



AIOLO

All Ireland Linguistics Olympiad
The Problem Solvers' Challenge

www.adaptcentre.ie/ailo



Test your mind...

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



Run by



Engaging Content
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Problem-Solving
Initiative



An Roinn Cultúir,
Oidhreacht agus Gaeltachta
Department of Culture,
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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 for Digital Content Technology (www.adaptcentre.ie). ADAPT is a multidisciplinary academia-industry research centre funded by Science Foundation Ireland (SFI) and comprising 150 researchers at Trinity College Dublin, Dublin City University, University College Dublin and Dublin Institute of Technology.



22,500+
Contestants Since 2009

**Compete to represent
Ireland in South Korea**



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.

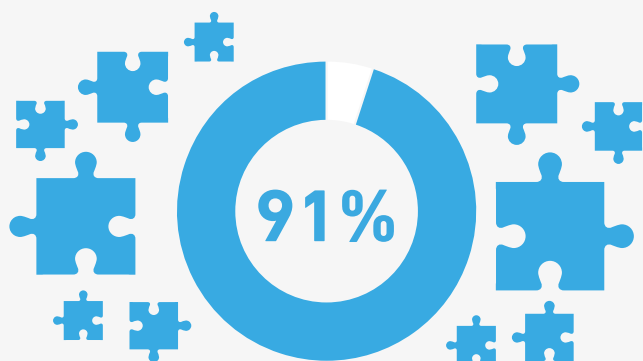
Why take the challenge?

- 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 2019 in South Korea.

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



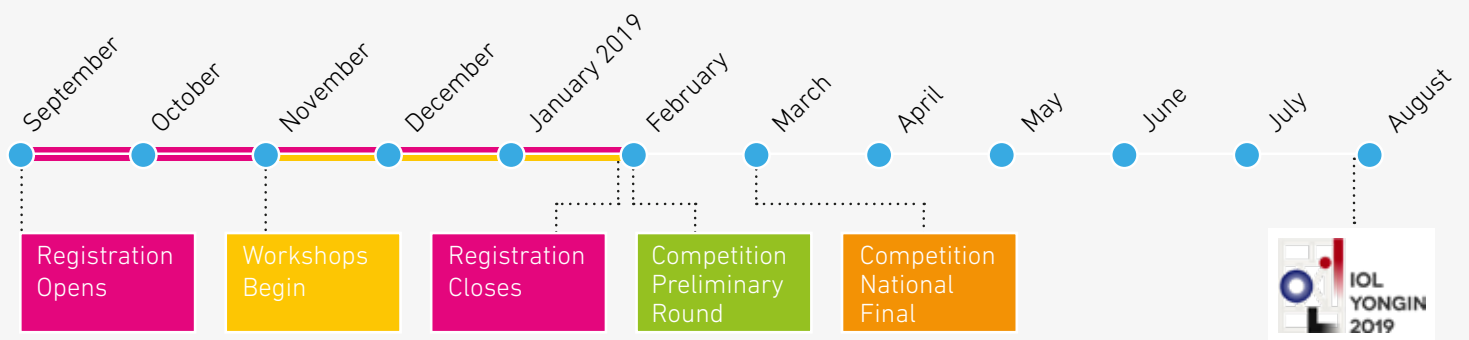
of AILO participants reported that they now have more effective strategies for solving complex problems*

"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 24th January 2019. It is important to register as early as possible to receive monthly training materials and for information on attending our regional problem-solving workshops. These free workshops will take place in multiple locations around Ireland between November 2018 and January 2019.

The Preliminary Round of competition will be held in your own school on 29th January 2019. The top 100 students from the Preliminary Round will qualify to compete at the National Final in Dublin in March 2019.

The top four students from the individual contest will win the opportunity to represent Ireland at the International Linguistics Olympiad (IOL) 29th July – 2nd August 2019 in Yongin, South Korea.

International Linguistics Olympiad

Yongin in South Korea has been selected to host the International Linguistics Olympiad 2019 (IOL 2019). IOL 2019 will bring together 180 of the world's top young problem solvers from 30 countries to pit their wits against the languages of the world. The venue is the HUFs Global Campus in Yongin. 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 www.adaptcentre.ie/ailo



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 www.adaptcentre.ie/ailo

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

- | | |
|-----------|-------------------|
| a. 曼彻斯特联队 | Birmingham |
| b. 物阿米姆 | Blackpool |
| c. 埃弗顿 | Charlton |
| d. 查尔顿 | 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 2019?

Could you be Ireland's top young problem solver?

Enter the search for Ireland's top language decoder at www.adaptcentre.ie/ailo

Win the opportunity to represent Ireland at the International Linguistics Olympiad 2019!

The International Linguistics Olympiad 2019 will take place in Yongin, South Korea from 29th July to 2nd August 2019. 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

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