

# 2011 Solutions

## (F) Tiger Tale (1/3)

This problem requires a rather different kind of reasoning—jumping into real (and somewhat messy) data with few guideposts to mark your way—than most NACLO problems, but it is a kind of reasoning that is increasingly important in international-level Linguistics Olympiad competitions.

As a general strategy, you need not know exactly what a word means to determine something about it. (You can, for example, pick out which things in a sentence seem to be verbs, which things are noun phrases, etc., even if you don't know what they refer to.) This sort of reasoning —by the distribution and co-occurrence of words rather than by their meaning—is central to the way computers figure out the structure of texts. (After all, your computer wouldn't be able to match up the word *llama* with a real llama, and your grandmother probably may not know what a Pikachu is, but both can work out that these words refer to things rather than actions by the kinds of words that can go around them.)

In this problem, the most important insights come not from comparing the English and Indonesian texts, but by looking carefully at word co-occurrences in the Indonesian text. Certain words, like *di* and *pada* and *pukul* and *kata*, systematically co-occur with phrases of certain types (like dates, places, names, etc.).

The English text was given not because you could match up the Indonesian and English—you can't. You can tell pretty quickly that they're not translations of one another; they clearly contain different facts about the case. The English text just gives you some facts to start from: knowing that Palembang is a place, Udin Bolu is a person, that September 3rd was a Thursday, that the tiger's name is Sheila, etc.

### F1.

From the parallel phrases “*Syamsuddin alias Udin Bolu*” and “[\*\*\*\*], known better as Udin Bolu”, we can conclude that [\*\*\*\*] should be replaced by **Syamsuddin**.

### F2.

Given that the police are so central to this story, we expect there to be some word corresponding to English **police**; luckily it's the direct loan *polisi*. *Harimau* is, by its occurrence in the title, also a central concept in the story, and the parallelism between Sumatran tiger and *harimau Sumatera* (followed by the species name *panthera tigris Sumatrae*) is a dead giveaway that *harimau* is **tiger**. Since we know that the tiger was named Sheila, the phrase *harimau bernama Sheila* means that *bernama* probably means something like **named**. (And it does; *nama* = name.) *Jumat* is clearly a day of the week from Jumat 28 Agustus 2009, but which day is it? We know, however, that September 3<sup>rd</sup> was a Thursday, and thus the **Friday** before that was August 28<sup>th</sup>.

### Answer:

a.	polisi	police
b.	harimau	tiger
c.	bernama	named
d.	Jumat	Friday



# 2011 Solutions

## (F) Tiger Tale (2/3)

F3.

We know from the English article that there is a place called Palembang, South Sumatra, so *Palembang, Sumatra Selatan* tells us that “south” is probably **Selatan**. For “said”, a good place to look in a newspaper article is in between what look like people’s names and quotations, and there is just such a word in this position, **kata**. Using the same reasoning as in F2. d. (*Jumat*), we can deduce from *Rabu*, 2 September 2009, that Wednesday is **Rabu**. Finally, **juta** is only used after currency numbers, and given that we know we’re dealing in sums at or over one million Rp, it is the most likely word for *million*.

**Answer:**

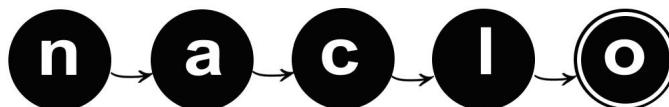
a.	south	<b>Selatan</b>
b.	said	<b>kata</b>
c.	Wednesday	<b>Rabu</b>
d.	million	<b>juta</b>

F4.

Palembang is obviously a location; we can tell that just from the English. *Sabtu* is, like *Rabu* and *Jumat*, also a day of the week, as we can see from *Sabtu* (22/8). *Kapolubes Jambi* is a person—more specifically, it is Mr. Addoe’s title in the Jambi police force. (The probability tips towards it being a person rather than a place because *Kapolubes Jambi* says (*kata*) something at the end of the article.) *Minggu dinihari* is another time or date, specifically the early “Sunday morning” when the killing took place. The clues here are the preposition *pada*, which is used with the other dates, and *pukul*, which occurs with times. (It means “hour” or “o’clock”.). *Syamsuddin*, as discovered above, is a person. *Sungai Maram, Kota Jambi* suggests that *Sungai Maram* is a place in *Kota Jambi*; that this phrase is preceded, like other places, by the preposition *di* is another reason for believing it to be a place. *Kebun Binatang* is clearly the name of something, but what? That it is likewise preceded by *di*, and followed again by *Kota Jambi*, suggests that it is another place. (It means, in fact, “zoo”; *Kebun Binatang Taman Rimba Kota Jambi* is the name of the *Kota Jambi* zoo.)

**Answer:**

	<b>Persons</b>	<b>Locations</b>	<b>Times or Dates</b>
a.	Palembang	X	
b.	Sabtu		X
c.	Kapolubes Jambi	X	
d.	Minggu dinihari		X
e.	Sungai Maram	X	
f.	Syamsuddin	X	
g.	Kebun Binatang	X	



# 2011 Solutions

## (F) Tiger Tale (3/3)

### **Grading:**

F1: 25/7 points for the correct answer.

F2: 10/7 points per correct answer.

F3: 10/7 points per correct answer.

F4: 5/7 points per correct answer.

Total: 20 points

