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## USEFUL COMPUTER SKILLS

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### Aims

It is presumed that you know how to use a computer when you come to study at university level so if you have limited or no prior experience then you will have to teach yourself or take courses. It is entirely up to you to learn to type, if you cannot do so already, and to find your way around the popular word-processing and spreadsheet software. This chapter gives some tips on how to use some of these packages and it highlights some of the differences between Microsoft Office 2007 and all the previous versions of their popular software. By the end of this chapter, therefore, you should know:

- some of the basics of using a networked computer
- keyboard shortcuts and some features in Microsoft Word
- some useful tips for Microsoft Excel, Microsoft PowerPoint, Adobe Reader and Adobe Acrobat
- what virtual learning environments (VLEs) and turnitin.com are
- about the existence of reference databases and online survey tools.

### What is expected at university?

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You may already have had extensive experience of using a variety of software packages by the time you start university but there are many students who will have had limited or even no prior experience. Your school may not have been in a position to offer computer classes, you may not have had easy access to a computer or you may be returning to education after many years working in areas that did not require computer use. However, while you will be trained on the use of computer software such as SPSS, or other statistics programmes, or in-house software for labs, it is likely that the only other computer training that you will get at university level is a hand-out that may be available through your university's IT services. From time to time the IT services in universities may offer classes on any of a variety of different computer packages and it is recommended that you avail yourself of any of these that you can, if you feel that they would be helpful.

## Getting started

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### Logging in/out

You may already be familiar with having to enter a username and password to be able to access a computer as many newer versions of operating software require that you set up this facility. If it is your own personal computer then you are free to choose your username and password. Your university will issue you with a username and password, most likely as part of the materials that you receive on the day that you register, so that you can use their computer facilities. It is essential that you memorise these! Usually you will not be given a choice of username or password. If the department in which you are studying has its own private computer room, which it may use for teaching or lab work, or allows students to access lecture notes or other materials online, then you may also be issued with a separate username and password for their machines or materials. Your online behaviour can be monitored so it is very important that you never give your log-in details to anybody – you will be held entirely responsible for any misuse of facilities while you are logged in. When you are finished using the computer you must log out! These options will either be in the start menu (on a PC) or in the ‘help’ drop-down menu on a Mac.

### Passwords

Your username may be a number or some version of your name (usually surname and initial or first name.surname) but your password is likely to be a combination of letters and numbers. They are case sensitive (which means that you must type them exactly as they were given to you) and the reason for the rather complicated password is so that it will be very hard to guess. Hackers love to find people who use simple or easy-to-guess passwords. You should always change your password from time to time but there are some important points that you should consider in choosing it:

#### Box 1.1

- never use the word ‘password’
- do not use your name or the name of anyone you know
- do not use the name of a pet or any other animal
- do not use the name of a TV show or character
- do not use any word at all as your password
- do not use birthdays, anniversaries or any other dates
- make sure that your password contains a mixture of letters (at least one capital letter) and numbers
- never give your password to anybody!
- if you suspect that someone knows your password then change it immediately.

The first six items on that list are also the first things that any hacker will try when trying to guess your password. Why make it easy for them? When you change your university password make sure that you do not forget the old one as you can sometimes find that different parts of the university computer system will seem to have no idea that you have changed your password and will still expect you to provide the old one. This is annoying but it does happen.

## Computer networks

Unless your school had a computer network or you have been working in offices or businesses that used networked computers, you will probably have had little to no experience of using them. The key software is usually saved on each individual machine but sometimes you may have to go to a shared network drive (just a different folder on the computer) to find other software. You will probably be assigned network space in which you can save your work and if so you should make sure that you also save a copy onto a disk. Networks can crash and if they do then you will not be able to access any of the information that you have saved on it until the problem has been resolved. This happened to my undergraduate class in the weeks just before our thesis was due in. We had all saved our work onto the network because we had been told to do so and only a few of us had made backup copies on disk. You may find that a networked computer is much faster than you have been used to but if there is heavy traffic on it then it can be quite slow, so be patient. Networks are monitored so you should not attempt to access websites or download software or imagery that would be in breach of university regulations. This monitoring is done by software so can't make the mistake of thinking that if the security cameras can't see what you're doing then you are getting away with it.

You may find that you are forbidden from saving anything onto the hard drives of the computers in your university, which means that you will have to save it onto an external disk. If you can save to the hard disk of a university computer then make sure that you either save a copy to your network storage, your USB key, and/or that you email it to yourself. This is because your file will be freely available to the next people to use that computer, that you will have to go to that same machine to be able to access it or that you may lose it completely if the stored documents are cleared out at night.

