



Date: 1/1/2023

Min. Time Commitment: 23 Hours

Expiry Date: 31/12/2025

Breda O'Brien

Active & Reflective Maths Learner Secondary description example

Through engagement in Active & Reflective Maths Learner activities offered by the SUMS (Support for Undergraduate Mathematics & Statistics) centre, and with tutor support, students build effective strategies for learning and communicating mathematics. Students work both independently and collaboratively, gaining insight into the benefits and challenges of each approach. Sessions are designed to build mathematical confidence, strengthen communication skills, and provide valuable experience in teamwork. Students also critically explore online resources such as AI platforms, learning how to use them effectively. This enhances digital literacy and further develops critical thinking abilities.

To earn this badge the student must:

- Attend and actively engage in at least four SUMS support sessions within a single semester.
- Collaborate with peers on at least one maths or statistics task during a SUMS session.
- Critically review a solution to a personal homework question provided by AI, together with a SUMS tutor, and reflect on the learning gained.
- Identify and use appropriate online resources for a course topic and write a brief reflection on the experience.
- Submit an essay on: (a) Individual vs. team-based learning in maths or (b) Best practices for using AI in maths learning or (c) Benefits and challenges of using diverse study tools.

Skills

Communication Confidence | Critical Thinking | Digital Skills | Teamwork

Ciarán Ó hOgartaigh

President, University of Galway





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Communication:Effectively expressed mathematical ideas, solutions, and reasoning - both verbally and in writing. Engaged in clear dialogue with peers and tutors, asking questions and explaining concepts with confidence.

Confidence:Demonstrated self-assurance in approaching mathematical problems, asking questions, and actively participating in learning. Showed resilience and initiative in seeking support and applying new strategies.

Critical Thinking:Critically evaluated a maths solution provided by AI identifying strengths, errors, or alternative approaches. Reflected on the reasoning behind the answer and deepened understanding through analysis and discussion.

Digital Skills:Identified and effectively used appropriate online resources - such as IMLSN, YouTube tutorials, or Al - to support learning in a specific maths or statistics topic. Reflected on the experience to evaluate the quality, relevance, and impact of the resources on mathematical understanding.

Teamwork:Collaborated effectively with peers to solve mathematical problems, share ideas, and support collective learning. Listened actively, contributed constructively, and valued diverse approaches within group work.

Ciarán Ó hOgartaigh

President,

University of Galway

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