

Week 12

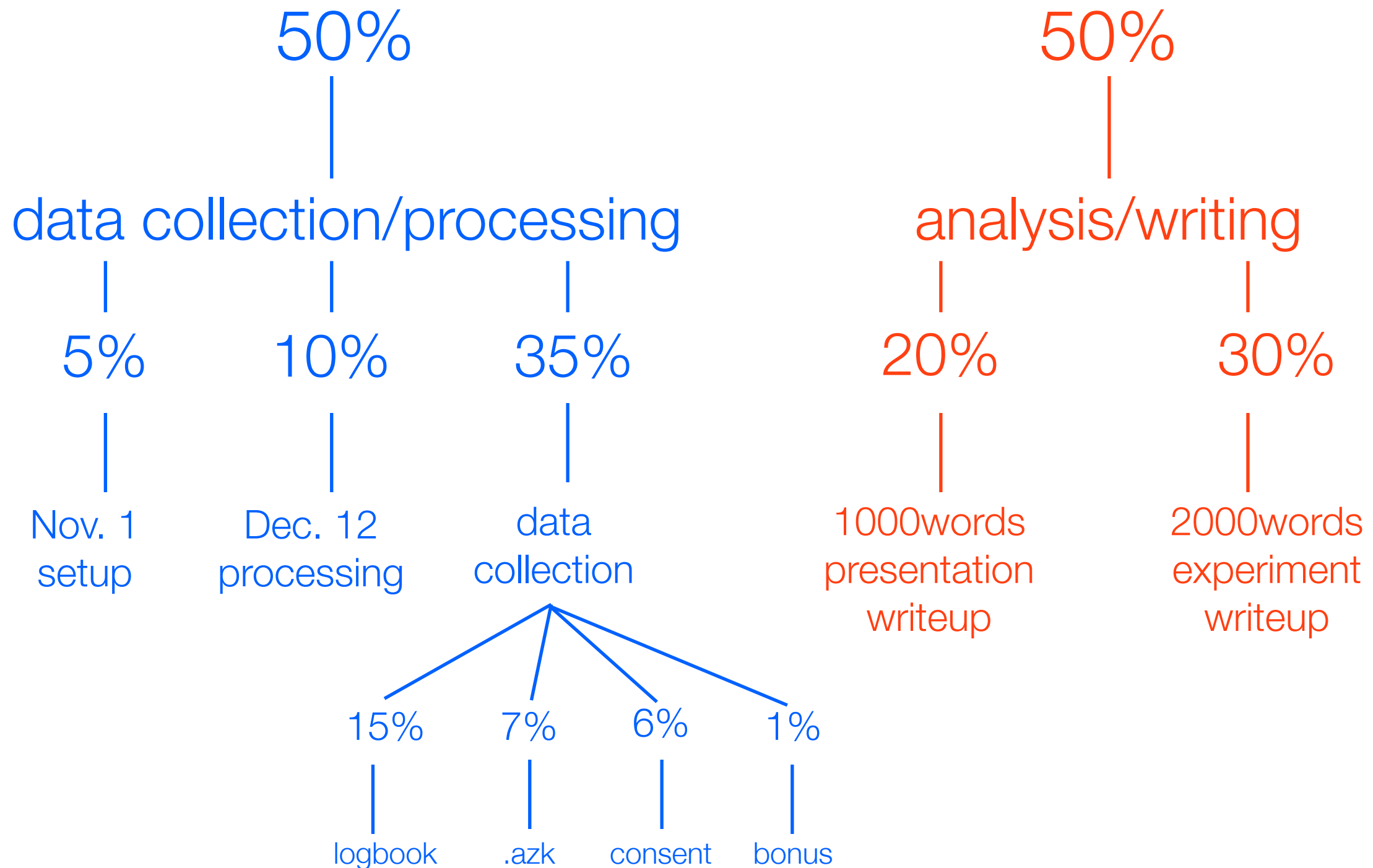
Experiment Wrap Up/Final Assignment

Experimental Linguistics - Semester A 2011

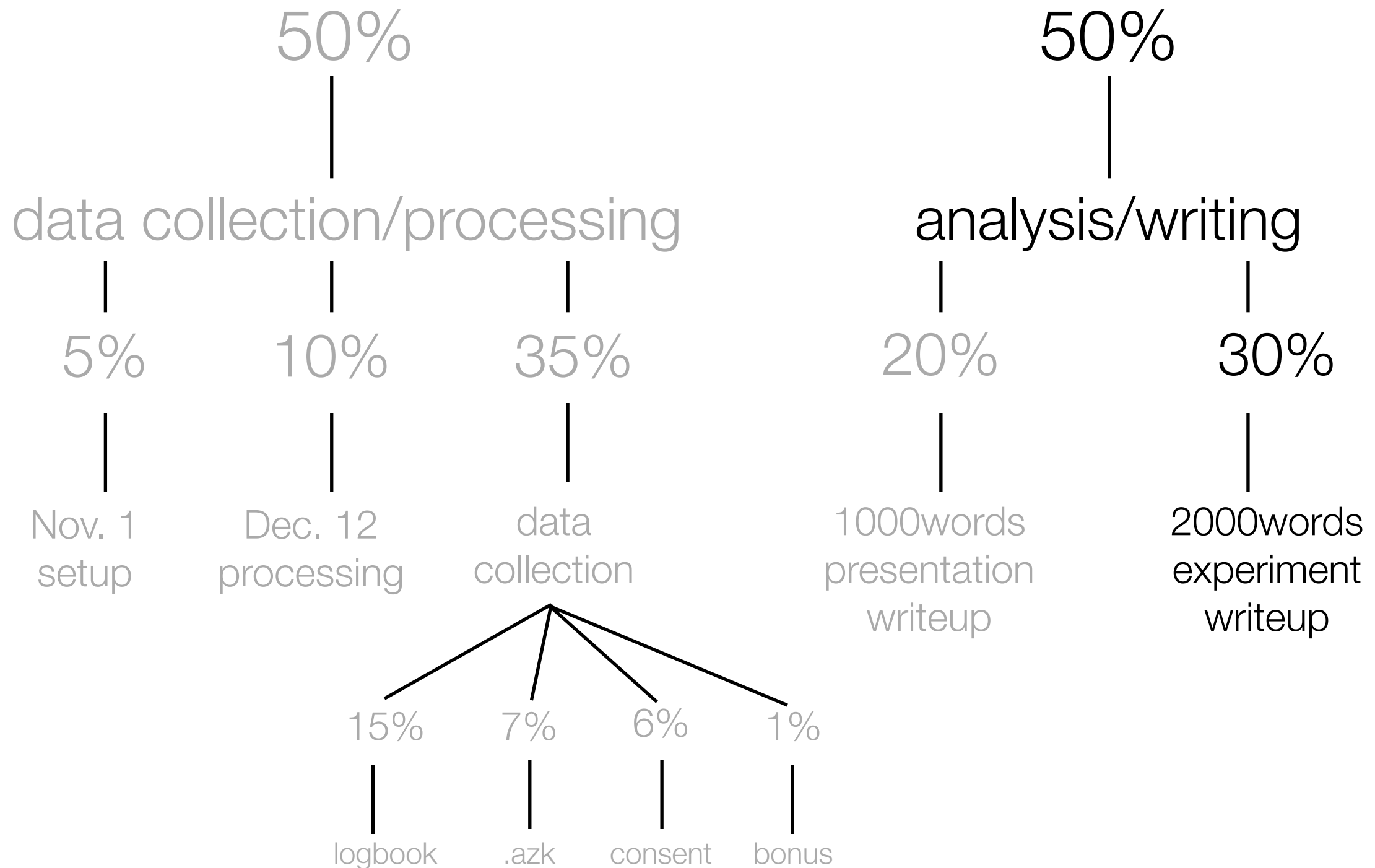
Deadlines

Week/Date	Topic	Deadlines
week 11: December 6	Data Analysis Workshop	data collection done, experiment components submitted
week 12: December 12		data processing file due (analysis workshop makeup)
week 12: December 13	Final WrapUp	1000 word presentation writeup due
week `13': January 13		experiment write up due

Marks & Assignments



Marks & Assignments



Submitting work after the deadline

- From SLLF Handbook
- Late submission will be penalised unless you have obtained permission for an extension to the deadline. Extensions must be requested before the deadline. Permission for an extension for assessed coursework can be granted **ONLY** by the relevant Senior Tutor (see Extensions to assessed coursework deadlines under § 4.2 EXTENUATING CIRCUMSTANCES).
- Any coursework submitted after the deadline, but within 2 weeks of the deadline, will receive a maximum mark of 40. Coursework submitted more than 2 weeks after the deadline will receive a mark of 0.

