

# The UK Linguistics Olympiad 2022 - Round 1

## Problem 9. Tseltal (25 marks)

Tseltal is a Mayan language spoken by about 590,000 people in the Mexican state of Chiapas. Below are some Tseltal sentences about what people ate, along with their loose English translations. Sg. and pl. are short for singular and plural.



**Note:** A chicken comb is the crest on top of a chicken's head. A tamale is a traditional Mesoamerican dish, made of dough that is steamed in a corn husk or banana leaf. An avocado is a fruit that has a large seed and green flesh with green to purple or black skin. As an avocado ripens, it becomes significantly softer; unlike other fruits, however, it does not become sweet. Panela is a block of unprocessed brown sugar. A tortilla is a thin, circular flatbread usually made from maize rather than wheat, as many other breads are. A radish is a crunchy vegetable with a sharp flavour often used in salads. Marrow is a fatty substance found inside bones, sometimes spread over bread or vegetables. Greens refers to green leafy vegetables that cook down into a mushy mass.

	Tseltal	English
1	la jti? te stsalub mute	I ate the chicken comb.
2	la jwe? kaxlan waj	I ate bread.
3	la achik' kaxlan waj ta kajpe	You (sg.) ate bread soaked in coffee.
4	la slo?ik chab	They ate honey.
5	la ati? ?ich	You (sg.) ate chili peppers.
6	la ak'ux kajan	You (sg.) ate my corncob
7	la jwe?tik jwajtik	We ate our tortillas.
8	la sk'ux chenek'	She ate beans.
9	la slo? manko	She ate a ripe mango.
10	la jk'ux te mankoe	I ate the unripe mango.
11	la slo?ik jlo?baltik	They ate our bananas.
12	la ati? te mute	You (sg.) ate the chicken.
13	la ak'ux kalwanextik	You (sg.) ate our radishes.
14	la swe?ik te pats'e	They ate the tamales.
15	la sk'ux yaskal	She ate her panela chunks.
16	la jchik'tik te ya?lel ti?bale	We ate the meat soup.
17	la jk'ux tik awajanik	We ate your (pl.) corncob.
18	la awe? te waje	You (sg.) ate the tortillas.
19	la sk'ux bok	She ate raw greens.
20	la jti? awich	I ate your (sg.) chili peppers.
21	la jlo? te ?one	I ate the ripe avocados.
22	la sti?ik te yo?tan mute	They ate the chicken heart.
23	la sk'ux yonik	She ate their unripe avocados.
24	la alo? achab	You (sg.) ate your (sg.) honey.
25	la sti? sejkub wakax	She ate cow liver.
26	la sk'ux sp'olik	She ate their popcorn.
27	la ati? sti?bal mut	You (sg.) ate chicken meat.

Your name:



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**Q 9.1** One of the foods above is an exception: the phrase(s) with this food do not follow the normal rules that determine the rest of Tseltal phrases. Which food is it? On your answer sheet, write your answer in English.

Here are some more words in Tseltal:

28	<b>k'in</b>	kidney
29	<b>tsukum</b>	stomach
30	<b>chin bak</b>	marrow
31	<b>k'oxox</b>	toasted tortillas

**Q 9.2** Translate the following sentence into English: **la jti? sk'in wakax**

**Q 9.3** Translate the following sentences into Tseltal:

- a) You (pl.) ate cow stomach.
- b) They ate her meat.
- c) You (sg.) ate your (pl.) ripe avocados.
- d) I ate the panela chunks.
- e) She ate my cooked greens.
- f) You (pl.) ate the bean soup.
- g) We ate the dough

**Q 9.4** One of your friends is learning Tseltal. He translates "I ate marrow" as **la jti? chin bak**, and he is told that this one is not correct: the correct form has a different word instead of **jti?**. What is this other word?

**Q 9.5** Another Tseltal learner translates "She ate your (sg.) toasted tortillas" as **la swe? ak'oxox**, but it turns out that this translation is incorrect: the correct form has a different word instead of **swe?**. What is this other word?

**Q 9.6** Given that **ixim** means "maize," what plant does **kaxlan ixim** translate to in English?

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## Solution and marking.

