



All Ireland Linguistics Olympiad
The Problem Solvers' Challenge

A World
Leading SFI
Research
Centre



<https://ailo.adaptcentre.ie>



Test your mind...

against the world's
toughest puzzles in
logic, language and
linguistics



Run by:



Engaging Content
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HOST INSTITUTION



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

HOST INSTITUTION



Maynooth University
National University of Ireland Maynooth



Could you be Ireland's top young problem solver?

DO YOU THINK YOU HAVE A KNACK FOR LOGIC, LATERAL THINKING AND LANGUAGES? COULD YOU DECIPHER AN ANCIENT SCRIPT, OR DECODE THE LOGICAL PATTERNS OF SWAHILI?

The All Ireland Linguistics Olympiad (AILO) is the problem solvers' challenge. The national contest sees secondary school students develop their own strategies for solving complex problems in unfamiliar languages from around the globe.

No prior knowledge of linguistics or foreign languages is required. Even the hardest problems require only logical ability, patient work and a willingness to think around corners.

AILO introduces students to the application of logic and linguistics (i.e. the study of human language) to problems of language understanding and translation. The goal is to develop students' problem-solving skills and to inspire them to consider the fascinating range of careers at the intersection of computing, language and linguistics.

AILO is run by the ADAPT Centre (<https://www.adaptcentre.ie/>), a research centre that is revolutionising how digital content is adapted, personalised and delivered for the needs of global users. ADAPT brings together more than 200 researchers at Trinity College Dublin, Dublin City University, University College Dublin, Technological University Dublin, Maynooth University, Cork IT, and Athlone IT as well as industry leaders in global digital content. ADAPT is funded by Science Foundation Ireland and co-funded by the European Regional Development Fund.



30,000+

Contestants Since 2009

Compete to represent Ireland in Latvia 2021

AILO has been awarded the European Language Label Award 2020 for its 'AILO at home' project and the very successful transition to online AILO.



Who is eligible?

All second-level students from schools on the island of Ireland are eligible. There are Junior (under 16) and Senior (16 and over) categories, so students can participate at any stage in their second-level studies. Both Junior and Senior Category students take the same puzzles and are marked in the same way. However, we award prizes and trophies for the winners of each category. The overall top four students will be invited to represent Ireland at the International Linguistics Olympiad.

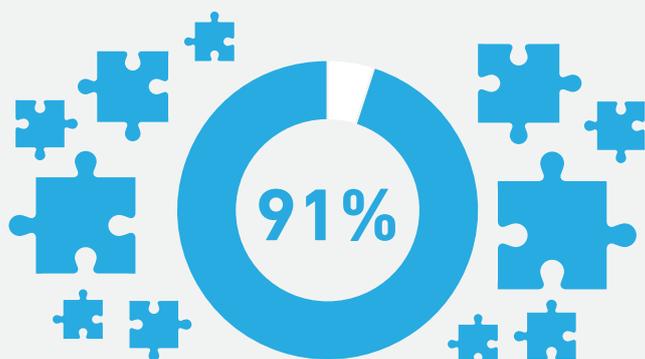
Why take the challenge?

- Most importantly, because it's great fun! You'll enjoy solving the challenging puzzles while learning about the languages of the world.
- AILO's learning outcomes are closely linked with the curriculum and the OECD PISA (2012/5) creative and collaborative problem-solving competencies. The example below shows the links with the Junior Certificate curriculum, key skills and statements of learning. See full details at www.adaptcentre.ie/ailo
- Sharpen your problem-solving skills in our free problem-solving regional workshops. This will benefit you whatever career path you take, but will be particularly useful if you are thinking of a career in Computing, Linguistics, Languages, Engineering, Maths, Science or a combination of these disciplines.
- Enhance your CV or university application form by showing you have a logical mind and an ability to think outside the box.
- Win the chance to represent Ireland at the International Linguistics Olympiad 2021 in Latvia.