## Basics of file management

I cannot stress enough just how important it is that you save your work very frequently. If you stop to think, to look something up, to blow your nose – anything at all – then save your work. Computers can crash when you least expect it and networks will also go down. In addition, the latest version of Microsoft Word has a really annoying habit of crashing quite often, usually when you are trying to save your work. Sometimes it's a crash where it just shuts itself down, sometimes it just starts scrolling rapidly to the top of your document before freezing and other times it just hangs while trying to save; if it does any of these things then know that it wasn't you. Various versions of

SPSS (the major statistics package that you will most likely learn to use) have an annoying bug whereby you will think that your work is being saved when actually this is not the case. When this happens your work will be lost unless you select all that you have done, select copy, open an Excel file and paste it into that. You can spot that SPSS is having one of its fits if you keep an eye on the name of your file as it appears in the top left-hand corner of your screen. If the full name of the file is visible then it is saving, when you tell it to. If it changes the name to an eight-character file name that contains a ~ symbol, then it is not saving anything (for example, mydataf~.sav). This is one of the reasons why it is recommended that you input all of your raw data in Excel and then copy and paste what you want into SPSS later.

If you are going to type something then open Word and immediately save the blank document. When you select 'save as' you will have the option of giving the file any name that you want and also to save it anywhere that you want. Use the various drop-down menus provided to save the file onto your disk, rather than onto the university computer. This way you won't be unable to find it later or forget to transfer it to your disk. The same applies with files that you are creating using any software; save the blank file first in the location that you want and then add your text or data.

Get into the habit of organising your computer files from Day One. Do not just save them onto the disk presuming that you will easily find a file when you want it. This will be especially important with your statistics files (see Chapter 7). Create folders with clear titles (keep them short) and place the relevant files into those folders. Give your file a clear name, something short (no more than a few words) that will let you know at a glance what it is about. If you do not choose a name then the computer does it for you, poorly. A blank Word document gets the default (automatic) name of document, for example, and if it contains any text then the suggested name offered by Word is the first sentence of the text. If you download a journal article from one of the online databases available through your university's library website (see Chapter 2) then definitely choose a name for it while saving it as quite often the default name is just a number, which is not at all helpful. I usually use a few keywords that let me know what the paper is about or if I have a folder of articles on the same topic then I use the authors and publication year as the file name. It is also a very good idea to start compiling a references database from Day One. You can do this in Word, or any word-processing package, or you can use a standard references database such as EndNote, if you have access to it. References are the full citations of the books, articles and other sources that were mentioned in the text and there is a specific format in which you must produce them (see Chapter 4).

### File extensions

Quite a few people have asked me what is meant by a file extension, usually after they have been told by someone to change the file extension in an attempt to open the document using a different programme. The name of every computer file, from basic lines of codes to complex databases, usually ends in a three- or four-letter

extension (it can be fewer or more letters and numbers) and it is this that enables the computer, and the user, to identify the type of file that it is. If you double-click or right-click on the name of the file (not the icon) then you can alter the name of the file, although there is no guarantee that just changing the file extension will enable you to open it with software different to that in which it was created. You do not need to worry too much about this but I have provided a table below that identifies some of the most common file extensions. It can be a help when you are trying to organise your files or when you are trying to identify which files are your

Table 1.1 Some common file extensions

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.doc	Microsoft Word document of any version before Word 2007
.docx	Microsoft Word document created by Word 2007
.xls	Microsoft Excel spreadsheet of any version before Excel 2007
.xlsx	Microsoft Excel spreadsheet created by Excel 2007
.rtf	Rich text format. Basic text style that can be opened by most notepad or word-processing software
.pps	Microsoft PowerPoint presentation of any version before Office 2007
.ppsx	Microsoft PowerPoint presentation created by Office 2007
.wps	Microsoft Works document – never submit your assignments in this format as they cannot be opened in Word, which is what your lecturer or tutor will have on their computer
.pub	Microsoft Publisher document
.txt	Text file; very basic often plain text often created using Notepad
.sav	An SPSS database
.spo	An output file (i.e. all your statistical analyses) for SPSS
.pdf	Portable document format. They can be created in Microsoft Word if you download the appropriate plug-in file but are most commonly associated with Adobe Reader, which you can download for free. They are created and can be edited in Adobe Acrobat, which is not free
.exe	Executable file. This is a piece of software, a programme and you should only run it if you know what it is. If you receive one in your email do not open it (unless you know what it is and were expecting it) as it may be a virus, worm or trojan
.bat	Batch file; a type of executable file so do not open it if you receive one in your email
.dll	Dynamic link library file. Never delete these as they are a very important part of your computer's software
.bin	Binary file. Never delete these as they are part of your computer's system software
.gif	A common picture format
.jpg	Pronounced as jay-peg; this is a common format for pictures
.bmp	Bitmap, a common format for pictures but often a much larger file size than other formats as it may have a much higher resolution
.dot	A Microsoft Word document template. The default settings for Word are saved in a file called normal.dot and if you want to change the default settings you will be asked if you really want to overwrite that file
.wav	A common sound file
.mp3	A common music file
.zip	A compressed file or folder of files that will have to be opened in order to access the contents. Often used for fast transfer of large amounts of material via the web

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notes, your journal articles, your dataset or your statistics output. If you come across one that is not listed here (there are thousands of them!) and are curious as to what it is, then check [www.file-extensions.org](http://www.file-extensions.org).

