



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

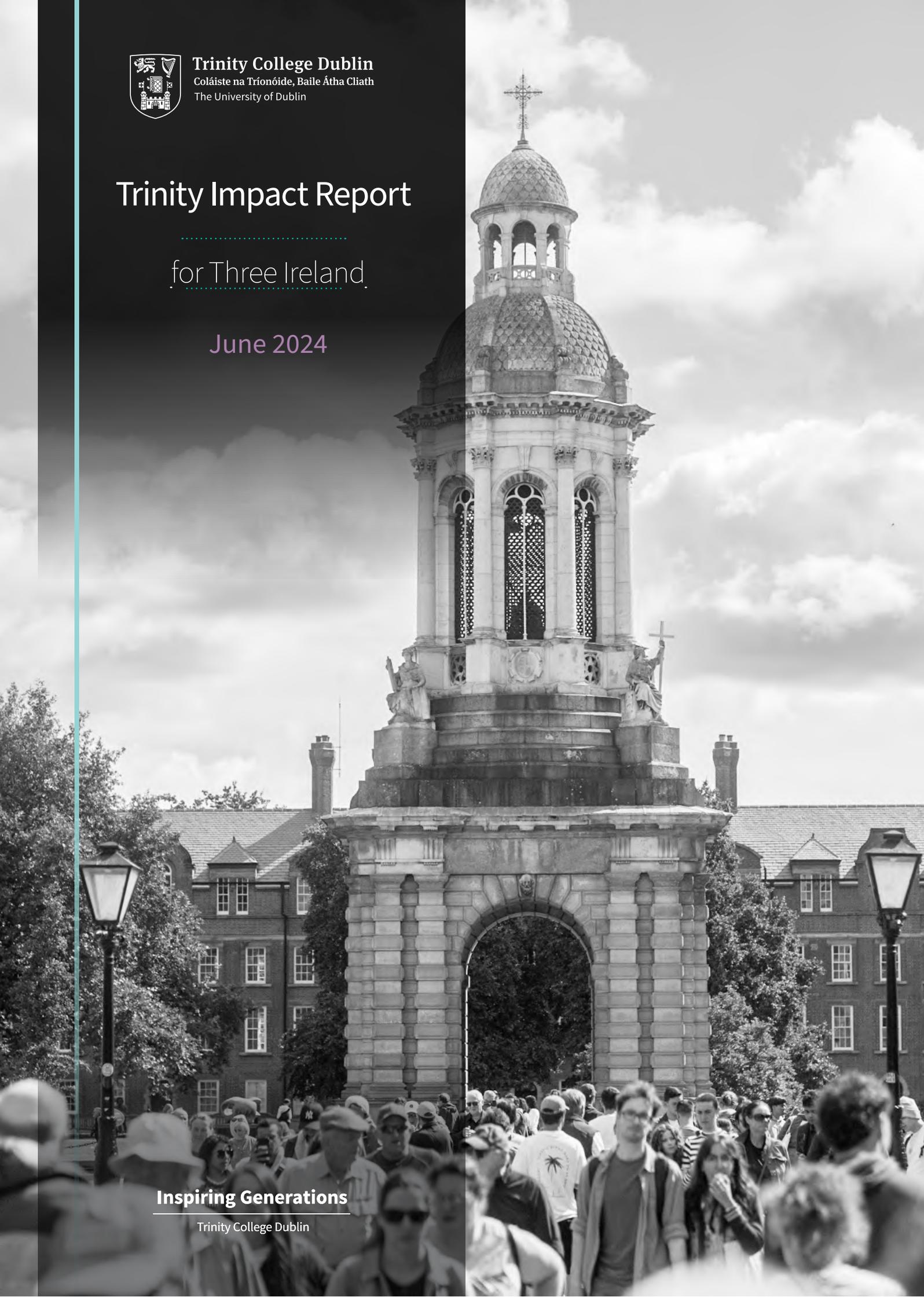
Trinity Impact Report

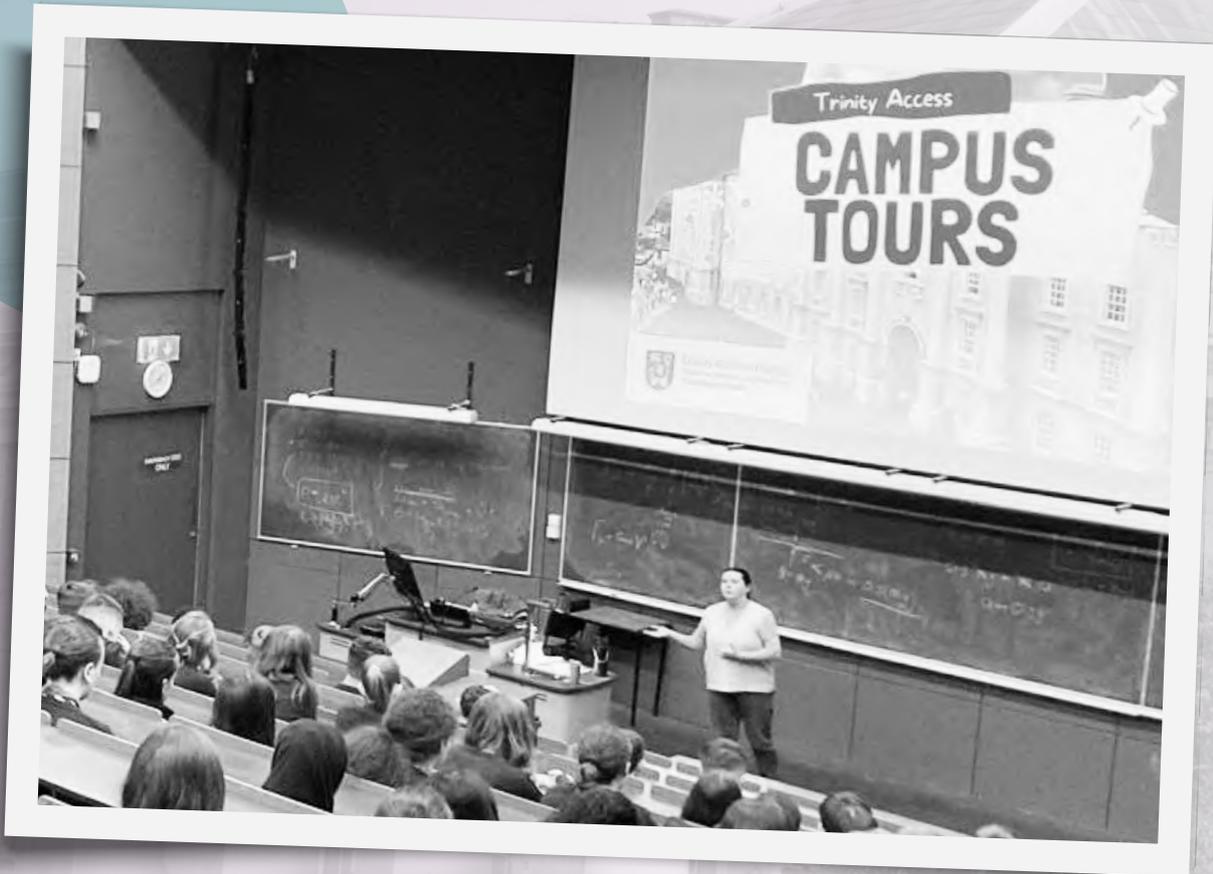
for Three Ireland

June 2024

Inspiring Generations

Trinity College Dublin





Second-year students attending the Trinity Access Campus Tour



Thank you from the Access Maths Project

Dear Robert and colleagues at Three Ireland,

I am delighted to provide you with an annual update on the Access Maths project.