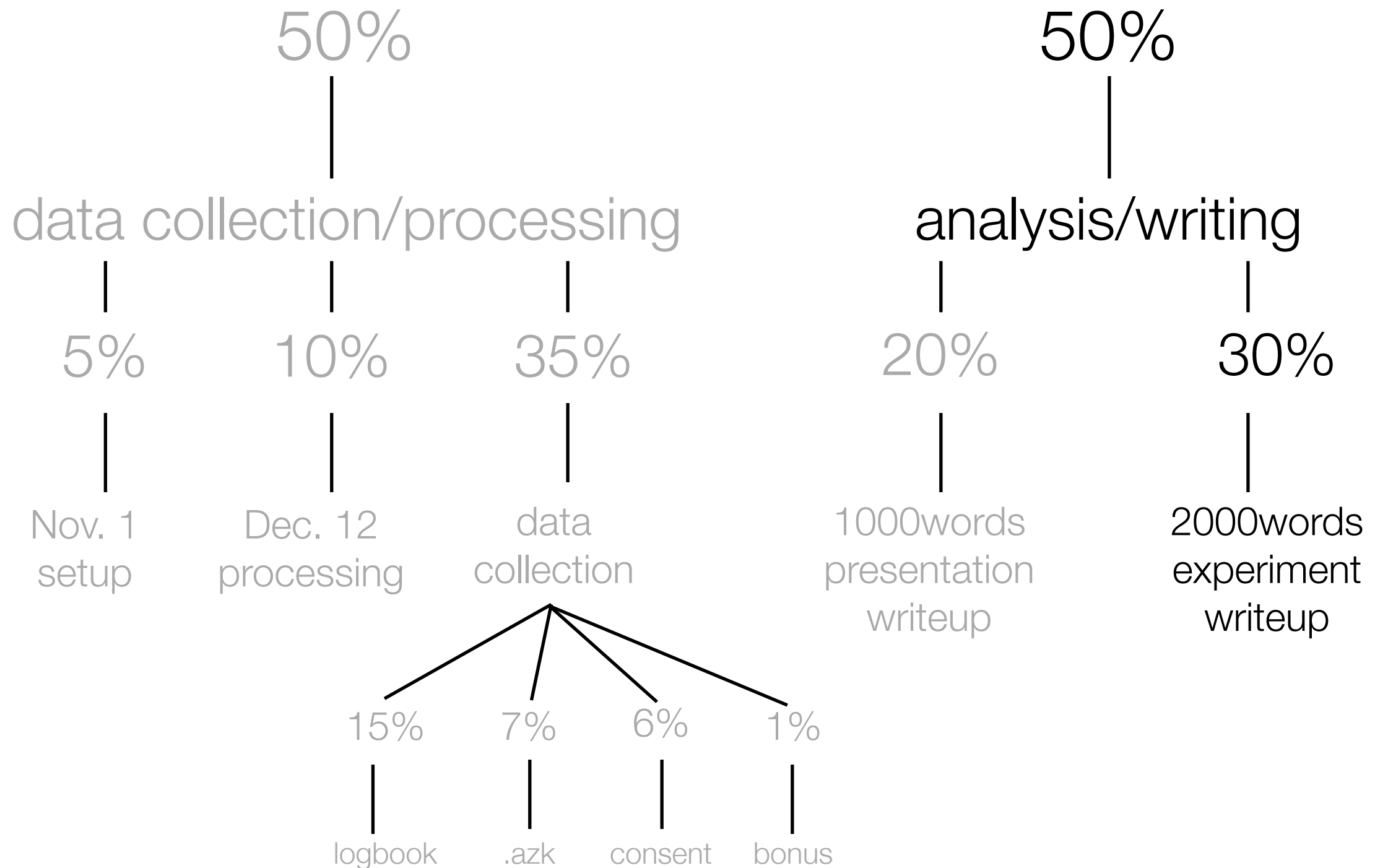
The slightly wacky world of marking in the UK