## USB keys

The best way to store your files is on a USB key. A 1GB stick will hold every file for your whole undergraduate degree, all your notes, your essays, your lab reports and the journal articles that you download. Do not rely on just one as they are small and can be easily lost or damaged. It is possible to buy a three-pack of 1GB sticks for around £20–30 ( 25–35) so do not spend that much on a single one. Brand names are pretty much irrelevant as a memory stick/key is just a stick of RAM within a plastic coat so you are not getting a better one by buying a more expensive one. It is perfectly fine to use one as your main storage unit but do make backups regularly. They are reasonably tough but if you mishandle or step on them then you can break them, so be careful. Any computer made in this century will have at least one USB port.

## Email

You will be assigned an email address when you register at the start of your first year. You may already have several email addresses but it is very important that you use your university one, as it is to this one that important information about timetables or exams or deadlines will be sent. What you can do, however, is to set your university email account to forward into another account that you have, preferably one that has an almost limitless storage capacity, for example gmail. There will be an option somewhere in one of the menus of your email account so just follow those instructions. It is very handy to have all your email accounts forwarding to a single account, a non-university one, as when you leave the university you will not have to change your email address. For example, you have your university email forwarding to your gmail account. Once you leave university you will no longer be able to log-in to that account but because you set it up to transfer all incoming messages into your gmail account you will continue to receive any messages that anyone sends to your old address. This is particularly useful if you attended or presented at a conference but then left university or moved to a different one. The delegates can still contact you by using your old address and without having to track down your new details. If you are using an email system that shows you when your various contacts are also logged in – for example, in gmail you will see a green blob beside their name – then remember that this means they may be able to see that you are online. Be careful what you put in your status as if one of the people that you have mailed recently is a lecturer and s/he also has this facility on their mail, then your comment may be visible on their page too!

## Search engines

There is a wide variety of search engines: google, alta vista, cuil and yahoo are some with which you may be familiar. These can be a great source of information but, as

we will see in Chapters 2, 3 and 4, you should not use these to help you find information for your essays or lab reports. Anybody can put anything on the web so there will be no guarantee that the material you might find is accurate or up to date. If you do find information on a university website then this will probably be fine but you should really only use the databases that are made available to you through your university library (see Chapter 2). You will know British college or university websites from their web address, which will end with .ac.uk – American and Canadian universities have an address that ends with .edu

### Social networking sites

You can use your status or set up groups on social networking sites to recruit participants for your final year project (see Chapters 7 and 8) so long as you can obtain the appropriate ethics approval in your university department. However, the ease with which information is available on the web also means that you should be careful about what you put up on the internet. Your status on Facebook, Twitter or MySpace, for example, may be visible to other people in your university and to future employers. Photos that you post online may also be visible to any of your lecturers, tutors or classmates, so do keep this in mind. Do not post material that you would not want them to know. Just last year, for example, there was a publicised case of a young woman who was fired from her job after posting and updating her status on one of the social networking sites saying that her job was boring. I have seen students posting derogatory remarks on these websites about their university department or people in it and this really does not look well if you are hoping to get a good reference from that department and its staff. It also looks bad if you post pictures or comments about drunken or antisocial behaviour. Don't forget that your lecturers, tutors or potential employers use these sites too.

### Blogs

Weblogs, known as blogs for short, are a great way to gain experience of setting up and maintaining your own website, without having to worry about learning html code. However, you should be aware that the contents of your blog will be picked up by the main search engines once the blog has been up and running for a while. So be careful about what you post in your blog or in anyone else's blog. If you have a blog that gains a wide readership then you can use it to help you to recruit participants for your final year project, again so long as you can obtain the appropriate ethics approval in your university department.

### Improving your typing skills

In this day and age there is a presumption that everybody knows how to type. If you have recently come through the school system or if you have been working in an environment where daily computer use is a requirement then you probably can

type quite well. However, you may never have had the chance to learn to type if you are a mature student who has either been a stay-at-home parent or who has spent many years working in jobs that did not require computer use. You might find it beneficial to take typing classes but the quickest and cheapest way to learn how to type, or to improve your keyboard skills, is to do it yourself. Everyone differs in what they find helpful; I was bored in typing classes where an instructor marched over and back at the top of the room intoning ' a s d f ; l k j ' over and over. What I found to be the quickest and most fun way to learn to type was to type up articles in the newspaper or from a magazine. Yes, it is very slow when you begin but you will speed up fairly quickly. It does not matter what fingers you use to press keys and while many will say that you can only build up speed if you use the 'correct' typing method (it does help), I have seen media colleagues who are extremely quick two-fingered typists. Use whatever works for you but if your typing skills could benefit from improvement then make the effort.