The project is working to support teachers in DEIS schools to support each other as they engage in the use of innovative ways in teaching mathematics so that students are more likely to be enthused with the subject.

Increasing the number of Leaving Certificate students in DEIS schools taking honours maths opens up opportunities for students to consider courses and careers in STEM, so that in the long-term the skills gap is addressed and we can ensure the sector becomes more representative of society as a whole.

Thank you again, your on-going support has been hugely important both financially and in terms of validation of what we are trying to do.

With thanks from all in Trinity Access,

Brendan Tangney

Brendan Tangney

Academic Champion for Trinity Access

Professor in Computer Science



Community of Practice

We were delighted to introduce a new DEIS school to the project St Kevin's Community College, Clondalkin while we continued to work with the five original schools, Colaiste Bride (Clondalkin), Bremore Educate Together Secondary School (Balbriggan), Firhouse Community College (Dublin), Cabinteely Community School (Dublin); Colaiste Mhuire (Kilkenny).

All are either DEIS schools or are situated in areas of socio-economic disadvantage.

This year we had 32 mainstream maths teachers involved in the Access Maths project and two trainee teachers. The teachers have engaged with a co-planning and co-creating series of workshops throughout the year which ran roughly every two weeks.

These sessions were used to develop subject knowledge and support the teachers to incorporate new lesson ideas into their lessons. The focus this year was on developing Units of Learning (UoLs) to teach mathematical ideas to students in a connected, coherent, and engaging manner.

The teachers have been involved in three community of practice events where they shared UoLs and resources which they have used in their classes. We also started an Access Maths newsletter (see Appendix 1) with stories and updates from our community of schools and teachers.



'I feel we are working so well as a team in the department because we meet so regularly. I am learning lots of new teaching styles that I'm using in my own classroom which is fab.' (Teacher)

'It has definitely changed my teaching for the better- some aspects we are still teasing out as a lot of the tasks can take quite an amount of time but we are working on it!' (Teacher)





Trim Residential

We had 28 teachers (involved in the project at the time) attend a 2-day teacher training residential in Trim, Co. Meath in October which looked at many different areas of maths education.

This event provided training on how to use different maths specific software such as GeoGebra, Mathigon and Desmos. There were workshops on maths anxiety, Junior Cycle assessment and the latest developments in generative artificial intelligence to name a few. Julie Anne Lawler, Senior Leadership Lead, Three Ireland & UK gave an incredibly well received workshop on 'Change'.

Access Maths Showcase

In February we delivered our second Access Maths showcase which shared the project aims, lesson plans and resources with the wider maths education audience.

There were over 60 attendees, including teachers from other schools, members of the Irish Maths Teachers Association and staff from Trinity's School of Education. The keynote was given by Jennifer Loftus from the Society of Actuaries in Ireland, who spoke about the society's recent report on gender differences in Leaving Cert Maths results.

Five webinars were held during the year which focused on subject knowledge areas chosen by the teachers.



'In my classroom I try to explain to students that there are times that I will just give them a problem and expect that they will have the skills to attempt it.' (Teacher)

'We have become more collaborative and this has helped the maths department become a better working team as well as ensured that students are experiencing similar teaching and learning in class.' (Teacher)



Maths Fest

660 first year students participated in a maths festival which ran in each of the Access Maths schools during November and aimed to foster an appreciation of mathematics. Activities included exercises in estimation, thinking in 3D (using origami) and simulating Dawrinian lution.

Campus Tour

Almost 700 second years came to Trinity College Dublin during Spring 2024 where they engaged in a campus tour and used their maths knowledge to calculate the height of the campanile on Trinity grounds.