- The maximum mark allowed is 85 (= superlative/perfect work)
- So you'll get a mark out of 100, which will then be multiplied by .85 to get a mark on 85

Blackboard gradebook/next steps

- meant to give feedback - these are PROVISIONAL marks only, and they have not been scaled
- I promise to finish marking all the experiment related assignments before the end of the week, so you'll have 50% of your mark by Friday
- I will take the 1000 word essays to Portugal with me and have those marks entered before Christmas (still only PROVISIONAL)

Marks & Assignments



Experiment: summary & analysis [30% of mark]

- Students will each write up their own summary of the experiment results and offer an analysis of those results in a 2000 word report. Further details provided later in the term.

Analysis/WriteUp [30%] of mark

- 2000 word writeup
- Will consist of:
 - Introduction
 - Methods
 - Results
 - Discussion

Format: [2000 words]

- Introduction [1000 words]
 - Methods [500 words]
 - Participants [50 words]
 - Materials [150-200 words]
 - Procedure [150-200 words]
 - Data Analysis [50 words]
 - Results [100 words]
 - Discussion/Conclusion [500 words]
-
- References [minimum 5]
 - figures and tables [at least one table & one graph]

Introduction [1000 words]

- review the literature we have covered on speech perception
 - weeks 3-5 (8 papers) + additional background references
- summarize key results, define key terms and concepts, lay out the big questions the work addresses AND the specific question(s) that the previous research leaves unanswered
 - NB: do not cite wikipedia as your source - go deeper
- describe the proposed experiment in one or two sentences
 - use your OWN words
- clearly articulate the hypotheses AND justify them
 - the specific predictions about how the manipulations will/might affect our dependent measures
 - WHY we make those predictions

About the research

We'll be conducting our own class research project using a **forced choice discrimination paradigm**. We'll be comparing the abilities of speakers of **English** and **Hindi/Urdu** to perceive the difference between (a) **singleton and geminate consonants** & (b) **coronal, retroflex, palatal and velar consonants**. Hindi, Urdu and the other Western Hindi languages use gemination phonemically, whereas in English, the only time we get gemination is when we have two homorganic oral consonants across a word boundary as in *mint tea* vs. *minty*. Although this difference is systematic, it's a much less important cue to word meaning than the singleton/geminate contrast is in Hindi, as lexical stress placement also distinguishes these pairs.

We're also manipulating **consonant voicing** as a baseline, since this is a feature that both English and Western Hindi languages make use of phonemically.

Thus we have one feature (place of articulation) that we are very sure should be difficult for English speakers to discriminate, because U.K. English simply doesn't have retroflex or palatal stops, one feature that English speakers should have no trouble discriminating (voicing), and one feature that should be in the middle (gemination). Hindi and Urdu speakers should have excellent discrimination abilities on all three dimensions.

SEMANTICS
(compositional interpretation)

SENTENCE UNITS
(acceptable syntactic structure)

PHRASES
Noun phrases (noun + descriptor)
Verb phrases (verb + what it acts on)

WORDS
(from the vocabulary)