## Using Microsoft Word

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If you are not already familiar with how to use Microsoft Word then the best way to learn is to experiment with the various options. Word was pretty much the same from its earliest versions to recent ones but it is very different in its 2007 form. In fact it is so different in places that it makes expert users with nearly twenty years' experience feel as though they are novices. If you have any version of Word that pre-dates the 2007 edition then do not be in a rush to upgrade unless you are prepared to take the time necessary to relearn how to do a lot of quite basic things. Teaching you how to use the various computer packages is beyond the scope of this book. However, what I will show you is some tips on how you can do various things in Word that either cause problems or you might not have used before. I will also show you a list of the keyboard shortcuts for common functions. These are a great tool as they will save you having to click through the various menus and layers to find what you want; bring you straight there and they instantly execute the command that would have taken several mouse clicks.

### Opening a document

You may think that this is as basic as it gets but there are three times when just double-clicking on the name of the file that you want to open does not work, presuming that it is a Word document or another type of text file that Word can read. I have seen students panic when this has happened, particularly if they are suddenly being told that their thesis file cannot be found.

- *Too modern:* If the file has been saved using Word 2007 and it is in that format rather than in 'compatible mode' then you cannot open it in any previous version of Word. This is a very important fact to know as if you have an older version of the software and someone is sending you a file then you must tell them to save it in your format. To save a Word document in a different format choose 'save as' and select the type, e.g. Word 97-2003 document.



- *Just won't open:* In various versions of Word before the 2007 version it occasionally happens that when you double-click a file to open it it just will not work. If you are sure that your file is a Word document or a file that should be readable by Word then just open Word and then try your document. This should work.
- *Word 2007's file cannot be found message:* In Word 2007 it happens quite often that if you double-click to open a document then it will open Word and give you an error message telling you that your file cannot be found. This is a rather annoying glitch and one that creates panic in novice users. Just try opening it after Word has opened and you will have no problem.

## Headers and footers

Sometimes students are told that they must put their name and/or student number as a header on the top of every page of their assignment. Many will know how to do this but if you have never had to do it then you may not be aware of how to set up a header and to edit it. In all versions of Word pre-2007 you must go to 'insert' and select the option for 'header' (or footer if you were told to put it on the bottom of the page; psychology does not use the footnote system). Once the box appears at the top of your page you can just start typing. However, it is likely to appear in a font and size that do not match the rest of your document so you should highlight the text and alter the font so that it matches and alter the size so that it is a little smaller than the main text. In Word 2007 you must go to 'insert', select 'header' and select 'blank', then proceed as before.

## Page numbers

You should always insert page numbers in your essays and reports, usually at the bottom of the page. In Word 2007 you select 'insert', 'page number', select 'bottom of page', and then select the 'plain number' option that places the number where you want it: on the right, the left, or in the middle. If you have a large document that is in separate chapters, or if you want to insert a very large table that will take up a page and you want to design it in a separate document, then you might not want to start on page 1 – you might want to start on page 12. Here you just need to select 'insert', 'page number', and 'format page number' to make your choice. In previous versions of Word you must select 'insert' and 'page numbers' and everything you might need will be in the one box. You can choose where you want the number to go, where you want it to start, and so on.

## Tables

In all versions of Word you can create a table by selecting 'insert' and 'table'. You can use the grid to select the number of rows and columns you want, if it is a small table. Alternatively, select 'insert table' and choose the number of rows and columns that you want. You should remove the gridlines before printing your document as having lines around every cell of the table looks unsightly. To do this in Word 2007 you right-click on the table, select 'borders and shading' and select 'none'. Inserting and removing rows and columns can be done in a similar way; right-click on the

table and then select the appropriate option from the drop-down menu. Alternatively, you will find various options for editing tables if you click anywhere in the table (just once) and look in the 'design' and 'layout' tabs that appear on the top of your screen.

Removing gridlines and inserting or removing rows and columns can be done in this way in older versions of Word too, but in those you can also select 'table', 'table properties', and 'borders and shading' to remove the borders. Use 'table properties' (in any version of Word) to align the table with the left or right margin or to centre it between the page margins.

### Textboxes

Sometimes you may want to insert a textbox, for example as a way of making some piece of text stand out (see the 'think about this for a moment' boxes throughout this book) or if you are constructing a model or diagram in Word. In Word 2007 you must select 'insert', 'text box' and, most usually, 'simple text box'. You can start typing immediately; it will overtype what is already there. The default setting has an indentation set up so you can drag the lower triangle on the margin (as you would to alter the margins in any Word document) to remove this. To make the text of your document flow around the box (for university work usually just top and bottom rather than wrapping around it) click once in your textbox and then click on the new 'format' tab that appears at the top of your screen. Select 'position', 'more layout options', and 'text wrapping' and then click on the appropriate icon. In previous versions of Word you just click once in your textbox, select 'edit', and 'textbox', press the 'text wrapping' tab, and select the icon of your choice.

