

Essay Writing

Unit 1B – How to Analytical: Setting up a Taxonomy

INDEPENDENT LEARNING RESOURCES

Learning Centre



THE UNIVERSITY OF
SYDNEY

This unit's place in the whole module:

Unit 1A How to be analytical:
What is analysis?

**Unit 1B How to be analytical:
Setting up a taxonomy**

Unit 2A How to structure an essay:
Developing an essay structure

Unit 2B How to structure an essay:
Writing introductions and conclusions

Unit 3A How to use evidence:
Developing an argument out of the evidence

Unit 3B How to use evidence:
Supporting your argument with the evidence

Unit 3C How to use evidence:
Avoiding plagiarism

Unit 4A How to develop an argument:
Being persuasive

Unit 4B How to develop an argument:
Being critical

UNIT 1B. How to be analytical: Setting up a taxonomy

OBJECTIVES OF THIS UNIT

After you have completed this unit, we hope you will be able to:

- understand the use of taxonomies to organise information and ideas
- analyse some basic information and ideas into taxonomies

IDENTIFYING YOUR PROBLEMS WITH BEING ANALYTICAL

If you have been having difficulty in being analytical enough in your essays and assignments, your marker may have made a comment on your writing similar to these:

- *"You need less description and more analysis."*
- *"You've given lots of information but you haven't really analysed the material."*
- *"I want to see your own way of dealing with this topic."*

INTRODUCTION TO THIS UNIT

In the previous unit on "What is analysis?", we were using diagrams to represent information in written texts. In this unit, we will go into more detail about how to build up diagrams like this. The process of building up such diagrams is very helpful in making a picture of the ideas that are in your head. We can refer to this kind of picture diagram as a taxonomy. A taxonomy is a diagrammatic representation of the parts that make up a particular whole, showing the hierarchical relationships among the parts.

1. DIFFERENT PICTURES OF THE SAME WORLD

When you are trying to set up your whole picture for your essay topic, you will probably find that the picture needs to change as you read more and think more about the essay. This is perfectly normal and very desirable. Most people cannot find perfect solutions to difficult problems on their first effort. It is also perfectly normal that there may be different acceptable solutions to the same problem, especially in areas of great controversy. Even in the most factual analysis of a topic, people can have different ways of picturing the topic.

Exercise 1

As an example of these different pictures of the world, notice the variation in the following three ways of picturing the world of "birds of prey". Which taxonomy shows us the world of birds according to a biologist? Whose world of birds is being shown in the other two diagrams?

(Diagrams 1-3 over the page are from Wignell P, Martin JR, and Eggins S (1987) "The discourse of geography: ordering and explaining the experiential world", Working Papers in Linguistics, No.5, Linguistics Department, University of Sydney, p.30-32.)

Diagram 1

--birds of prey--

- eagles
- hawks
- kookaburras
- magpies

Diagram 2

--Eagles--

- Little Eagle
- Wedge-tailed Eagle
- White-breasted Eagle
- White-eyed Buzzard Eagle

--Kites--

- Black-shouldered Kite
- Letter-winged Kite
- Black Kite
- Square-tailed Kite
- Black-breasted Buzzard
- Brahminy Kite
- Whistling Kite

--Goshawks--

- Grey Goshawk
- Red Goshawk
- Brown Goshawk

--Hawks--

- Sparrow--
hawks
- Collared Sparrowhawk
- -
- Crested--
hawks
- Crested Hawk
- -
- Fishing--
hawks
- Osprey
- -

--Falcons--

- Black Falcon
- Peregrine Falcon
- Little Falcon
- Grey Falcon
- Brown Falcon
- Nankeen Kestrel

--Harriers--

- Swamp Harrier
- Spotted Harrier

Diagram 3

(family)	(genus)	(species)
	--Elanus	--Elanus notatus (black shouldered kite) --Elanus scriptus (letter-winged kite)
	--Aviceda--	--Aviceda subcristata (crested hawk)
	--Milvus--	--Milvus migrans (black kite)
	--Lophoictinia--	--Lophoictinia isura (square-tailed kite)
	--Hamirustra--	--Hamirustra melanosterna (black-breasted buzzard)
	--Haliastur--	--Haliastur indus (brahmny kite) --Haliastur sphenurus (whistling kite)
--Acciptridae--	--Accipter--	--Accipter novahollandiae (grey goshawk) --Accipter fasciatus (brown goshawk) --Accipter cirrocephalus (collared sparrowhawk)
	--Erythrotriorchis--	--Erythrotriorchis radiatus (red goshawk)
	--Haliaetus--	--Haliaetus morphnoides (little eagle) --Haliaetus leucogaster (white-breasted sea eagle)
	--Aquila--	--Aquila audax (wedge-tailed eagle)
	--Butastur--	--Butastur teesa (white-eyed buzzard eagle)
	--Circus--	--Circus assimilis (spotted harrier) --Circus approximans (swamp harrier)
--Falconidae--	--Falco--	--Falco subniger (black falcon) --Falco peregrinus (peregrine falcon) --Falco longipennis (little falcon) --Falco hypoleucus (grey falcon) --Falco cenchroides (nankeen kestrel) --Falco berigora (brown falcon)
--Pandionidae--	--Pandion--	--Pandion haliaetus (osprey)