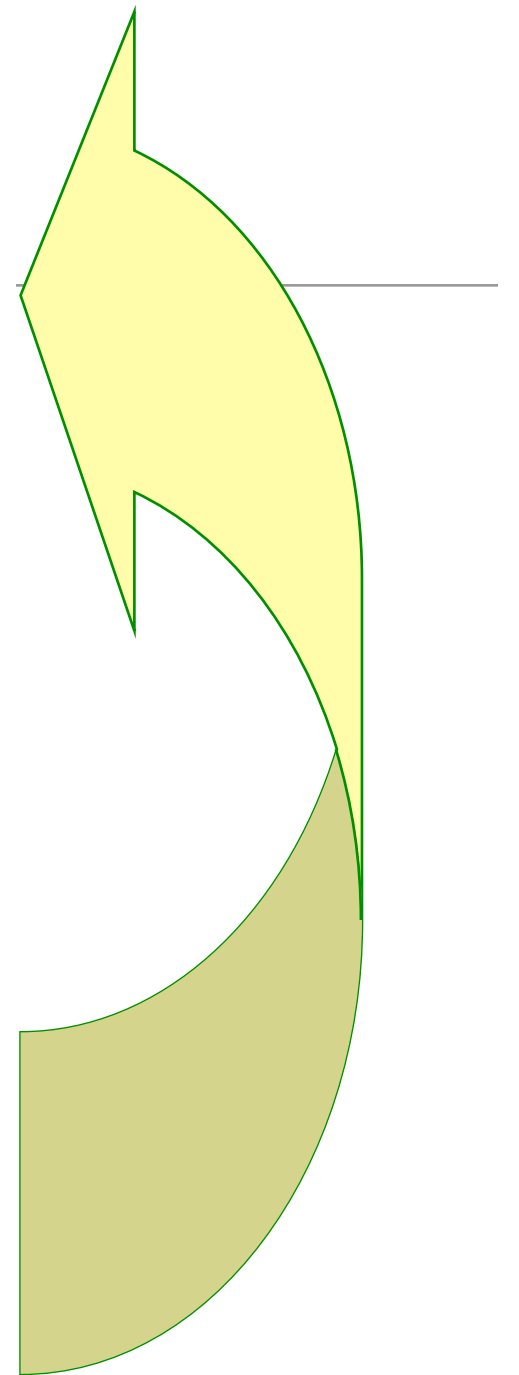
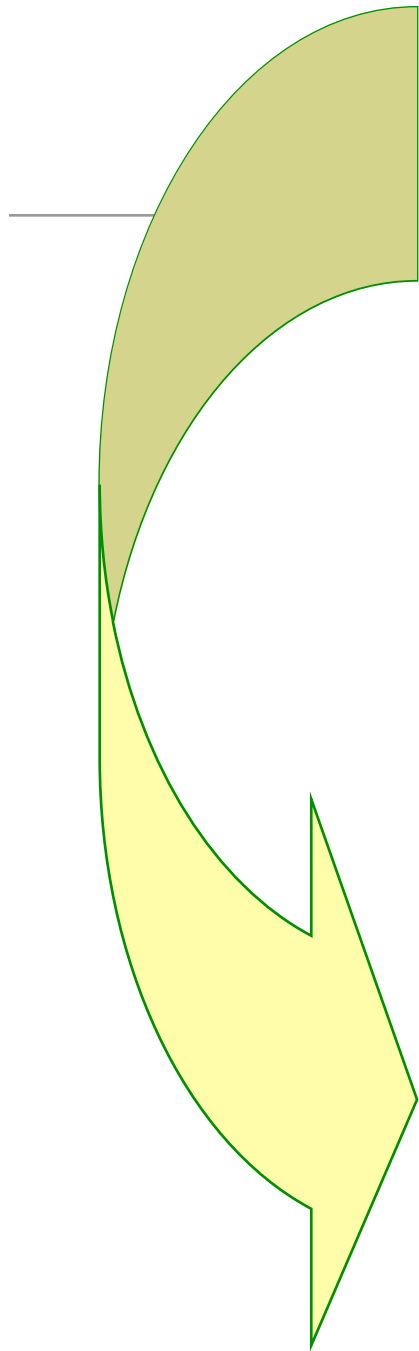
MORPHEMES
(from the lexicon)

PHONEMES
(from the set of acceptable phones in the language)

*Top-Down
Processing*

*Bottom-Up
Processing*

Spoken Input



Methods [500 words]

- Participants [50 words]
 - who participated?
- Materials [200 words]
 - include tables showing the design and provide example materials
- Procedure [200 words]
 - describe in enough detail that someone could follow the instructions
- Data Analysis [50 words]
 - what are the planned comparisons?

Participants [50 words]

- 66 native speakers of UK English
- 37 native speakers of Hindi or Urdu
- residents of London
- I will post an anonymised summary logbook with some additional stats (age range, gender split, any notes on exclusion from analysis)

Materials [200 words]

POA	Lab		Cor		Ret		Pal		Vel	
GEM	-	+	-	+	-	+	-	+	-	+
VCE-	p	pp	t	tt	T	TT	c	cc	k	kk
VCE+	b	bb	d	dd	D	DD	j	jj	g	gg

The diagram illustrates phonological relationships between the VCE- and VCE+ rows. Red arrows indicate the following connections:

- A double-headed arrow between 'p' (VCE-) and 't' (VCE-).
- A double-headed arrow between 't' (VCE-) and 'T' (VCE-).
- A double-headed arrow between 't' (VCE-) and 'd' (VCE+).
- A downward arrow from 't' (VCE-) to 'd' (VCE+).