'I did not feel like I was doing Maths – I felt like I was playing a game or completing a puzzle. It was very enjoyable.' (Student)

'I feel like I understand what I am doing instead of just learning off a formula. This makes me feel more confident in Maths.' (Student)

Erasmus+

An exciting new development in the project was the successful Erasmus+ application of Access Maths. This new project is taking the key successes of Access Maths to a European audience and has broadened to incorporate STEM subjects in two of our Access Maths schools, Firhouse Community College and Coláiste Mhuire, Kilkenny. The European schools are in Austria, Czech Republic and Sweden.

Thank you



Dear Robert and colleagues at Three Ireland,

Over the last two years it has been a pleasure to hear about and witness first-hand the remarkable progress of our Three Ireland Connect to STEM scholars.

Adversity comes in many forms whether it is personal, academic or financial and it shapes us all. Trinity's Three Ireland scholars are selected on the basis of their unique and inspirational journeys. Despite their varied backgrounds they have two things in common: they have overcome obstacles to embark on STEM undergraduate programmes in Trinity College Dublin and their educational and extra-curricular achievements make them worthy recipients of these awards.

In this update report we hope we have captured some of the highlights and the impacts of these awards on the recipients and their families. The report demonstrates clearly how Three Ireland's financial supports and positive interventions are making a difference in the lives of talented young people. Many of the scholars speak to the importance of the award in exposing them to alternative STEM careers. Their voices explain how the awards themselves have provided them with the confidence to grasp the future assuredly.

Three Ireland scholars are also influencing their peers. Their presence ensures that STEM in Trinity has a greater diversity of perspectives in lectures, tutorials and societies and that our courses are more reflective of the needs of society as a whole. I look forward to the day when we will have Three Ireland Connect to STEM graduates, and to seeing them starting their professional lives as part of a workforce that understands the value of inclusion, and equality of opportunity.

This has been a wonderful collaborative venture and one that is having a transformative and lasting impact. Thank you for being our partner in this endeavour and for making this happen.

Above all thank you for your support of these students which sends out such a powerful message of belief.

With sincere appreciation,

A handwritten signature in black ink that reads "S Draper". The signature is written in a cursive style.

Prof Sylvia Draper
Dean of STEM



How are the students using the scholarships?

Students report that they are using the scholarships for a variety of reasons, both with course related costs, and day to day living expenses. The costs of travel and accommodation are referenced frequently by the students; the scholarships are helping with day-to-day expenses such as public transport, food/coffee, course-related expenses (laptops, broadband, books, stationery and printing costs) and mandatory course placements.



Student A | Environmental Science and Engineering

'The funding I have received means I can focus on my studies without worrying about an income. This has meant I can devote more time to studying those areas I find more difficult. It has also given me the opportunity to get involved in other aspects of college life. I am an active member of the Trinity Vincent de Paul, I sing with Trinity Singers and am also part of the environmental society. I cannot thank you enough for the incredible support you have given me over the past year, it really has changed my life and has opened up so many opportunities that I would not have been able to consider without it. From the bottom of my heart, thank you.'

Student B | Chemical Sciences

'Your support has given me a financial flexibility and freedom that I've never had before. It helped with my rent and helped me decrease my hours in work so that I could focus on my studies. It has aided my mental health and medication and has made all the difference in my life.'



Student C | Environmental Science & Engineering

'My first year in Trinity has been a lot easier knowing that I am more financially secure and can fund my college year correctly. With the help of Three's scholarship, I have been able to dedicate more time towards my studies without having the stress of employment to financially support myself. The assisting donation has allowed me to comfortably fund my accommodation expenses, which ultimately created a secure, motivating, and positive environment for my first year in Trinity. With this, I have recognised the importance of gratitude and privilege and I will make it my priority to utilise this scholarship for the benefit of my future in engineering. Overall, being in receipt of such a progressive and modern scholarship which strives to encourage and enhance diversity in STEM, truly is a dream come true. I will be able to apply for the top internships available from here on out, with the possibility of going abroad to study and that is all thanks to you. I sincerely thank you for this life-changing donation.'

