# The AP Linguistics Initiative Visits the 2019 International Linguistics Olympiad (IOL) REPORT

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# **Executive Summary**

In an effort to offer an Advanced Placement course on Linguistics in high schools in the United States, Loosen and Heinz traveled to the International Linguistics Olympiad (IOL) in Yongin, Korea in July 2019 to survey and speak with team leaders, students, and parents to learn how students in those countries discover linguistics, and how linguistic education is supported. Ultimately, 29 countries were represented in the survey.

Key findings are as follows.

- 1) With few notable exceptions, most countries do not offer long-term institutional support for linguistics education in K-12 and there are many obstacles to establishing such support.
- 2) National and regional Linguistics Olympiads, such as the North American Computational Linguistics Open competition (NACLO), the United Kingdom Linguistics Olympiad (UKLO) and others, play essential and transformative roles in bringing linguistics to young people. They provide motivation and goals for high school clubs and teachers. They provide learning materials and activities. They also attract academically competitive students whose parents can and do influence local support.
- 3) Many students discover linguistics via a local champion in their schools who garnered local administrative and external support at least in part by referencing national and international olympiads such as NACLO and the IOL.
- 4) Once young people learn about linguistics, online resources become increasingly important because they seek out materials online on their own initiative.
- 5) Many countries are interested in this report and in contributing to an international effort to improve linguistic education for young people.
- 6) There are several strategies that can be explored for increasing institutional support for high school linguistics education, which can be pursued at local, national, and international levels.

# **Background**

The goal of the Linguistic Society of America's AP Linguistics Committee is to draft a successful proposal to the College Board (CB) for the creation of an AP Linguistics course and examination for U.S. high schools (HS). One of CB's key requirements is that the proposal document demand, specifically that it provides attestation by 250 U.S. HS's of their willingness to offer the course. As of Spring 2019, there were approximately 15 HS teachers in the United States who have created and taught stand-alone linguistics courses. Therefore the first aim of the AP Linguistics Committee is to increase the number of HS linguistics courses being taught.

Richard Larson, Professor of Linguistics at Stony Brook University and chair of the LSA's AP Linguistics Committee, outlines the following goals in service of this task:

- 1. Identifying and reaching those students that Linguistics appeals to,
- 2. Identifying and training those teachers potentially interested in delivering linguistics at the HS level,
- 3. Consulting with parents of students and finding out what their experience with Linguistics is, and what level of support they currently find for their children's interests,
- 4. Persuading administrators to offer a Linguistics course.

A precursor of the North American Computational Linguistics Open competition (NACLO) was first held in 1998 at the University of Oregon with 18 student participants. Today NACLO involves 1600-1800 HS students every year at over 70 sites in the United States and Canada. It is the most successful linguistics K-12 outreach program in these countries. Its top performing participants represent North America at the annual International Linguistics Olympiad (IOL). The IOL is one of 13 International Science Olympiads for secondary school students, and has been held annually since 2003. In 2019, the IOL was held in Yongin, Korea with 53 teams competing from 35 countries with over 200 student contestants. Each country has its own internal mechanisms and national and/or regional competitions to bring students to the IOL every year. The AP Linguistics Committee can, therefore, learn a lot from the students, parents, teachers, and coaches at the IOL.

LSA members Suzanne Loosen and Jeffrey Heinz (SL&JH) visited the 2019 IOL at the HUFS Global Campus in Yongin, Korea from July 29 to August 2 as observers for the AP Linguistics Committee. They conducted interviews with IOL attendees, including team leaders, students, and parents to learn more about how individuals in other parts of the world learn about linguistics, and how their educational institutions promote linguistics, if at all.

This document reports their findings.

### **Survey Details**

SL&JH developed two written surveys, one for team leaders and one for students, to guide the interview process. The questions are included as appendices to this report.

Interviews with individual team leaders lasted anywhere from 15 minutes to 45 minutes and typically were about 30-40 minutes. Interviews with students tended to be shorter, lasting approximately 10 minutes.

SL&JH realized early that they would not have unlimited access to all participants. The IOL operated according to a busy schedule. Time was the largest obstacle limiting the information they could collect. SL&JH prioritized speaking with team leaders over students and were mindful of team leaders' and contestants' priorities (doing well in the IOL competition). To compensate, SL&JH also made their survey available online towards the end of the competition and encouraged participation via the team leaders' WhatsApp channel.