### Dictionary

You should always perform a spelling and grammar check on your work and the quickest way to do this is to press the F7 button on your computer. Before you run the check you should make sure that the language set for Word (and your document; sometimes it seems to change by itself) is either English (UK) or English (Ireland) and not English (US). Keep an eye on this while it is doing the check because, for some bizarre reason on what are thankfully rare occasions, the language setting can change mid-check! You will spot this if it suddenly wants you to change the word endings to American-English. Be smart about what the computer suggests as a change as sometimes its suggestion will be incorrect in the context of what you meant or wrote. For example, one time I was writing an article on the history of the Irish Derby (yes, nothing to do with psychology) and Microsoft Word queried 'Maid Of Athens'. It suggested that the term 'maid' was gender-specific and perhaps I should consider using a more neutral term such as 'servant'. I selected 'ignore all' as Maid Of Athens was the name of a horse who had won the race during the nineteenth century.

If you are going to type all of your assignments on the same computer then use the 'add to dictionary' option while performing your spell-check. It will query the

names of theorists or neuroanatomical terms or any terminology that you use but which has not been pre-saved into the dictionary of Microsoft Word. If you are certain that a spelling it queries is correct then add it to your dictionary so that it will not query it in future documents. All versions of Microsoft Word produce those red and green wiggly lines under words or phrases that it thinks are incorrect and while this may be very useful in many working environments, it is very irritating if you are working in an area that contains a lot of terminology that is not included within the computer's dictionary. You can turn off these wiggly lines (select 'options' after you press F7 and untick the boxes for checking spelling and grammar as you type) but do not forget to check your spelling and grammar before you print your essay or report. You should also proofread your documents yourself as the computerised checks can miss a lot of errors, words that are spelled correctly but have been misused or are typos. Even better, you should ask a friend or classmate to proofread it for you. Why? You will learn about how expectations can influence perception when you study cognitive psychology, and it applies here. You wrote the document so you know what it is supposed to say. Sometimes our brain tells us what it should say rather than what it actually says and so we miss what might otherwise have been a really obvious error. If you do not have someone who is willing and able to proofread for you, then try to wait at least a few hours, if not a day or two, before rereading it yourself.

### Keyboard shortcuts

The first question that I ask someone if I am about to show them how to do anything on a computer is this: are you a keyboard person or a mouse person? Some people prefer to use the mouse for every command while others prefer to use the keyboard commands as often as possible. The table below shows a list of keyboard shortcuts for a variety of common commands. Most of them have been automatically set up in Word 2007 but every one of them works in older versions of Word. Most, if not all,

Table 1.2 Some useful keyboard shortcut for use with Microsoft word. Many of them work with other software too!

Function	Action with the text	Hold down	Press	Then	Then
create new document		ctrl	n		
open		ctrl	o		
print		ctrl	p		
close		ctrl	w		
save		ctrl	s		
save as		alt	f	a	
quit		ctrl	q		
select all		ctrl	a		
font		ctrl	d		

(Continued)

Table 1.2 (Continued)

<b>Function</b>	<b>Action with the text</b>	<b>Hold down</b>	<b>Press</b>	<b>Then</b>	<b>Then</b>
bold	highlight	ctrl	b		
italics	highlight	ctrl	i		
underline	highlight	ctrl	u		
subscript	highlight	ctrl	d	release ctrl button	alt b
superscript	highlight	ctrl	d	release ctrl button	alt p
select text/ highlight to perform an action	place cursor at the starting point	ctrl and shift	down arrow or right arrow		
copy		ctrl	c		
cut		ctrl	x		
paste		ctrl	v		
find		ctrl	f		
go to a specific page		ctrl	g		
find and replace		ctrl	h		
insert page number		alt	i	u	
undo last action		ctrl	z		
insert page break		alt	i	b	press OK
repeat last action		ctrl	y		
word count (pre-2007)		alt	t	w	
change line spacing		ctrl	m	release ctrl button	alt n
Left flush		ctrl	l		
Right flush		ctrl	r		
centre text		ctrl	e		
justify text		ctrl	j		
start the spelling & grammar check			F7		
close a pop-up window in Word			esc		
insert columns in the text		alt	i	c	select the icon that you want
increase font size	highlight	ctrl and shift	>		
decrease font size	highlight	ctrl and shift	<		
change a to ä (works for any vowel)		ctrl and shift	:	a (or any other vowel)	

of them also work in Word for Macs. You can assign any combination of keys that you like to any command. In Word 2007 you click on the tiny arrow that appears in the title bar (i.e. where the title of your document is displayed); it is beside a group of icons. Click that once, select 'more commands' and then select 'customise'.