Scoring: (max 58)

See the general principle in Problem 6.

- Q9.1: 2 points for either English or Tselal. (max 2)
  - accept *pepper*, *peppers*, *chili peppers*
- Q9.2: 1 point per word (max 4)
  - accept *kidneys* for *kidney* and *cow's* or *cows'* for *cow*.
- Q9.3: 1 point per word or word-part (separated by +) (max 40)
  - as in the worked example of 9.3a
  - No points for *la*
  - For 9.3c, the data should specify *ripe* avocados, but this was missing from the version that was issued for the exam. Hence the two acceptable answers listed.
- Q9.4: 2 points per word-part (max 4)
  - used with soft things
- Q9.5: 2 points per word-part (max 4)
  - used with hard/individuated things
- Q9.6: 4 points for the correct answer (max 4)
  - lit. "non-indigenous maize", also parallel between **kaxlan waj** (bread) : **kaxlan ixim** (wheat): **waj** (tortilla) : **ixim** (maize)
  - 2 points for *wheat maize*.

Q9.1	chili pepper (ʔich) (this is classified as a meat).	2
Q9.2	I ate cow kidney.	4
Q9.3	(a) la a+tiʔ+ik s+tsukum wakax # 1+ 1 +1+1+ 1 + 1 = 6	(d) la j+k'ux te ʔaskal+e 5
	(b) la s+tiʔ+ik s+tiʔ+bal 6	(e) la s+loʔ j+bok 4
	(c) la a+loʔ a+won+ik 5 or: la a+k'ux a+won+ik	(f) la a+chik'+ik te yaʔlel chenek'+e 7
Q9.4	j+loʔ	4
Q9.5	s+k'ux	4
Q9.6	wheat	4

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## Commentary

- There are several different words for “eat”:
  - **tiʔ** for meats (meat, liver, kidney, chicken comb, heart, and also chili peppers)
  - **loʔ** for mushy things (boiled greens, avocado, banana, honey)
  - **k’ux** for hard, crunchy and/or individuated things (radish, panela chunks, nuts, toasted tortilla, corn, popcorn, beans)
  - **weʔ** for breads (tamale, tortilla, bread). It can also sometimes be used as a more general verb for eating, but that is not relevant to this problem.
  - **chik’** for soups and things soaked and eaten (meat soup, bean soup, bread soaked in coffee)
  - and also **buts’** for things that dissolve in your mouth and **ts’uʔ** for chewy things with pulp (only sugar cane and corn stalks), neither featured here
  - Some nouns, such as “greens” and “mango”, take **loʔ** when they are cooked/ripe, and therefore soft, and **k’ux** when they are raw/unripe, therefore hard/crunchy/individuated.
- **la** = perfective [cannot deduce]
- Inflection:
  - Verbs (specifically, transitive ones) and direct objects are given the same suffixes/affixes to denote the person/number of the subject or of the possessor, for the verb and direct object respectively.
  - 1st person: **j-**, with **jʔ > k**
  - 2nd person: **a-**, with **aʔ > aw**
  - 3rd person: **s-**, with **sʔ > y, sch > xch**
  - Number: 1st person plural is **-tik**, 2nd/3rd person plural is **-ik**, unpossessed plural is **-etik**
- Definiteness: **te** NP-e
- **-bal** is a nominalizer: **tiʔ eat meat > tiʔbal meat** and **loʔ eat mushy thing > loʔbal banana**, suggesting that *dough* must be **weʔbal < weʔ eat bread**.

Note: you may see a similarity in **tiʔ eat meat > tiʔbal meat** and **loʔ eat mushy thing > loʔbal banana**.

Sources:

[Categories of Eating in Tzeltal and Navaho \(uchicago.edu\)](https://site.inali.gob.mx/publicaciones/diccionario_multidialectal_en_tseltal.pdf)

[Tzeltal \(Mayan\) Noun and Verb Morphology | International Journal of American Linguistics: Vol 14, No 2 \(uchicago.edu\)](https://site.inali.gob.mx/publicaciones/diccionario_multidialectal_en_tseltal.pdf)

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