

## VERBS – tenses and voice

### A. Verb tense

1. Read the extracts from “Results” sections below and underline all finite verbs (i.e. apart from participles used as adjectives).

a)

Antibodies were raised in rabbits against the N-terminal 73 amino acids of GmDmt1;1 (Figure 1c). This antiserum was used in Western blot analysis of 4-week-old total soluble nodule proteins, nodule microsomes, PBS proteins and PBM, isolated from purified symbiosomes. The anti GmDMT1 antiserum identified a 67-kDa protein on the PBM-enriched nodule protein fraction (Figure 3a), but did not cross-react with soluble nodule proteins, PBS proteins or nodule microsomes (Figure 3a). Replicate Western blots incubated with pre-immune serum (Figure 3b) did not cross-react with the soybean nodule tissue examined. The protein identified on the PBM-enriched protein fraction is approximately 10 kDa larger than that predicted by the amino acid sequence of GmDmt1. The increase in size may be related to extensive post-translational modification (e.g. glycosylation) of GmDmt1, as it occurs in other systems.

(Kaiser, B.N., Moreau, S., Castelli, J., Thomson, R., Lambert, A., Bogliolo, S., Puppo, A., & Day, D.A. (2003) The soybean NRAMP homologue, GmDMT1, is a symbiotic divalent metal transporter capable of ferrous iron transport. *The Plant Journal* 35, 295–304)

b)

The effect of urea concentration on the fed leaf and shoot growth in subterranean clover is summarised in Table 1. (Britton-Simmons, K.H. & Abbott, K.C. (2008) Short- and long-term effects of disturbance and propagule pressure on a biological invasion. *Journal of Ecology* 96, 68–77)

2. Identify which verb tenses/verb forms are represented by the underlined words in each sentence (present, past, or modal verb). Can you think of a reason for the use of different tenses in different sentences?

3. Summarize your findings using the following sentence starters:

*In Results sections, the past tense is used to talk about...*

*The present tense is used in sentences that...*

*Modal verbs are used to...*

### B. Voice: active x passive

1. Think of factors influencing the choice of an active or passive verb.

2. Now consider the following examples:

a) The researchers collected data from all sites weekly.

Data were collected weekly from all sites.

b) We calculated least significant differences (l.s.d.) to compare means.

Least significant differences (l.s.d.) were calculated to compare means.

3. Rewrite the following extract in the active voice. What do you notice about the text?

#### Experimental procedures

##### Plant growth

Soybean (*Glycine max* L. cv. Stevens) seeds were inoculated at planting with *Bradyrhizobium japonicum* USDA 110 and grown in

river sand in either glass houses under ambient light between 20 and 30°C, or in controlled-temperature growth rooms at 25°C day and 21°C night temperatures. Plants in the growth chambers were provided with a scheduled (14-h day/10-h night) artificial light (approximately 300 photosynthetic active radiation (PAR) at pot level) period. Plants were irrigated daily with a nutrient solution lacking nitrogen (Delves *et al.*, 1986).

(Kaiser *et al.*)

4.

- a) Analyse the use of active and passive sentences in this sample.

We used the results of these analyses to inform the construction of mechanistic candidate functions for the relationship between propagule input, space availability and recruitment. These candidate functions were compared using differences in the Akaike information criteria (AIC differences; Burnham and Anderson 2002). We then used model averaging...

(Britton-Simmons & Abbott)

- b) In the text, identify a part of a sentence which repeats (or refers to) "old" information.  
c) Can you now explain the use of the passive in the text?

5. Compare the pairs of sentences and decide whether an active or passive sentence is better. Explain your decision:

- a) Some of us will greatly miss Professor Smith.  
The late Professor Smith will be missed.
- b) You're fired / sacked  
Your position is eliminated.
- c) We will have to remove your breast.  
Your breast must be removed.
- d) We suggested today that nurses should go on strike.  
The suggestion was made today that nurses should go on strike.

6. Think of common problems with writing passive sentences.

7. Compare these two pairs of sentences:

- a) Wheat and barley, collected from the Virginia field site, as well as sorghum and millet, collected at Loxton, were used.  
Four cereals were used: wheat and barley, collected from the Virginia field site; and sorghum and millet, collected at Loxton.
- b) To X, Y was added.  
Y was added to X.

8. What do have these sentences in common? Concentrate on subjects and verbs.

Table 3 shows...  
Figure 5 illustrates...  
Our results indicate...  
Our hypothesis predicts X.  
Opinions among us vary.

