How to write an explanation – Updated September 2023

At Round 2, you will be asked to "explain your solutions" to some of the later questions on the paper. What exactly does this mean, and how do you do it?

An explanation to a linguistics problem takes the form of a short piece of writing (usually no more than a page) that explains how the language in the problem works, at least to the extent that you can work out. This might include explaining what different suffixes and prefixes mean and how they are used, as well as what order words come in. However, what you actually need to write will depend on the problem – this is where most of the difficulty comes from.

There are some general principles to bear in mind:

- ***Be complete.*** Too many people lose marks for not describing things like word order. You should be able to answer the questions at the end of the problem with just the explanation and a dictionary, so you should explain everything that is relevant.
- ***Be detailed.*** If you were describing English, you would likely get no marks for simply saying that "plural is usually marked with (e)s" without specifying that it's a suffix, and saying when it is -s vs. -es.
- ***Be general.*** If you ever find yourself writing out a long list of words or affixes that are exceptions to some rule, there will always be a pattern behind them. The marks will almost certainly be for finding that pattern.
- ***Be clear.*** Explanations that are filled with long, winding sentences are hard to understand. Subheadings, tables, and lists are invaluable when trying to make explanations clear and concise.
- ***Be thoughtful.*** Think about what you need to write. For instance, if the problem is about how different types of verbs behave, you should probably say which verbs are in which category, either by describing a general pattern (e.g., verbs of motion vs verbs of position), or by explicitly listing them; if all nouns behave the same, you don't need to list them all.

Below, you'll find a pdf of some example student explanations to problems 3, 4 and 5 on the 2023 R2 paper, with short marker's comments. They all scored full- or nearly full-marks, but more importantly, all are achievable. They also all have some things in common:

- ***Tables***. Some have much more prose than others, but they all use tables of some sort to present information concisely. This also makes it easier to make sure you've not missed any small details.
- ***Terminology***. None use fancy words that aren't necessary, but they all use accurate linguistic terminology when it makes the explanation clearer.
- ***Structure***. All of them flow well. Most use subheadings, some use bullet points or whitespace, but all clearly show where each bit of the solution is being discussed. Again, this makes it easier to list all of the small details.
- ***Length***. Most of them were fairly short, although not quite as short as the official solutions. Although this isn't always a good thing – there can be a lot to write down – it tends to show that the solution understands the systems in the problem, and isn't just a list of words and exceptions to rules.

Not only did these points make them easy to mark, they made it easier for the competitors to check that they'd written down everything they needed to. Clarity of thought is key to success in the harder levels of UKLO.

Explanation Q3 (Pular)

Word Order is Subject Verb Object

Noun Class. → the problem presents 4 noun classes (there may be more outside the dataset) with their own plural forms and articles.

the endings

Class	Singular		Plural	
~~People/professions~~	ending	definite article	ending	definite article
People/professions	-wo	on	-be	ɓen
Animals	-ru	ndun	-ji	ɗin
Plants/fruit	-re	nden	-je	ɗen
Inanimate/other	~~none~~ —	on	-ji	ɗin

In all cases, a noun ending comes after a long vowel, except inanimate singular, where there is no "ending", and the final vowel is short. This vowel is lengthened ~~of~~ before -ji in the plural form.

The definite article follows the noun. There is no indefinite article.

Verbs ~~can~~ in this problem ~~are~~ show distinction between transitive and intransitive, forming the following table

	Transitive	Intransitive/reflexive	Passive
Present	-a	-oo	-ee
Perfect tense	-i	-ii	-aa

A verb can become a noun, e.g. ɓa to cook → someone who cooks, i.e. a chef, by removing the ~~tense~~ suffix and replacing with the ɓ suffix oo, ~~and then~~ followed by the "people" ending ɓ-wo, i.e. janna → jannoowo, etc. The process is reversible only for nouns that ɓ that are in the "people/professions" class.

Pular

Noun endings are as follows:

	singular	plural
human	-wo	-be
animal	-ru	-ji
inanimate	Ø	-ji (with the vowel before reduplicated)
plant (i.e. fruit or vegetables)	-re	-je

The word order is SVO. (placed after the noun)

The definite article is as follows:

	sg	pl
human	on	ben
animal	ndun	ɓin
inanimate	on	ɓin
plant (i.e. fruit or vegetables)	nden	ɓen

Verb endings are as follows:

	present	perfect
transitive (i.e. with object in sentence)	-a	-i
intransitive (no object in sentence)/ reflexive	-oo	-ii
passive	-ee	-aa

These are added to the end of the verb itself.