SL&JH collectively recorded in-person interview responses from 26 team leaders representing 22 countries and 7 students representing 3 countries. Additionally online interview responses were recorded from 5 team leaders representing 5 countries and from 24 students representing 13 countries. Altogether, the following 29 countries were represented in the survey: Australia, Brazil, Bulgaria, Canada (both Anglophone and Francophone regions), China, Colombia, Denmark, Estonia, Finland, Hong Kong, Hungary, India, Ireland, Japan, Latvia, Malaysia, Nepal, Netherlands, Poland, Romania, Russia, Slovenia, Spain, Sweden, Taiwan, Turkey, UK, Ukraine, and USA.

Additionally, SL&JH informally spoke with parents of students and collected additional, anecdotal information this way.

### **Findings**

#### What kinds of institutional support exist for teaching linguistics at the HS level?

Most respondents reported that there is no support for linguistics education in high school. Most countries at the IOL have no linguistic courses taught in the schools, but there are linguistics clubs or periodic extra-curricular activities centered around linguistics. Some countries, such as the USA and Russia, have some schools which offer courses in linguistics as electives, at least some of the time. Finally, a few countries have curricula that include linguistics courses, or material, as we detail further below.

In most cases, the presence of linguistics in schools is due to a 'local champion' who brings linguistics to students, sometimes with overt administrative or external support. For example, in Russia and the USA, when linguistic courses are taught in some schools at some times, it is usually because there is a motivated teacher with a good working relationship and shared values with local educational leadership. The IOL itself is a catalyst for such local champions to emerge when opportunities for external or administrative support occur. For example, the Microsoft office in India was looking to support the education of young people, and preparing students to participate in the IOL fit into that mission. A team leader for India, who works at Microsoft, was able to connect the dots, and win Microsoft support for IOL teams from India.

One obstacle that the 'local champion' models face is sustainability. Without long-term institutional commitments, local champions are volunteers whose support is subject to the changing winds of local administration and/or external support. For example, because Microsoft support for the IOL team in India is not permanent, there is now an effort to secure long-term institutional support from a public research institute to primarily support the IOL team, with Microsoft playing a secondary role.

As mentioned, there were notable exceptions to the 'local champion' model. Sweden, for instance, has a linguistics course on the books in its national curriculum as an elective, though it is only actively taught at a few high schools. Hungary integrates linguistic concepts as part of its language curriculum from 5<sup>th</sup> grade through 9<sup>th</sup> grade. For example, in 5<sup>th</sup> grade, there are units

on phonemes and the phonemic inventory of Hungarian. The 6<sup>th</sup> grade curriculum covers morphological concepts, including inflectional and derivational morphology. In 7<sup>th</sup> and 8<sup>th</sup> grades, there are units on syntax, complex sentences, historical linguists, sound change, the Uralic languages, and loanword stratification. The 9th grade curriculum moves more towards rhetoric, but also includes aspects of sociolinguistics and pragmatics.

In Estonia, Linguistics is becoming obligatory in teacher preparation programs, there are Language Days in schools, some teachers are already offering Linguistics courses, and there is a year-long online course where students can study linguistics if the class is not offered at their high schools.

In Slovenia, 33,000 students from third to twelfth grade take a national test in logic that includes a linguistics problem. There is a general awareness of the IOL for all Slovenian students because of the national logic test, from which 40-50 students are invited to lectures and training for the linguistics olympiad. Teachers are given professional development opportunities with linguists. It was noted, however, that it would be challenging for an individual teacher to create their own course on the topic because of the strict nature of the national curriculum.

### What are some of the obstacles to introducing linguistics into High Schools?

Several obstacles were mentioned. First and foremost, several countries specifically cited the national bureaucracy as an obstacle. This is because most countries have a national curriculum, which means that the creation of new courses is a bureaucratic and political process. Others noted difficulty in adding new material to an already-packed curriculum. Another commonly mentioned obstacle is the recruiting and training of teachers for the new curriculum.

#### How is linguistics promoted?

The most common response drew on the connections computational linguistics has to artificial intelligence and information technology. This seems to resonate because it promises good jobs or making the country more competitive. Ireland team leaders put this particularly poignantly: they said "65% of jobs that current K-9 students will have do not exist yet." The connections to studying technology and artificial intelligence is also emphasized by India, Nepal, Poland, and Taiwan.

However, there was significant variation. In some countries such as Denmark, Russia, Slovenia, and Turkey, among others, linguistics is promoted for students who excel in math or for gifted students in general. In Sweden, they argue that linguistics is a necessary part of a complete education in the humanities. In Bulgaria, the slogan is "Linguistics creates friendships." Language is fundamentally about community.

