

Module 5: Analytical Writing

Aims of this module:

- To identify the nature and features of analytical writing
- To discover the differences between descriptive and analytical writing
- To explain how to develop an analytical framework for an essay

Understanding analytical writing

A basic requirement for essays at university level is that they are analytical. Analysis generally involves reorganizing information from the sources or data you have been given in order to make some kind of relationship between concepts.

Analytical and descriptive writing

This exercise is designed to give you a better understanding of the difference between analytical and descriptive writing.

Here is the beginning of two essays. After reading them, fill in the multiple choice questions in Exercise 1 below.

ESSAY A

Malware is short for “malicious software”, which means computer programs that are designed to interfere with normal computing operations. Malware includes computer viruses, worms, Trojan horses, spyware, botnets and any other unwanted software or program.

There are two main types of malware: ones that replicate or copy themselves and ones which do not copy themselves. Self-replicating malware includes viruses and worms. A virus is attached to a software program and it modifies or damages a user’s computer files. A worm, however, is not attached to a program. It does not usually damage files but it is designed to spread by making copies of itself on other computers on the same network. Worms can send thousands of spam emails to other computers. Spyware does not replicate itself or spread directly like a virus or worm. Instead, its purpose is to gather information about users. Spyware may contain a “keylogger” that identifies the user’s keystrokes when entering a password or credit card number. Other spyware programs known as “adware” redirect search engine results to paid advertisements or start “pop-up” advertisements.

Malware can be transmitted in three ways. Firstly, Malware can be sent to users by email. Emails pretending to be from banks ask individuals to provide their banking passwords. Other emails direct the customer to click on an attachment that can contain a malicious virus. Malware can also be hidden in downloads from the internet. Trojan horses are programs that are hidden within another program.

They may appear to be something harmless, such as a free internet software download, but a Trojan horse conceals a harmful virus or worm. It may delete the user's files or install more malicious software. For example, the Torpig Trojan stole login credentials from approximately 250,000 online bank accounts as well as a similar number of credit and debit cards (BBC News 2008). Malware can also be spread by sharing portable media such as CDs, DVDs or USB storage drives. If there is malware on the shared media, it will spread from computer to computer.

ESSAY B

Malware attacks can have serious consequences for individuals, businesses and government computer networks. Malware is short for "malicious software", which means computer programs that are designed to interfere with normal computing operations. Individuals, businesses and governments are vulnerable to theft and loss of private information, while the costs of preventing and repairing malware are huge for businesses and government.

The most significant consequences for individuals are financial loss and invasion of privacy. Identification of private banking information such as user passwords and credit card details through spyware can enable a criminal to steal funds without the user being aware (Teller 2011). Redirection of search engine results to paid advertisements or undesirable websites can persuade individuals to part with money (Zorz 2011). Invasion of privacy is another consequence of Malware, as identity theft has become more common (Australian Privacy Foundation 2009).

Implications of malware for businesses are serious. At an organisational level, network and data protection are costly. In the event of a Malware attack, interruption to an organisation's website or e-mail systems can cause significant loss of sales and even more importantly, loss of customer trust in the company (Yin 2011). Remediation after a Malware attack involves significant cost to businesses.

Consequences of malware for governments can involve loss of sensitive information and increased costs for detection and prosecution of internet crime. Government departments can themselves be targeted by malware, with sectors such as Defence and Social Security being particularly attractive to attack (Davis 2010). Governments are also under pressure to respond to increased cyber attacks by investing huge resources in internet crime prevention, internet crime regulation, additional policing measures and changing legislation for harsher penalties for offenders (Cowdery 2005).

Exercise 1

Choose the best answer for each of these items. Tick the box under Essay A or Essay B to show if the item is correct:

		ESSAY A	ESSAY B
1	This type of essay is (i) a descriptive type (ii) an analytical type	[]	[]
2	The essay is about (i) consequences of malware (ii) types of malware	[]	[]
3	The essay (i) contains a main point to be argued (ii) does not contain a main point to be argued	[]	[]
4	The essay answers the instruction: (i) Evaluate the consequences of malware (ii) Describe the main types of malware	[]	[]

Analysing information and ideas

In the process of planning to write an analytical essay, starting from reading the essay question and continuing through all the reading and researching you do, there are a number of processes that should be going on simultaneously:

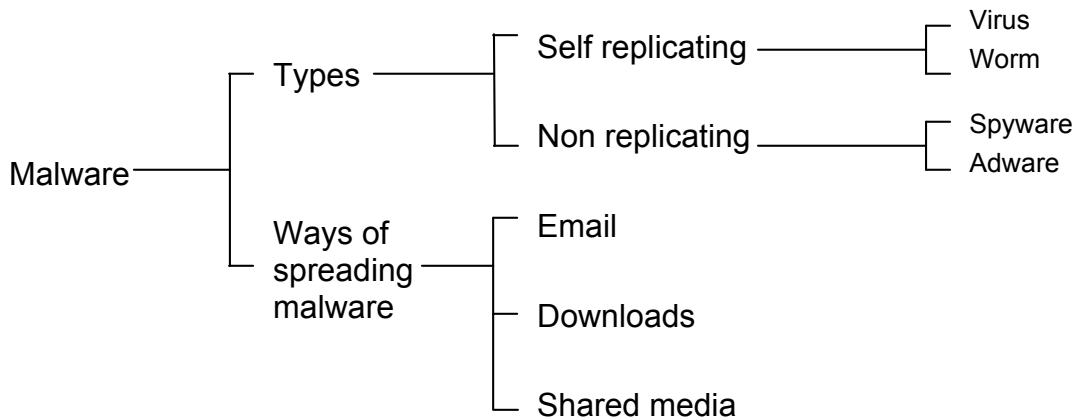
- You should be seeking to understand the relationships amongst the individual pieces of information and ideas.
- You should be trying to organise these pieces into some groups according to the relationships amongst them, and to give each group an abstract heading.
- You should be trying to establish some overall picture of how these groups relate to each other, of how they contribute to making a whole picture.
- You should be as flexible as possible to the thought of changing this picture and its parts as often as it is necessary.

Developing an analytical framework for an essay

Many students find it useful to develop an analytical framework or taxonomy which represents the way pieces of information have been grouped and related to others. There are many different ways of structuring information and ideas that are to be included in an essay. The structure that you set up might be a reflection of the way these things are

structured in the real world, for example the way one thing happens after another in a time sequence. Or the structure might be based on your own interpretation of the real world, for example, the way you think one thing is more important than another.

This is a framework for Essay A. Is it mainly concrete or abstract? Explain your reason for this answer.



Exercise 2

Draw a framework or taxonomy to show the way Essay B is structured.

Analytical frameworks involve abstract concepts as the basis for an essay. Here are some common abstract frameworks:

- Advantages and disadvantages
- Issues or problems

- Factors, causes or reasons
- Consequences

These can help you organise your ideas in your essay and move to the detailed planning stage of your essay preparation.

Answers

Exercise 1

		ESSAY A	ESSAY B
1	This type of essay is		
	(i) a descriptive type	[✓]	[]
	(ii) an analytical type	[]	[✓]
2	The essay is about		
	(i) consequences of malware	[]	[✓]
	(ii) types of malware	[✓]	[]
3	The essay		
	(i) contains a main point to be argued	[]	[✓]
	(ii) does not contain a main point to be argued	[✓]	[]
4	The essay answers the instruction:		
	(i) Evaluate the consequences of malware	[]	[✓]
	(ii) Describe the main types of malware	[✓]	[]

Exercise 2