To substantivise a verb, To make a verb from a noun, remove the final vowels of the noun root and place normal verb endings. E.g.

jannoo- = teacher

jann- = to teach

Alternatively, place -roo at the end of a verb root for substantivisation.

Marker's comment

These both scored full marks (and there were several other full scores as well!). As is good practice in these sorts of sentence-based questions, it is clear where the solutions are discussion the word order, as well as different parts of speech (nouns, articles, verbs). Lower scoring solutions often did not make this distinction, spreading the discussion of nouns and verbs throughout the explanation. A well-structured presentation makes it easier to not miss out any details.

Both used tables to give the verb suffixes and noun classes. In fact, they actually have incredibly similar structures, as did all solutions that scored highly on this problem. The only real difference was that the first used slightly more prose. Both even gave examples to supplement the explanation – sometimes a good idea, to make the markers are understanding you correctly!

Both used a good amount of technical language: *noun class, article, (in)transitive,* and *perfect* are all word we would expect top-level competitors to be comfortable with even if they aren't necessary to score full marks. One solution did actually recognise the *active/middle/passive* voice system, which was a nice surprise but definitely unnecessary.

Q4 (page 1)

To convert from orthography to transcription.
First consider ng & th one letter.
Then consider ~~V(owels) & C(onsonants~~ Vowels & Consonants separately.
Start from the end. Syllable structure is (C)CV(C)
↑ the coda.

1. Take the last consonant left and convert it to the coda (if there is a consonant ~~(s)~~ at the end)
   If the first consonant of the following syllable ~~skip~~ this is a nasalised stop, skip this step except for m & n.
2. Take the vowel (if at the end) and convert it to the nucleus. Otherwise, convert Ø to the nucleus.
   (If there are no letters left & there is a coda, change the coda to that initial consonant and place ə after it.)
3. Take the last consonant and convert it to an initial consonant. If the last remaining letter is a vowel, convert Ø to initial consonant (or if no letter left)
4. If the ~~third~~ initial consonant is r and the vowel is not ə, take the ~~new~~ last ~~letter remaining~~ it consonant ~~(s)~~ and convert it to an initial consonant.
5. Place ~~your~~ syllable boundary and repeat.

(Conversion table on next page)

Q4 (page 2)

Vowels	Phone
ä	æ
ü	y
a	a
e	e
i	i
u	u
ø	ə
o	ɔ if no coda ʁ if coda

Consonant	Coda	Initial
th	θ	ð
b	ⁿp	ᵐb
g	ᵑk	ᵑg
f	ɸ	ɸ
k	k	k
m	m	m
d	ⁿt	ⁿd
n	n	n
r	ɾ	ɾ
w	w	w
y	j	j
t	t	t
z	ʦ	ʧ if vowel not ə/u ʦ if vowel ə/u or if followed by ɾ
nz	ⁿʦ	ⁿʤ if vowel not ə/u ⁿdz if vowel ə/u or if followed by ɾ
∅	NA	ʔ

Q4.3 ~~To establish the phonetic transcription from the orthography, do as follows~~

Page 1 orthography > phonetic transcription / in the environment of

Each syllable must have an onset and vowel (V) nucleus. The onset may only consist two consonants (C) if the second is [r]

The coda must be an unvoiced phoneme if two or three are possible from the given transcription, or ~~it may~~ be [m] [n] [r].

Given the onset's necessity, ∅ > ? / V_V or #_V

All voices plosives and affricates are nasalised, with the nasal corresponding to the plosive's or initial sound of the affricate's place of articulation

To decide on syllable structure, working from the end of a word, the final letter of the orthography is the final ~~letter~~ phoneme of the transcription.
This is preceded by the vowel written before it, or as is always the case when no vowel is written [ə]
[ə] should be added as few times as possible, within the following rules and any written above

nasal consonants may only follow vowels, [m] or [n] (or a word boundary)

[r] is only permitted as the second consonant of the onset when the nucleus is other than [ə]

All syllables must have an onset, and ? should be inserted as few times as possible and never when the previous

cont. →

Q4.3 → cont. Page 2

syllable has a coda. This precedes the requirement for as few [ə] as possible

Otherwise, all phoneme-transcription correspondences are as follows

Orthography	Phoneme	Notes
m	[m]	
n	[n]	
f	[ɸ]	
th	[θ]	as coda
th	[ð]	as onset
s	[s]	
p	[p]	
b	[ᵐp]	as coda
b	[ᵐb]	as onset
t	[t]	
d	[ⁿt]	as coda
d	[ⁿd]	as onset
k	[k]	
g	[ᵑk]	as coda
g	[ᵑg]	as onset
y	[j]	
r	[ɾ]	
z	[ʦ]	onset, preceding [ɾ] or [ə]
z	[ʧ]	onset, preceding any other
nz	[ⁿʦ]	as coda
nz	[ⁿʣ]	as onset, preceding [ɔ] [o] [y] [u]
nz	[ⁿʤ]	as onset, preceding any other
Ø	[ʔ]	explained previously