☺ **KEY**

Before going on, read the explanation in the key about this exercise.

2. HOW TO IDENTIFY A TAXONOMY

The following essay topic was set for a first-year course in Nursing:

"Conditions which influence health and illness are prior to and outside the health care system. Discuss."

We can analyse this essay topic by trying to imagine what the various parts are, and how we could set up a taxonomy to show how these parts relate to each other. For example, if we talk about things which are outside the health care system, then we naturally should think of the alternative - that is, things inside the health care system.

- outside health care system
- inside health care system

When we talk about things which are "prior to", then we can also think of things which are current, or future.

- prior to health care system
- currently in health care system
- in future in health care system

When we talk about conditions which influence health and illness, we can also think about conditions which do not influence health and illness.

- conditions which influence health and illness
- conditions which do not influence health and illness

Each time we discuss one aspect of a thing, there are other aspects that we are not discussing. By putting all these aspects together, we are being systematic in the way we are organising the world. Also, when we begin to organise things in this way, we can begin to think in more depth about the topic. For example, in the two small taxonomies above, we should try to find a heading that will give a label to the total of the items in the taxonomies:

location of conditions -- outside health care system
-- inside health care system

time of-- prior to (before) health care system
conditions -- currently in health care system
-- in future in health care system

type of-- conditions which influence health and illness
conditions -- conditions which do not influence health and illness

This kind of thinking is abstract thinking. It helps us in trying to understand what the question is all about. We can even do this kind of thinking without knowing much about the content. For example, we could go through a similar process if the question was *"Conditions which influence learning are prior to and outside the health care system. Discuss."*

3. SETTING UP YOUR OWN TAXONOMY

But we also need to go further than just seeing what kinds of taxonomies are given in the essay topic. For example, we need to find out what conditions do influence health and illness, so that we can begin to draw up a new taxonomy:

	-- ?
conditions which influence health and illness	-- ?
	-- ?
	-- ?

To do this, we need to read on the topic so that we can begin to fill in the gaps. Then we can go through the process of being analytical, by finding all the characteristics, and looking for relationships amongst them so as to categorise them into logical groups.

Exercise 2

Here is the introduction to an essay in answer to this same question. It is a good beginning to an analytical essay. It sets up its basic taxonomy in order to identify those conditions which influence health and illness before people come into the health system. Draw a diagram to show the taxonomy that this writer developed to discuss this topic.

ESSAY 1 (tutor's assessment- 75%)

There are many conditions that determine health and illness prior to and outside the health care system, but before these conditions are determined, a definition of a health care system must be sought. From Mosby's Medical and Nursing dictionary (2nd Edition), a health care system is defined as being "the complete network of agencies, facilities and all providers of health care in a specified geographic area." So it can now be said that such things as socio-economic status and class, occupation, ethnicity, gender and age all contribute to health and illness outside the health care system.

Taxonomy:

Exercise 3

Here is another introduction to an essay on the same question. This piece of writing is a very descriptive piece. It gives little descriptive pieces of information about health, but it does not put these pieces of information into an organised structure that will help to answer the question. Make notes about the problems you identify with this introduction.

ESSAY 2 (tutor's assessment- 40%)

The emergent public awareness of health issues and disease prevention has soared dramatically over the century. However, it is ironic that the overall health of the population still remains quite poor. Heart disease, cancer, A.I.D.S (Acquired Immune Deficiency Syndrome), smoking, alcohol, stress, are all some of the issues affecting our society today. Medical practitioners and other providers of health care traditionally have provided treatments for disease. However, it is increasingly being argued that there should be an elevated emphasis on the preventative approach, and that the health care system should find more efficient ways of promoting good health to the population.

