



# AILO

All Ireland Linguistics Olympiad  
*The Problem Solvers' Challenge*

## **AILO 2023 Sample Set Two** **(based on National Final / Round Two** **Level 2015)**

### **Questions and credits**

- A. Possible Evenki words
- B. Finished with Finnish
- C. Phàasàa and Pháasaă

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## Question A: Possible Evenki words (10 pts)

All languages typically have restrictions on the kinds or number of consonant combinations that are possible in their words. Such restrictions on possible combinations of sounds in a word of a language are known as **phonotactic constraints**. For example, in English a word can begin with the consonant sequence *spl* or *spr*, but not *slr*. So we could say that *splem* and *sprem* are possible English words, even if they don't actually exist, but *slrem* could not be. The rules for combining consonants differ depending on the place in the word, e.g. at the start or at the end.

Examine the following Evenki words focusing on the phonotactic constraints that seem to apply to this language. Your task is to determine whether the list of forms following the examples are possible Evenki words or not given the restrictions suggested by the data on how sounds can combine to form words in Evenki.

Evenki is an endangered Tungusic language spoken by 28,000 people in Inner Mongolia and Heilongjiang in China. Words are shown in phonetic transcription, with letter values pretty much what you would expect. English translations are shown for information only, and have no bearing on the solution.

<i>hunatpa</i>	'the girl'	<i>bira</i>	'river'
<i>girki</i>	'friend'	<i>amtan</i>	'taste'
<i>avsa</i>	'box'	<i>agdy</i>	'thunder'
<i>aglan</i>	'meadow'	<i>atyrgan</i>	'old woman'
<i>gurgakta</i>	'moustache'	<i>dasna</i>	'roof'
<i>dolbo</i>	'at night'	<i>bilga</i>	'throat'
<i>dylgan</i>	'voice'	<i>kilup</i>	'club'
<i>amnga</i>	'mouth'	<i>ollo</i>	'fish'
<i>tygde</i>	'rain'	<i>hulla</i>	'blanket'
<i>halka</i>	'hammer'	<i>anngani</i>	'year'

Are the following forms possible Evenki words? Please tick the appropriate box in your answer book 'yes', 'no' or 'don't know' if you are unable to determine based on the data.

- |                    |                    |
|--------------------|--------------------|
| (a) <i>stilga</i>  | (f) <i>davla</i>   |
| (b) <i>dongkit</i> | (g) <i>gydard</i>  |
| (c) <i>bagdaka</i> | (h) <i>anaran</i>  |
| (d) <i>bargi</i>   | (i) <i>urekent</i> |
| (e) <i>trygan</i>  | (j) <i>gdollo</i>  |

## Question B: Finished with Finnish

(20 pts)

Finnish is spoken by about five million people worldwide, mostly in Finland. It is unrelated to English, but closely related to Karelian and Estonian. One of the most obvious grammatical differences between Finnish and English is the large number of cases – distinct forms that a noun may take according to how it fits into the overall meaning of the sentence, used in places where English uses prepositions such as ‘in’ or ‘of’. For instance, to say ‘in Turku’ they use what is called the ‘inessive’ (‘in-being’) case of the name *Turku*, and to say ‘of Turku’ they use the genitive, *Turun*. The challenge in this problem is to work out the rules for forming inessive and genitive forms. All the nouns in the table below are regular, and illustrate some (but by no means all) of the rules. English translations are given for your information, but have no bearing on the solution.

Pronunciation guide: *j* is pronounced like ‘y’ in *yes*

*y* is a vowel pronounced like *u* in French or *ü* in German: like the ‘ee’ in *seem* but with lips rounded

*ä* is a vowel pronounced like the *ä* in German, a long open ‘e’

a double letter indicates that the sound is pronounced long

Meaning	basic form	inessive	genitive
basket	<i>rove</i>	<i>ropeessa</i>	
bath	(a)	<i>kylvyssä</i>	
bit	<i>bitti</i>	<i>bitissä</i>	
coat	<i>takki</i>	<i>takissa</i>	<i>takin</i>
cupboard	(b)	<i>kaapissa</i>	(c)
dollar	<i>dollari</i>	<i>dollarissa</i>	<i>dollarin</i>
forest	<i>metsä</i>	<i>metsässä</i>	(d)
handle	<i>ripa</i>	<i>rivassa</i>	<i>rivan</i>
house	<i>talo</i>	<i>talossa</i>	<i>talon</i>
library	<i>kirjasto</i>	<i>kirjastossa</i>	<i>kirjaston</i>
material	<i>vaate</i>	(e)	<i>vaatteen</i>
medicine	<i>lääke</i>	<i>lääkkeessä</i>	
mother	(f)	<i>äidissä</i>	
need	(g)	<i>tarpeessa</i>	
rat	<i>rotta</i>	(h)	
stick	<i>keppi</i>	(i)	
street	<i>katu</i>	<i>kadussa</i>	
thinker	(j)	<i>älykössä</i>	<i>älykön</i>
Turku (a city in Finland)	<i>Turku</i>	(k)	<i>Turun</i>
vision	<i>näky</i>	<i>näyssä</i>	

