

IMLSN Shared Mathematics Resources Project

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Description

One outcome from a survey on the online presence of maths support centres in Ireland and the UK (conducted in 2018) is that participating Maths Learning Support (MLS) managers “face a number of challenges including institutional control, staff time and skills and a myriad of technical issues.” The authors recommend to consider carefully how to be efficient when developing online resources: “... before an MLS practitioner decides to invest precious time and resources on developing their online presence, they should carefully consider why they are developing these resources. Are there similar resources out there that could be used? ...” [Mac An Bhaird et al. (2020)].

In 2020, as most maths support centres turned to online support due to Covid-19 restrictions, such challenges but also the desire to share resources became apparent. Participants at two IMLSN workshops highlighted this issue as pressing (<http://www.imlsn.ie/index.php/imlsn-workshop-12>).

As a response to this, the IMLSN Shared Mathematics Resources Project was founded. Aim of this project is to curate and collate a choice of online resources to provide easily searchable, reliable and targeted selections of resources organised by themes. The resources are categorised and searchable by

- Subject (maths, statistics, applied maths),
- Topic (foundation maths, calculus, linear algebra, hypothesis testing, etc.), and
- Format (videos, notes, interactive exercises).

The first chapter on Foundation Mathematics was launched in June 2021. Since September 2021 a second chapter on Calculus is available for the community. The project is ongoing. We are gathering feedback from users and aim to develop the existing chapters further and develop more chapters on a variety of mathematical topics.

Impact

This project delivers an impactful return for both the IMLSN and NFETL. During the pandemic, many online maths support resources were created in individual institutions across Ireland. This project provides an easy way to share these resources in a coherent way. The resource will not only be of use to IMLSN members and the students that they help but any mathematics educators in Ireland and their students. This project will leverage the work done to create the rich variety of resources already invested in to give shared solutions to common problems in a way that will maximise their ease of access and use. This project will lead to the enhancement of the practice of Mathematics support across Ireland with immediate effect on its completion.

Going forward

This project is work in progress. It is envisaged to develop further chapters on Linear Algebra, Statistics & Probability, Applied Mathematics, and others. All chapters will be revisited regularly to be developed and improved further, taking feedback from the IMLSN community into account.

Data is being collected to provide insight in the usage of the resources, and we are planning to conduct surveys with IMLSN members, teachers and students to gain insights into the usage as well as ideas and suggestions for improvement. Qualitative research will be conducted to find out how students use the different types of resources.

Aims

The aim of this project is to provide easily searchable, reliable and targeted selections of notes, videos and interactive exercises in key topics in Mathematics.



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Mathematics & Statistics Resources

Here you can find helpful maths resources organised by topics. The resources are collated from various existing and publicly available online resources. They are quick & easy to access, and for most topics you will find each of the following:

- One or more videos,
- Written notes (also available as pdf files),
- Interactive exercises for you to use for practice.

Foundation Mathematics

Numbers

Arithmetic

Algebra

Functions

Trigonometry

Using Your Calculator

Calculus

References

- <http://www.imlsn.ie/index.php/resources-index>
- Mac an Bhaird, C., Mulligan P. & O'Malley J. (2020) Mathematics support centres' online presence: provision in Ireland and the UK in 2018. In: Teaching Mathematics and its Applications: An International Journal of the IMA (2020) 00, 1–20doi:10.1093/teamat/hraa010
- <http://www.imlsn.ie/index.php/imlsn-workshop-12>