9. Compare the sentences:

- a) X could be seen. x X was evident/apparent/visible.  
b) X was always used. x X always proved useful.  
c) All two-year-old children were studied. x All children studied were age two.

## EXERCISES

1. Change the sentence. Use only active verbs + try to make it shorter.

The test will have been given before the students are permitted to read the novel.

2. Change the sentences avoiding “we”. Use the words in brackets. Use active verbs.

- a) We administered 20 mg to each mouse daily. (receive)
- b) We suggest the reason for X is still unclear. (remain)
- c) Based on the results, we believe our hypothesis is correct. (indicate)
- d) We provided soil samples.
- e) We got all data from X. (come)
- f) Because of the evidence, we assume there is an alternative cause. (suggest)

3. Rewrite the sentences into active using different verbs.

- a) Patients were operated on.
- b) Sixty were used as controls.
- c) Each participant was given X.

4. Shorten the sentences avoiding the passive.

- a) It has been found that X causes Y (Aho 2001).
- b) We found that Y was produced by X.

5.

- a) Which word is the most important in this sentence, i. e. brings new information?

The result may be catastrophic, as shown by our study.

- b) Rewrite the sentence twice. First, put its new information last. Next, change it into active voice. Use an inanimate agent.

6. Here is an example of a top-heavy sentence, with a very long subject followed by a short passive verb near the end. Rewrite the sentence to make it easier for a reader to understand.

Actual evapotranspiration (T) for each crop, defined as the amount of precipitation for the period between sowing and harvesting the particular crop plus or minus the change in soil water storage in the 2m soil profile, was computed by the soil water balance equation (Xin, 1986; Zhu and Niu, 1987).

(Li, F., Zhao, S., & Geballe, G.T. (2000) Water use patterns and agronomic performance for some cropping systems with and without fallow crops in a semi-arid environment of northwest China. *Agriculture, Ecosystems and Environment* 79, 129–42)

7. Concentrate on the end of sentences and find the best sentence three.

A. Finland has the world’s highest incidence of type 1 diabetes. This disabling disease and its treatment constitute a drain on national medical resources.

B. The world’s highest incidence of type 1 diabetes occurs in Finland. Finnish diabetes researchers uncover some of the field’s most interesting new data.

C. Regarding type 1 diabetes, Finland’s annual incidence is the world’s highest. Its figure for 2008 was 60/100,000.

D. Finland has the highest incidence of type 1 diabetes in the world. At least one nation’s mean incidence in 2008 was under 1/100 000, whereas Finland’s figure, 60 times as high, raises the question why Finland’s rate is so high.

Choices for the best sentence three.

- 1. One important area of investigation is diabetes-associated nephritis.
- 2. Is sugar consumption unusually high, or is this rate most related to genetics?
- 3. The state finances medical care, and it generously supports those unable to work.
- 4. Such a rate requires funding of studies by the country’s top researchers.

8. Explain what is wrong the following sentences (presuming they occur in an academic text).

X costs a lot. You can’t get it there often.

9. Improve this “methods” section by editing out passives. Lose 70+ words. Also, aim to avoid using as many “we” pronouns as possible.

A retrospective review of all breast cancer patients treated for local recurrence in our hospital was performed. Cases with other cancers present or unknown primary were excluded. The information was gathered from the patient database of the Department of XXX, Turku University Central Hospital (TUCH), consisting of 5859 breast cancer patients. All the patient records in the database were reviewed, and those patients with local recurrence of breast cancer were selected to be included in this study. A total of 506 patients were found. They had been treated between 2005 and 2009 for local recurrence in the excision scar or for in-transit metastasis. Factors predicting outcome after local recurrence were analysed. Patient records were analysed for patient, tumour, and treatment characteristics. Details on tumour characteristics were obtained from pathology reports, and all pathology reports were re-examined by a specialist in pathology to obtain all information on the primary tumour. Surgical and radiological reports were analysed for follow-up data on patterns and timing of local recurrence. Furthermore, possible development of lymph node or distant metastases was recorded. The ABCD staging system from 2003 was used for grouping patients according to their stage of the primary disease.

Sources:

Cargill, M. and P. O'Connor, P., 2009. *Writing Scientific Research Articles: Strategy and Steps*. Chichester: Blackwell Publishing. ISBN 978-1-4051-8619-3.

Norris, C. B., 2012. *Academic Writing in English*. Helsinki: University of Helsinki.