precedence over n, then z

cont. →

Q4.3
→ cont.
Page 3

Orthography	Phoneme	Notes
a	[a]	
i	[i]	
e	[e]	
o	[ɔ]	When syllable has no coda
o	[o]	When syllable has coda
u	[u]	
ü	[y]	
ä	[æ]	
∅	[ə]	explained previously

Marker's comment

Both were nearly perfect solutions to a fairly unpopular question. In phonology problems like this, it is most important to realise which features are most important (here, it's most syllable structure and nasality) and focus on them, as in both of these. Bullet points are often especially good for this kind of problem.

The first gives a very clear algorithm to follow to do the conversion. The second, while still getting all of the key points, is a bit harder to follow (which shows as they also scored lower on the actual task, making several small mistakes). Note that, unlike for Q3, both are much longer than the official solution. This is very much to be expected – the official solution was not written under time pressure, after all.

Both also use accurate linguistic terminology and symbols. Both have a clear knowledge of the basics of phonetics, using terms like *voiced/voiceless* and *nasal* accurately. Although this isn't necessarily something we need at R2, it would be expected of the highest scorers on a sounds-based question like this. Terms like *onset, nucleus* and *coda* to describe a syllable are definitely beyond what we expect from a R2 candidate, but help make the solutions clear.

Both also finished with tables showing all of the symbol conversions. This wasn't strictly necessary in the cases where there was no change in symbol, but it shows a laudable attention to detail. Both lost the same mark, not quite getting the right vowels triggering the changes from **ts, dz** to **tʃ, dʒ**.

word order:

~~SVO~~ S O V

morphology

SUBJ + ___ + OBJ + verb + ___
0 (under the first blank)
tá (negative)
ka (under the second blank)
∅ (negative)

	SUBJ	OBJ
1 (sg)	n	
1 (PL)	to	to
2 (sg)	o	ko
2 (PL)	lo	lo
3 (sg)	a	lo lo
3 (PL)	ba	la la

(under OBJ: the first form is marked "not neg.", the second "negative (didn't)")

accents

~~to indicate 'today' if it's a negative sentence (didn't)~~
objects never have accents.
~~accent marks~~
for verb, first vowel stays same in every case, all other vowels may either be accented or not.

subjects never have accents.

Today

in negative sentence, sentence ends in 'today' if there are no additional accents (on non constant vowel in verb or subject)
if there are accents on verb (as described before) then there is no 'today' at end.

in normal sentences,
verb never has additional accents and subject.
there is 'today' if
'O' does not have accent.

there is no 'today' if
'Ó' does have accent.

5) Verb structure: $S - M_1 - O - V - M_2$

S

subject	affix
1S	n
2S	o
3S	a
1P	to
2P	lo
3P	ba

O

object	affix
Ø	Ø
1S	?
2S	ko
3S	(l)o
1P	to
2P	lo
3P	(l)a

For 3rd person object:
affirmative - include "l"
negative - exclude "l"

M_1

modality	affix
affirmative	o
negative	ta

M_2

modality	affix
affirmative	ka
negative	Ø

V is verb stem

Tone

Affirmative

S high tone
M_1 low if "today", high if not "today"
O low tone
V < Initial tone determined lexically
Non-initial low tone
M_2 low tone

Negative

S Low tone
M_2 high tone
O low tone
V initial tone determined lexically
V non-initial all high if not "today"
all low if "today"

Marker's comment

Both perfect solutions, and once again, all high-scoring solutions had very similar structures. It is often good advice in morphology problems like this to structure your solution around the order that the morphemes appear in, rather than what they mean, as both of these have done. Then other processes (here, the tone marking) are discussed later.

The first used sentences to describe the more intricate parts of the solution, while the second appears to have used as few words as possible. However, both are equally easy to follow.

The main difference between them is the use of technical language. The first uses key words like *negative, subject, object* accurately, as we would expect of a R2 candidate. This is all that is necessary, as the rest of their explanation awards them full marks. The second seems very comfortable with more advanced words and phrases (describing one tone as "determined lexically" where the first says it "stays [the] same in every case").

The first also shows a common mistake in UKLO explanations. They begin by giving the word order, even though each Mongo word consists only of one word. This is a common occurrence that regularly confuses markers.