Write the Finnish words (a) to (k) in your answer book.

## Question C: Phàasàa and Pháasaă (20 pts)

Shan (native term: Phàasàa Tái,  $\text{ဖားသီးတီး}$ ) and Lao (native term: Pháasaă Láaw,  $\text{ພາສາລາວ}$ ) are Tai languages from Southeast Asia.

Shan is spoken in Myanmar and Thailand by about 3 million people, and Lao is spoken in Laos and Thailand by about 20 million. They are quite closely related, but are essentially mutually incomprehensible due to grammatical changes in both languages. Similarly, they are both written in writing systems that descend from the ancient Sanskrit script Brahmi, but these writing systems have rather different ways of marking the same sounds. The Shan writing system is a modification of the alphabet used by Burmese and Mon, whereas the Lao script is a streamlined form of the Thai alphabet.

Note: the diacritics (accent marks) above the Shan and Lao vowels in the English transcription of the native terms for the two languages shown above serve to mark tone. The doubled vowels indicate long vowels.

**C1.** In the data below determine what goes in the blanks in the Shan and Lao columns; write your answers in the answer book. (14 pts)

Shan	Lao	English	Shan	Lao	English
$\text{တဝ်း}$	$\text{ທ້ອງ}$	belly	$\text{လိတ်း}$	$\text{ເລືອດ}$	blood
$\text{လုၵ်း}$	$\text{ລູກ}$	child	$\text{လၢင်း}$	$\text{ຊ້າງ}$	elephant
$\text{မၢၵ်း}$	$\text{ໝາກ}$	fruit	$\text{မိတ်း}$	$\text{ນິດ}$	knife
$\text{ဖး}$	$\text{ພ້າ}$	large knife	$\text{သၢ်}$	$\text{ຊ້າງ}$	left
$\text{ဆိဝ်း}$	$\text{ເນື້ອ}$	meat	$\text{ဆး}$	$\text{ນ້ာ}$	mother's younger sibling
$\text{ဆွၵ်း}$	$\text{ນອກ}$	outside	$\text{ဂၢပ်း}$	$\text{ກາບ}$	pith
$\text{ဂၢၵ်း}$	$\text{ຮາກ}$	root	$\text{လိၵ်း}$	$\text{ເຊືອກ}$	rope
$\text{လိတ်း}$	$\text{ແດດ}$	sun	$\text{သိဝ်း}$	$\text{ຊື້}$	to buy
$\text{ဂိဝ်း}$	$\text{ຄ້ຽວ}$	to chew	$\text{လိၵ်း}$	$\text{ເລືອກ}$	to choose
$\text{တၢၵ်း}$	$\text{ຕາກ}$	to dry in the sun	$\text{ဂွတ်း}$	$\text{ກອດ}$	to embrace
$\text{ဂူ}$	$\text{ຮູ້}$	to know	$\text{တဝ်း}$	$\text{ຕອກ}$	to pound

*Question continues on next page*

Shan	Lao	English	Shan	Lao	English
ပိတ်,	ແຜດ	to roar	သွတ်း	ຊອກ	to seek
တိတ်,	ແຕກ	to split	လုတ်,	ດູດ	to suck
လိဆ်.	လိပ်	tongue	ပိတ်,	ປີກ	wing
မိ.	ໄມ້	wood	ဂုး	(a)	bad
မွတ်,	(b)	to crouch	လာတ်း	(c)	to pull
(d)	ແປດ	eight	(e)	မ້ာ	horse
(f)	ပျီອກ	rind			

**C2.** Of the symbols in the table below, which do you think represent consonants, which vowels, and which tones? Tick the appropriate box in the table in your answer book. (6 pts)

Shan	(a)	း	(b)	း	(c)	း
Lao	(d)	း	(e)	း	(f)	း