Student D | Engineering

'With three children attending university, the financial strain on my family has been significant. Your scholarship has not only alleviated some of this burden but has also served as a profound encouragement. It has validated my efforts and ambitions, reassuring me that I am on the right path. This support has allowed me to focus more fully on my studies and less on the financial logistics of education, which has been incredibly relieving for both me and my family.

Beyond the financial relief, your scholarship has also been a moral boost. It reminded me that my aspirations are attainable and that there are people who believe in and support my goals. This has motivated me to engage more deeply with my studies and extracurricular activities, enhancing my overall university experience.

Thank you once again for your support and belief in my potential. It has truly made a significant difference in my life and the lives of my family members.'

Student E | Physical Sciences

'Receiving the scholarship has allowed me to keep the hours I work on the weekends low and truly engage with both the academic and social aspects of college. The financial strain of college on my family had been eased completely. The scholarship has allowed me to provide for myself financially and minimise the financial impact on the rest of my family.

Student accommodation had always been completely inaccessible to me due to the high costs of rent in Dublin. This scholarship has now given me the opportunity to reduce my long two-hour commute for my final years in college where I will need to have frequent access to specialised laboratory equipment to complete my research project. Words cannot begin to express my unending gratitude to Three Ireland. My life has been changed completely. Thank you!'

2023-24 NEWSLETTER



Demystifying Maths

May, 2024/Vol. 001

A recap of this year

Well done everyone on a fantastic second year of our pilot. While its still early days this has been a very productive year with lots of takeaways. This year saw a significant increase in the number of units of learning created. These units are the vehicle for promoting understanding and helping students to see the connections between the topics they are learning. The project aims to keep doors open for students so that they have the choice to progress to third level STEM courses in the future.

August meet

The year started out with our sponsors Three Ireland in August where Julianne did a great job of focusing us on the year ahead and helped us to clarify the project aims. We heard from Lynn about her journey with CBAs and Aibhín discussed how to support students to problem pose.



The residential

It was our second residential and a real highlight from the year. The two days were filled with a range of different workshops. Julianne was on hand again to help us realise the complexities of working with different groups of people. We had input from Emer, Danny & Warren from Oide, who focused on supporting the teachers to use Mathigon, Desmos, CODAP and embrace a geometric way of thinking. Emer from Coláiste Mhuire reflected on the 2023 Junior Cycle maths paper. Aibhín continued the discussion about problem posing and looked at how to introduce Universal Design for Learning into the maths classroom. Seamus continued to champion all the fantastic opportunities afforded from embedding GeoGebra. We had insightful input on maths anxiety from Maria in Mary Immaculate College, Limerick. The residential helped to strengthen relationships and increase collaboration resulting in a more cohesive group. A lot of fun was had by all.



The showcase

In February we had the opportunity to reach a wider audience with the insights from Access Maths. Our keynote speaker Jennifer Loftus spoke about a thought-provoking report regarding gender disparity in the top Leaving Cert maths results. Over 50 teachers came together to partake in workshops delivered by all the Access Maths schools. The workshops showcased some excellent active teaching ideas for teachers to try in their own maths classes.



Student activities

Maths fest took to the road this year and went into each of the project schools during a week in October involving over 600 students. The activities highlighted the maths involved in origami, evolution and different games. The winners from the Access Maths poster competition with the theme of "Maths is Everywhere" received their prizes throughout the week. It was a big hit in all the schools. 2nd year students came to the Trinity Campus during April and used similar triangles to estimate the height of the campanile.



Important dates

1st meeting of 2024/25 school year : August 20th
Residential: October 11th & 12th



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'Every time I see a group of students pass through Front Square, I imagine what is possible. I imagine the lives and opportunities that lie ahead of them. If we can help support those students through university, if we can help them overcome the challenges they face and removed the financial and economic barriers that are blocking them, imagine the impact that they could have on the economy, on society, on health care – on the world.'

Provost Dr Linda Doyle

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