Exercise 4

Below is a jumbled list of 'conditions' which may affect an individual's health. This is the kind of list that you could end up with from all the readings you do when you are preparing for an essay. Try to organise the conditions into categories and then label the categories.

- A person's genetic make-up
- Ethnicity
- Exposure to government funded health promotion programmes
- Personality factors
- Socio-economic background
- A person's diet and exercise habits
- Gender
- Access to community health centres
- Emotional, psychological, mental factors
- A consultation with a G.P.
- Immunisation for infants
- Hospitalisation
- A person's occupation
- Lifestyle
- Quality of physical environment
- Family history

Exercise 5

On the following page is some information about the risk factors associated with heart disease. How might you group the information together into two, three, or four main groups, rather than ten as there are now. Draw up a taxonomy to show how you could picture it.

4. USING A TAXONOMY TO ANSWER A PARTICULAR QUESTION

In these exercises so far, you have simply been trying to see how individual pieces of information and ideas on a particular topic can be related to each other. There are usually many different ways that people can build up these pictures, according to the kinds of relationships they see. For example, in your taxonomy about risk factors for heart disease, you may have drawn up a fairly simple taxonomy, such as:

- risk factors -----
- major-----
 - cigarette smoking
 - high blood pressure
 - high blood cholesterol
 - minor-----
 - obesity
 - diabetes
 - heredity, age and sex
 - sedentary lifestyle
 - stress and behaviour patterns
 - other risk factors

Or perhaps you found another way to group the risk factors together, for example:

- risk factors -----
- physiological
 - psychological

Indeed, there are countless ways that you might decide to group the information together. The amount of variation is even greater in humanities and social science topics than in the factual areas of the physical and natural sciences, because topics are much more open to interpretation in areas of human behaviour.

When you have a particular essay question to answer, the question itself will tend to lead your picture in a certain direction. For example, in the question about the health care system, your picture of the relationships between the conditions will most likely be in terms of whether they are conditions inside or outside the system.

Exercise 6

Now using the same information about risk factors for heart disease, draw up a taxonomy to help organise an answer to this essay question:

"Discuss the risk of heart disease for the overweight diabetic patient who smokes."

Exercise 7

Think about an essay you have worked on recently, or that you are currently planning. What are the various parts of the topic of this essay question? For each part, do you have a list of the characteristics that help to define it? How do these characteristics relate to each other across different parts of the topic? What are the abstract categories that emerge from trying to find these relationships? What are some different ways that you have tried to group information and ideas together in order to answer the essay question?

For your next appointment

Bring one or more taxonomies showing what are the parts of the essay topic that you have chosen to try out this exercise. Be prepared to explain the characteristics of the parts, how they relate to each other, and what abstract categories you identify. Try to work out which system you prefer for answering the essay question, and why.

ANSWER KEY

ESSAY MODULE

Unit 1B

How to be analytical:

Setting up a taxonomy

Exercise 1

In doing this exercise, you should notice the way that the picture or taxonomy changes according to whose taxonomy it is. The first diagram is possibly the picture that most people might create to show what are birds of prey. The second diagram is a birdwatcher's taxonomy. This is evident from the descriptions given of the birds, which focus on the characteristics that you can see when watching birds. Notice, for example, that eagles are all together, kites are all together, and so on. When you look at the third diagram, the most noticeable difference is that the names are mostly Latin names. This is a biologist's taxonomy, organised into genus and species. This taxonomy is different again in its major groupings, for example, you can see that eagles and kites are grouped together under *Acciptridae*....

So you see that the picture of the world can change according to your purpose. In academic study, there are usually no correct answers. Even biologists can disagree about how to set up a taxonomy for a particular animal group. So the point is to create a picture which you can justify as being better than others.

Exercise 2

Factors which contribute	- socio-economic status and class
	- occupation
	- ethnicity
	- gender
	- age

Exercise 3

This introduction seems to be answering a different question, for example, "how can the health system improve the levels of health of the population". The taxonomies which have been begun are related to medical problems within the health care system, rather than to the conditions outside the health care system which cause or influence these problems.

Exercise 4

Here is only one suggestion for how the list of conditions might be categorised. You could bring your own taxonomy to your next ILP session to discuss how you organised them.

Personal and lifestyle characteristics

- genetic make-up
- ethnicity
- personality factors
- diet and exercise habits
- gender
- emotional, psychological, mental factors
- lifestyle
- family history

Experience of health and illness

- exposure to government funded health promotion programs
- access to community health centres
- a consultation with a GP
- immunisation for infants
- hospitalisation

Socio-economic conditions

- occupation
- quality of physical environment