Example of AILO Learning Outcomes linked to Junior Cert (JC) Curricula, JC Key Skills & Statements of Learning (SoL) and the PISA Problem Solving Competencies (2012/5)

Students learn about	JC Key Skills	JC Coding	JC Maths	JC SoL	PISA	Students should be able to:
Developing a positive disposition towards investigating, reasoning and problem-solving	✓	✓	✓	SoL 15	✓	1 Discuss the importance of problem-solving skills as a key component in a STEM career.
Seeing patterns and trends in complex logic puzzles in unfamiliar languages	✓		✓	SoL 2, 15, 16	✓	2 Complete logic & AILO puzzles
Problem solving strategies for each of the 6 types of AILO puzzle	✓		✓	SoL 17	✓	3 Recognise features that will make a language rule.
Gathering, interpreting and representing data	✓	✓	✓	SoL 17	✓	4 Understand when and how to use tables and charts to decipher data for each problem type (number systems, semantics, writing systems, phonetics, syntax, morphology.)
Expressing ideas clearly and accurately	✓	✓	✓	SoL 1,18	✓	5 Describe the observations they made about the language with concise and complete rules.
Collaborative problem-solving techniques (National Final, IOL)			✓		✓	6 Monitor and reflect on their learning 7 Work as a team and reflect on their role in the team (National Final, IOL)

What Past Contestants Say



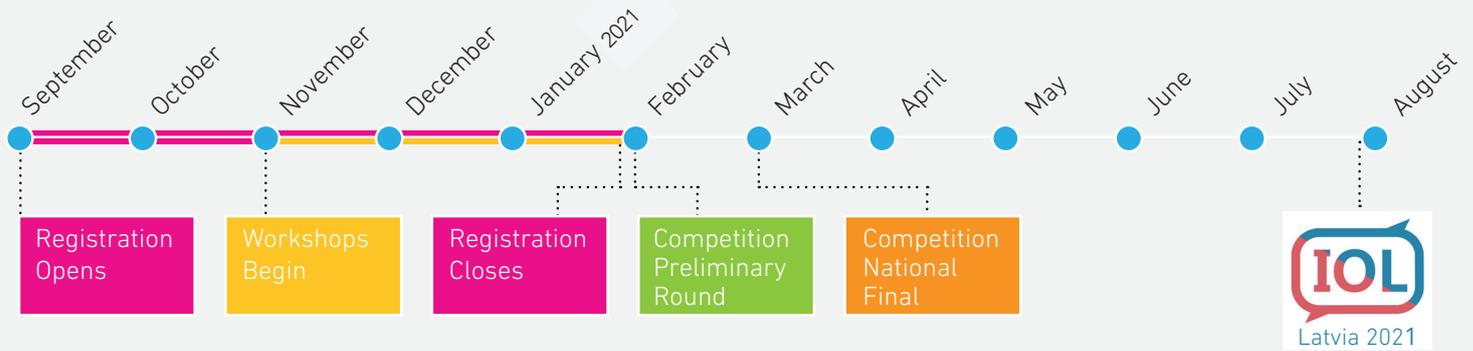
of AILO participants reported that they now have more effective strategies for solving complex problems*

"Being involved with AILO helped teach me some of the necessary problem-solving skills used in software programming. Some of the AILO questions were even used by my lecturers [at DCU] to demonstrate how to approach problems you have never seen before."

Robert Devereux, Amazon Web Services

"I first got involved with the AILO and the IOL last year when I heard about it in my school. It was recommended to me by former IOL contestant Luke Gardiner. I quickly developed a love for this form of problem solving. I enjoyed the experience and so was eager to participate in AILO again, despite having a Leaving Cert to study for!"

Padraig Sheehy, Theoretical Physics, TCD.



AILO Timeline

The AILO season runs from September to March. Registration closes on 22nd January 2021. It is important to register as early as possible to receive monthly training materials and for information on accessing our regional problem-solving workshops. These free workshops will take place online between November 2020 and January 2021.

The Preliminary Round of competition will be held in your own school on 25th January 2021. This round will be taken online under teacher supervision. Online sample tests are available at <https://ailo.adaptcentre.ie/puzzles/>. The top 100 students from the Preliminary Round will qualify to compete at the National Final in Dublin in March 2021 in individual and team competitions. AILO will follow all public health guidelines and run remotely if appropriate.