You will also find, in all versions of Word, that if you press the alt key you will see either individual letters of the words in the drop-down menus become underlined or, in Word 2007, you will see a letter appear in a little box beside each tab on the ribbon at the top of the screen. While those underlines or letters are visible then pressing the corresponding key will activate the command. For example, in pre-2007 versions of word you will see the letter F of File become F when you press the alt key. If you press the f key then the drop-down menu for file will appear. Each command in that drop-down menu will also have a letter underlined, as will each item in the tabs or boxes that those commands activate. In Word 2007 if you press the alt key while the Home ribbon is showing, for example, you will see a letter appear beside the name of each of the major tabs on the ribbon (for example, **P**). If you press p then it will activate the Page Layout tab. However, unless you know or have programmed keyboard shortcuts for the commands that you use frequently, you will have to rely on your mouse much more in Word 2007 than you have had to do in previous versions.

### Importing graphs

The simplest way to add any picture, chart or graph to your Microsoft Word document is to click in the image, select 'copy', then go to your document and select 'paste' at the location where you want to insert the item. You will be able to resize the image by using the mouse to grab the bottom right-hand corner of the image and then dragging it diagonally upwards or downwards. If you resize by dragging the bottom, top or sides of the image then you will distort it. If the image that you want to add to your document is saved in its own individual file – for example, you have a bitmap image that you want to add – then just select 'insert' and the appropriate option (e.g. picture, clip art, etc.) and then select the item that you want to add. If you choose the option to insert a chart (i.e. graph) then Word 2007 will open an Excel file that has a spreadsheet template set-up for the type of graph that you chose. Just change the details within that to match your figures and the graph that Word added to your document will change to match. If you have already got a graph saved in Excel then just click anywhere in the white area above the legend and select 'copy'. Then switch back to your Word document and paste in the graph.

### Printing options

When you are printing essays or lab reports you will print on one side of the page only but if you are printing your own notes then it is a good idea to fit as much as you can onto a single sheet of paper. This will not save you anything on the cost of printer ink but it will save you paper. If you look at the various options available

under the print command you will find that you can print up to 16 pages on a single sheet. For a Word document you will probably find that putting any more than two pages on a sheet will result in print that is too tiny to read. You will also notice that you can print odd-numbered pages or even-numbered pages only. If you select one of these you can then turn over the printed pages and print the other pages on the back. Printers will differ as to how you reinsert pages that have been printed on one side so that you can print on the other side. Experiment with a test page before sending your whole document to print. If you ask your computer to print two pages to a sheet and you print on the front and back of the paper, then you can put a total of four pages of type onto a single sheet of paper. That will reduce both your costs of buying paper and of printing if you have to pay per page in your university labs.

### Unusual or accented characters

You will notice that the final item on the shortcuts table shows you how to change the letter a to ä (it works for all the vowels). Of course you may want to use different characters, such as ç, á, ñ, Σ, δ or Ψ, for example. There is a really useful application on your computer called Character Map; it is usually in the accessories menu but if not have a hunt for it as it will be there somewhere. Save a shortcut to this accessory on your desktop or in your start menu so that you can find it easily in future. Set the font to the one that you normally use in your essays or reports and then when you need to use an accented or non-roman character copy it from Character Map and paste it into your document. You may need to alter the size of the pasted character to match the size of the text in your document.

### Fractions

If you want to type a fraction in Word, say one-third in numbers (in a results section and not in the main text where you will write one-third in full) then type 1/3, select the 1 and superscript it (see the shortcuts table), select the 3 and subscript it. Just make sure that you had at least one character typed after the 3, even just a dot, or else everything you type after the 3 will also be subscripted!

### Searching in all of your files

You may have lots of Word documents saved on your computer but want to find a specific point or piece of information. You do not need to open each file and search through it as the computer will do this for you! Open Windows Explorer (if the files are on your hard drive) or insert your USB key (if that's where the files are), click once on the folder in which your documents are saved, and then hold down the ctrl key and press f. This will bring up a search window. You will see a box on the top right-hand corner of this window and in there you will type the word or phrase that you want to find. The search will show you a list of all the files in that folder that contain the word or phrase. Then you can just open each one separately and search within them (by holding down ctrl and pressing f) until you find what you are looking for.

## Using Microsoft Excel

These days students will tend to use mainly word-processing, presentation and statistics packages when studying psychology and maybe also a references database. SPSS is the most commonly used statistics software for psychology and you will be trained on how to input, code and analyse data and how to produce graphs of your results. As a result, students will rarely use Excel in psychology although it does have a very valuable function. If you are going to be using Excel as part of your classes then you will be trained on it so I am not going to give a tutorial here on how it works. However, I will point out a few useful tips.