In other places, linguistics is promoted by showing how it aligns with national priorities. For example, in some countries, it is a stated national priority to promote minority or marginalized languages (French in Canada; indigenous languages in Taiwan). In other countries, it is a stated national priority that students should do well on certain international assessment exams. In the

UK, linguistic education is seen as a way to help students improve on foreign language assessments. Also the British Academy specifically supports UKLO because it recognizes a linguistic education's contributions to reading skills, critical thinking, writing skills, and creativity, which are additional priorities.

### What kinds of HS students does linguistics appeal to?

There appear to be two groups of students who were identified, which could be broadly categorized as language lovers and math lovers. Students in both groups enjoyed problem-solving.

#### How do HS students find out about linguistics?

In general, it was common to hear about students having been introduced to linguistics through national competitions equivalent to NACLO in North America, and all students interviewed confirmed that they have gone on to learn more about linguistics since their exposure through national competitions.

In the US, most students learned about NACLO from a teacher or school staff member. One US student had heard about NACLO from two independent sources: his mother and the librarian at his school. NACLO has been perhaps the most successful tool in the U.S. for promoting linguistics, through the leadership of Drago Radev, Lori Levin, and Aleka Blackwell. Since its inception in 2007, thousands of students have come to learn about linguistics as a field, some becoming especially passionate and going on to become linguists themselves.

In interviews, it was common to hear about students seeking more information about Linguistics from sources like Wikipedia and YouTube channels. In reflection on the LSA's Wikipedia Edit-a-Thon at recent meetings, this time was well-spent as evidenced in the Wikipedia being a direct conduit of information from linguists to teens.

# **Next Steps**

#### **Questions moving forward**

There was much interest in this survey and many team leaders requested the report. How do we best extend this international conversation, learn from each other, and share resources?

As the AP Linguistics committee creates the unit resources, there is an international audience who will want access, so determining where these resources will be hosted online and how information about their location is shared will be important.

Because of the challenges of starting a linguistics course in a school, the idea of creating an after-school club is a good starting place for teachers who want to be involved, especially if the teacher is partnered with a local linguist. Determining good ways to reach teachers directly will be significant, as well as garnering support and time from linguists willing to serve as mentors and guest speakers.

#### IOL reflection

Even though most countries don't have linguistics being taught directly as a subject to students in the high schools, the awareness that some countries have created about linguistics as a topic of study is inspiring. The prime conditions to spread this work quickly in a country are a small population size and a national curriculum open to including linguistics.

In the U.S., the growth of NACLO and the potential of creating an AP Linguistics course works on creating general awareness and accessibility in linguistics as a course of study. IOL appeals to school administrators because it shows that there is an international community with a competition and infrastructure already in place. Some schools are already invested in olympiad opportunities and offer math or science related clubs and opportunities, and there is an overlap in the students who are seeking out math-related olympiad opportunities and linguistics-related opportunities. It is a matter of working to share more about the linguistics-related opportunities with more schools and students.

In some places, gifted and talented coordinators have become interested in linguistics as a way to provide enrichment study for the students they work with. In Tennessee, for example, the idea of competing in the Middle Tennessee State University Linguistics Olympiad run by Aleka Blackwell was an idea that spread among gifted and talented coordinators, with students visiting campus on a Saturday to solve linguistics puzzles and doing a number of activities relating to language with college students while their puzzles were being scored. It is this idea-spreading that is of most interest to the AP Linguistics committee because that is the key to the work right now in expanding from 15 to 250 high schools in the U.S. offering a course to their students. Dr. Blackwell reports that she started her competition's marketing efforts by calling school offices and inquiring about a teacher who would potentially be interested in bringing students to participate.

In Denmark, there was a talent camp where the Danish students competing at the IOL had heard about linguistics. A 19 year old student noted that since studying linguistics, "Indeed, a whole new world has opened. I now see culture through language."

The role of charismatic individuals and connections between interested people is key to making this work more prominent. If you are reading this report, you have a role to play in idea-sharing and cross-pollinating. It is through relationship-building and access to information and resources that AP Linguistics will become a reality.

#### Further research

There is immense potential and need for more work to be done in this area of expanding the role of linguistics in K-12 education worldwide. As an annual event that brings together team leaders and students from around the world, there will be more opportunities at the IOL for people to come together to continue to network and share best practices about what is happening in different countries. The competition of the IOL highlights the best of what olympiads can be, with friendships forming through a common interest and networks strengthened.

A series of focus groups at the next IOL with both team leaders and students represented would be another way to gain insights and strengthen connections moving forward. The creation of an online meeting social network is another way to potentially continue conversations and share questions and successes around the world in real time.

Much will or won't happen based on people who decide that this is their work and define time to do the relationship-building and information-sharing necessary to talk to students and teachers about linguistics.