Materials [200words]

- 20 unique tokens
- produced by Hindi native speaker (Hindi-English bilingual)
- list-wise matched for mean intensity (decibels)
 - gem.ave 74.30 dB vs. sing.ave 76.70 dB
 - voiced.ave 75.71 dB vs. voiceless.ave 75.29 dB

- place of articulation:

cor	lab	pal	ret	vel
75.89	76.71	74.19	75.3	75.43

- all conditions matched for length (milliseconds)
- except geminate vs. singleton
 - gem.ave. 0.68ms vs. sing.ave 0.63ms
 - voiced.ave 0.65ms vs. voiceless.ave 0.66ms

- place of articulation:

cor	lab	pal	ret	vel
0.645	0.662	0.672	0.673	0.623

1	apa
2	appa
3	ata
4	atta
5	aTa
6	aTTa
7	aca
8	acca
9	aka
10	akka
11	aba
12	abba
13	ada
14	adda
15	aDa
16	aDDa
17	aja
18	ajja
19	aga
20	agga

Conditions

- same = identical tokens
 - diff.len.SG = identical except for length, singleton / geminate, e.g. ata / atta
 - diff.len.GS = identical except for length, geminate / singleton, e.g. atta / ata
 - diff.vce.NY = identical except for voicing, voiceless / voiced, e.g. ata / ada
 - diff.vce.YN = identical except for voicing, voiced / voiceless, e.g. ada / ata
 - diff.POA.FB = identical except for POA, more front / more back, e.g. ata / aTa
 - diff.POA.BF = identical except for POA, more back / more front, e.g. aTa / ata
-
- for Hindi/Urdu speakers: 6 x 20 = 120 diff. trials | 80 same trials
 - for English speakers: 40 < diff trials < 120 | 80 same trials

Procedure [200 words]

- describe the experiment procedure - this should be a summary of the instructions you were given
- model this section on the papers you've read

Data Analysis [50 words]

- which analyses were carried out
 - RT ~ length*voice*place.of.articulation*language
 - accuracy ~ length*voice*place.of.articulation*language
 - linear mixed effects models with subjects and items as random factors
- Which planned comparisons were carried out?
 - same models within each language group
 - pairwise comparisons of English vs. Hindi speaker effects (RT & Acc) for Length (gem. vs. sing), voicing (yes vs. no) and POA (lab, cor, vel vs ret, pal)
- any data excluded from analysis? (I'll let you know).

Results [100 words]

- report the effects of our manipulations on your dependent variables
- use charts and tables to show what the data look like
- take the time to format things properly - don't just accept the default settings on excel's charts
- results will be uploaded this week

Discussion/Conclusion [200-400 words]

- Summarise the results, and explain how they address the research question you laid out in the Introduction
- do our results support our hypotheses?
- what do we know as a result of your experiment that we didn't know before?
- discuss further additional questions that arise, acknowledge limitations of the study that may require further research
- wrap it up neatly and coherently - do not just end abruptly

References [not included in word count]

- follow APA or Harvard citation practices
- minimum of 5 published sources (journal articles & books)(ejournals are fine)
- other sources allowed (blogs, wikis, etc), but only as supplements to the core 5
- only include references that are cited in the text

Marking Criteria for Report

Criterion	Sub-Criterion
1. Title	informative
2. section headers	
3. 2000 words excluding figures/tables & refs	
4. proper citation format in text	Juszyk (1999); Stockall & Marantz (2006)
5. references cited for all facts	
6. reference section properly formatted	APA
7. all citations fully referenced	
8. background sufficient to motivate exp	key terms/concepts defined, lit reviewed
9. hypothesis	clear prediction (IV on DV) & justification
10. methods:	basic description
	tool/technique
	independent variables
	dependent measures
	subject population
	data analysis
11. Results	use of charts & tables
	clear description of results (accurate & coherent)
12. discussion/conclusions	what did we learn? why? what next?
13. spelling & grammar	
14. file format	.pdf

Summary

- 2000 words
- pdf
- due Friday Jan. 13th before 4:30pm
- via dropbox & orange cover sheet

Thanks for a great semester
