something you never thought of.

Failing my A levels zapped my confidence a bit but doing something I really enjoy has meant I don't regret that failure now by any means. It set me on a path that gave me so many more opportunities even if I didn't take them, including a job offer in New Zealand...now that is one thing I do regret not following especially after being able to afford a fantastic touring holiday down there a few years ago.”

Regards,  
Heather

# Your Passion Will Carry You Through

“When I was taking my equivalent exams to the A-level ones, I got average marks so got entry to an ‘average’ university.

The main reason is that there is always lot of time pressure/stress when sitting an exam, that sometimes stops you from showcasing what you know/are capable of.

However, due to my determination it didn't stop me from getting a PhD, and to now have a senior technical role within Network Rail, noting also that English is my second language.

Hence if you set a goal and you are really determined, you will get there despite any setbacks on the way, as your passion will carry you through.”

Regards,  
Alex

DREAMS  
BIG

# You Have Learnt Skills, Use These

“When going through your school life, one of the key things that the work assigned is trying to teach you is the importance of discipline. Every piece of homework, every essay, every project – all of them had a deadline, all of them had a set of tasks to be completed or a standard to be upheld, all of them required commitment from you.

When you get right down to it, exams aren't necessarily a fantastic way of demonstrating your abilities, or your commitment. But, if you take the commitment you learned from school, and you use that commitment to apply the knowledge you gained from school, then that is a far better test of your capabilities – and it's one exams aren't equipped to show.”

Sincerely,  
T. Murphy

# Apprenticeship Instead Of Exams

"I was in secondary education from 1966-1970 and was expected to go on and take O-levels and then A-Levels and then off to University for a minimum of 3 years. However, things didn't quite work out like that! I got interested in engineering and left full-time education at the end of the 4th year (now Year 10) to take up a 4-year apprenticeship with the Central Electricity Generating Board (CEGB now National Power). I was one of the youngest apprentices they had ever had 15yrs 11months when I started, so I actually had to do an extra month's apprenticeship as I was supposed to be 16 when I started!

I spent four years doing a City & Guilds in 'Industrial Measurement and Control' on block release where I spent two 6-week blocks at Croydon Technical College each year for 4 years. I worked hard and got good grades, so my employers then paid for me to do a 5th year on day release when I spent 1 day and evening per week at Lewisham Tech. Again I worked hard, and got good grades, and so I was permitted to carry on and take ONC and HNC with advanced Math. Having passed that, again with good grades, I was awarded a scholarship by the CEGB to study full-time for a degree at the University of Kent at Canterbury, on full pay! When I went for my university entrance interview as a mature student, they had no idea what an HNC was but checked and allowed me in!

So what looked like a bad choice in 1970 turned out to be a First Class Honours degree in 1981! I returned to full-time employment with the CEGB as a Research Officer in their laboratories at Gravesend, designing high-reliability equipment and real-time computer programs for use inside commercial nuclear reactors.

I believe that my early career path, although unorthodox at the time, set me up well for running my own businesses and helped me appreciate that everyone has a valuable role to play in society. It was hard work and took longer than had I stayed on at school, gained my O-Levels and A-levels but I was earning a good salary after 4 years, once I finished my apprenticeship!

If I had that same choice to make, and was 16 again, I would choose a similar path!"

Regards,  
Ian

# You Have Time On Your Side



“The most important thing here is young folks have time to retake exams.

You are young and have time on your side though sometimes it doesn't seem that way.”

Best regards,  
Neville