The top four students from the individual contest will win the opportunity to represent Ireland at the International Linguistics Olympiad (IOL) 19th-23rd July 2021 in Ventspils, Latvia.

International Linguistics Olympiad

Ventspils in Latvia has been selected to host the International Linguistics Olympiad 2021 (IOL 2021). IOL 2021 will bring together 220 of the world's top young problem solvers from 36 countries to pit their wits against the languages of the world. The venue is Ventspils University of Applied Sciences. Students will compete in individual and team contests. The fun-packed week also includes sightseeing, parties and cultural experiences.

For more, see <http://www.ioling.org>

The Problem-Solving Initiative

AILO is a key element of the ADAPT Centre's Problem-Solving Initiative (PSI). This nationwide initiative aims to foster the next generation of problem solvers for Ireland. Supported by SFI, the PSI is designed to: help encourage people of all ages to hone their lateral-thinking skills; raise public awareness of the importance of problem-solving skills across science, the economy and society; and promote career pathways in Science, Technology, Engineering and Mathematics (STEM) for those who enjoy solving problems. For details, see www.problemsolving.ie

Register Now!

Teachers and individuals can register online at <https://ailo.adaptcentre.ie>



Try out this sample puzzle for yourself!

NĪ XĪHUĀN FOOTBALL MA?

Chinese words are written in symbols (“characters”) that represent meaning rather than sound, and the Chinese writing system consists of thousands of these characters. When writing foreign names in Chinese, a selection of these characters is used based not on what they mean, but on how they sound. In the table below you will see how some names of English football teams are written in Chinese. The transliteration system is not entirely straightforward however:

- (1) Generally each character represents a syllable (V, CV or CVC), but
- (2) some English consonant combinations are not possible in Chinese, so they are split into two syllables, e.g. “spin” might be “s(u)+pin”.
- (3) Chinese does not have the same set of vowel and consonant sounds as English, so some sounds are mixed up – you probably know that R and L sound the same to a Chinese speaker. There are a few other pairs like that.
- (4) Finally, sometimes meaningful characters are used instead of phonetic ones. For example, in the Chinese for “Liverpool”, the sign for “pool” is used – it’s not pronounced “pool”.

Study the following examples. Remember that the renderings are phonetic: they are based on pronunciation, not spelling.

阿森纳	Arsenal	莱斯特城	Leicester City
阿斯顿维拉	Aston Villa	利物浦	Liverpool
博尔顿	Bolton	曼彻斯特城	Manchester City
切尔西	Chelsea	米德尔斯堡	Middlesbrough
富勒姆	Fulham	纽卡斯尔联队	Newcastle United
利兹联队	Leeds United		

To view the solution to this problem, and to try out more puzzles, visit <https://ailo.adaptcentre.ie>

(1) Identify the following four names from the list of seven possible answers given on the right.

- a. 曼彻斯特联队
 - b. 物阿米姆
 - c. 埃弗顿
 - d. 查尔顿
- Birmingham
Blackpool
Charlton
Doncaster
Everton
Manchester United
Preston

(2) How do you think the place name Boston would be written in Chinese?

(3) Fill in the table below showing the correspondence between individual characters and English sounds

森	
	KA
西	
	LA
顿	



Have you got what it takes to represent Ireland at the International Linguistics Olympiad 2021?

Could you be Ireland's top young problem solver?

Enter the search for Ireland's top language decoder at <https://ailo.adaptcentre.ie>

Win the opportunity to represent Ireland at the International Linguistics Olympiad 2021!

The International Linguistics Olympiad 2020 will take place in Ventspils, Latvia from 19th - 23rd July 2021. There, the top 4 Irish problem-solvers will test their wits against talented language sleuths from around the world during a week packed with puzzles and social and cultural experiences. For details, see www.ioling.org

The All Ireland Linguistics Olympiad (AILO) is run by:

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"I wouldn't exchange this opportunity I had to represent Ireland for anything, it was a great honour, and was not short of phenomenal."

**Claire O'Connor, Bronze Medallist,
International Linguistics Olympiad 2016**

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Problem-Solving Initiative