### Central database

There is a quirky bug in SPSS whereby your data is not being saved when you think that it is (it is rare, but it happens) and so I always input all of my data straight into Excel. Then I copy and paste the specific variables that I want for my analysis into SPSS. It may sound time consuming but, trust me, it is really annoying when you have been saving your work all day only to find, when you try to shut down the program, that it was only kidding and your work has not been saved. A beauty of using Excel as your central database is that you can keep all your data for the one project (no matter how many subparts it may have) or for a series of related projects in one single easy-to-manage file – a master file, if you like. This is particularly helpful at postgraduate or postdoctoral level! Your SPSS files, therefore, need only contain the variables that are of interest for the particular analysis that you want to perform today or for one specific study. Sometimes it may be weeks or months before you will return to the details of a study that you have performed; maybe you are going to write it up as a paper or poster (see Chapter 9). If you have loads of variables that relate to different but connected studies then you could find your own dataset hard to follow. You may have to submit your raw data file with a lab report or your final year project (also called an undergraduate thesis or dissertation; see Chapter 8) and if you maintained a master file in Excel but copied only those variables that you needed for the single project, then your SPSS file will be much easier to follow for the reader who is seeing your data for the first time.

### Coding variables

If you are going to adopt Excel as a database then use a column for each variable (because that is the way it is set up in SPSS) and code variables where relevant. This will make more sense to you when you are learning about statistics but, in a nutshell, here is what I mean. Everything must be coded numerically in SPSS in order to be able to perform statistical analyses (as it does in Excel if you are going to perform calculations there). So gender, for example, may be entered in your database as 1 and 2 instead of female and male; the numbers represent the words and the software can only perform calculations on numbers. At the bottom left-hand corner of an Excel spreadsheet you will see some tabs; there are several layers available to

your database, different pages if you like. You will be entering your data on the top tab. Click on the second tab and make a note on that page that you have coded gender as 1 = female, 2 = male, or however it was that you coded the variable. When you later import the column of figures into SPSS (if you choose to use Excel in this way; many people will just enter their data directly into their statistics package) you will only have to look at your message on tab 2 to know what the numbers mean; then you can tell SPSS how to recognise those numbers. Be aware though, there is some sort of bug or conflict in programming code in effect between SPSS and Excel when it comes to understanding dates. Even though you might set them up in the same way in both programs, SPSS may transform the dates or just fail to recognise the variable; it is an infuriating situation. I and others I know who use Excel as a main database have not found any other problems other than the dates issue.

### Producing graphs

It used to be a recommendation to students that you should produce your graphs in Excel or in Word Graph rather than in SPSS as these were better. The most recent versions of SPSS make it easier to edit and format graphs so this is no longer an issue. If you do want to produce a graph in Excel then hold down the control key (ctrl) and left-click once in the very top cell (the one that automatically has a letter in it) of each of the columns that you want included in the graph. Then select 'insert' and click on the type of graph that you want. If you want the graph to show, for example, the mean scores (i.e. average) for each group then you will have to include a column on your spreadsheet that has calculated those scores. Simply type the formula in the first cell in that column, for example =SUM(B1:D1)/3, press enter, then copy the contents of that cell and paste it into all the others in the column (down to the last line of data that you have entered). This copies the adjusted formula (not the answer) into each of the cells, so in the next row it would read =SUM(B2:D2)/3. Don't worry about this formula; if you are going to have to use Excel for calculations you will be taught how to do so in class.

### Using Microsoft PowerPoint

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Everyone associates PowerPoint with giving presentations. You put information on each slide and you can do all sorts of cool stuff like adding sound effects or video clips or fading letters and more. There is lots more that you can do with it and two of the useful applications for students are below.

### Producing posters

It often comes as quite a surprise to university students to learn that academics produce posters. They are a valuable way of presenting your research at conferences, both public ones and the private mini-conferences that may be organised specifically for your lab class. Use PowerPoint to design your poster, which must be presented



within specific guidelines; these are not collages or gimmicky ways of advertising something. See Chapter 9 for details on how to go about doing this.

### Producing charts or other images

It is likely that you will want to produce charts or diagrams or other types of images to include with some essays or reports. For example, you may be writing an essay for a social psychology class and want to include one of the models that shows how attitudes and behaviour are linked. Or perhaps you are writing an essay for a neuroscience class and you want to show a diagrammatic model of how certain pathways in the brain are structured. If you draw these models, with textboxes and arrows, in Word then each item is a separate thing and so if you were to insert a line of text somewhere above it then your diagram can become distorted. If you draw your model in PowerPoint you can then copy it into Paint (which comes with all computers with Microsoft operating systems) or any other drawing package, save it as a picture, and then paste the picture into your Word document. You can easily resize the image in Word, by dragging the bottom right-hand corner diagonally (so as not to distort the image).

### Printing

Another useful thing that you should know about PowerPoint is that you can print multiple slides on a single sheet of paper. This may sound obvious to someone who is very familiar with the software but many students will have no prior experience of using PowerPoint and so do not realise that this facility exists. These days many lecturers will make a copy of their PowerPoint presentation available to students some time after a lecture (see Chapter 2 for additional information). You may wish to print out a copy so that you can add your own notes beside each slide, but if you just select 'print' and press OK then it will print a single slide on a single sheet; thus a 40-slide lecture would use up 40 pages and you may have to pay to print each page! Here's what you can do instead:

- select 'print'
- under 'print what' change 'slides' to 'handout'
- this will now bring more options to the front and you will see that it is set to print six slides to a page; you can change this
- if you select 'scale to fit paper' and then the slides may appear a little larger on your printed page than they would have otherwise have done
- to make sure that it is set to print A4 and not letter (as the default setting may be), click on 'properties', 'layout', and 'advanced', and change the paper size if needed
- as with Word, you can select to print odd pages and then even pages, so that you can print on both sides of the paper.

### Using Adobe software

You are probably already familiar with Adobe Reader as any document that you may have come across that is saved in a pdf format will open using that software.

You can save these files under any name that you like but many people are unaware of how easy it is to search through these documents. If you hold down the ctrl key and press f then a search box at the top of the screen will be highlighted. Type your search terms in there – this could be a single term or name, anything – and then press enter. The document could be thousands of pages long yet in a few seconds it will let you know if the term is contained anywhere within it. If it finds the term but you want to continue the search just press enter and it will move on to find the next occurrence of the search term.

### Searching in all of your files

You may have lots of pdf documents saved on your computer but want to find a specific point or piece of information. As with Word documents, you do not need to open each file and search through it as the computer will do this for you! Just perform the search the same way.

### Editing pdf documents

Adobe Reader is free to download and use but, as its name suggests, you can only read documents; you cannot edit them. If you prefer to keep all of your files on a computer rather than printing out journal articles, which can really build up over the course of your degree, then you may want to be able to highlight passages or add notes or comments onto the pdf files. You have a choice here as to what you can do. You can open the file, select all (i.e. hold down ctrl and press a), copy (wait until the progress bar has gone the whole way across), and then paste the contents into a blank Word document. This will eliminate formatting and you may not get any tables and graphs that were in the document but you will have the text. If you want to be able to highlight and make notes on the pdf file in its published format then you will need to buy a copy of the Adobe Acrobat software. You should try the 30-day free trial before making a final decision as to whether or not you want to buy any software package but Acrobat is excellent. It has a wide variety of tools that allow you to make all sort of additions and edits to pdf files, from highlighting text to adding notes and tags.

### Using Moodle, Blackboard (aka WebCT), turnitin.com

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If you are going to be using Moodle, Blackboard (WebCT) or anti-plagiarism software such as turnitin.com (see Chapter 4 to find out what we mean by plagiarism) then you will be given full training on this in your classes. I am not going to give you a tutorial on these here but I will talk briefly about what these are and why we use them.

### Virtual learning environments

Moodle and Blackboard are two very popular examples of a virtual learning environment (VLE); there are others too and even Second Life is now being used by

some universities as a form of VLE. If you are a full-time day student then you may never encounter any of these excellent teaching tools, although some departments do use them as a supplement. If you are studying via distance education then you may find that you will be spending quite a lot of time online. These tools have a variety of uses. They are effectively private and interactive websites where course materials, assignments, and even actual classes may be available. There may be a general chat room facility set up, discussion forums for specific aspects of your course or for individual assignments, and possibly lots of resources, such as PowerPoint slides, glossaries, links to websites, podcasts, text documents, diagrams, databases, journal articles and more. You may also be allowed to submit your assignments through the VLE, which can then be scanned to detect plagiarism (not by you though), or you may have to take part in discussions or other tasks in order to obtain a course credit. Departments may choose this forum to pass on timetable updates, exam schedules, and other types of information, so if your class or department uses a VLE then make sure that you log in regularly to check for new additions or information. One of my favourite features in Moodle is the glossaries. For example, you might mention the term 'correlation' in a message that you post on one of the discussion fora and then notice that it appears as **correlation**. This means that this term is included as an entry in a glossary on the site and if you click on the highlighted word you are brought to the glossary entry. How cool is that?!

### turnitin.com

More and more universities are subscribing to websites such as turnitin.com and you may be required to upload a copy of your essays and lab reports to a file that has been set up specifically for your class. You will be shown how to register on the site and you should make a note of your username (usually your email address) and password (of your choice). Your teacher will give you a code and password that represent her/his class and you must use these to 'register' for their class. You can then save a copy of your finished essay or report into the folder that has been opened for that assignment (you will be asked to insert your password). The software behind the site then examines your document against all published articles, websites, any essays that have ever been submitted on the site, and also books. It will produce a report for your lecturer and this shows the percentage of your submission that matches other sources. Many of these matches will be completely innocent and lecturers who use the system will know how to recognise this. If your assignment produces a score of under 5 per cent it will often not get a second glance as far as potential penalties for plagiarism are concerned. However, if there is a larger proportion of your assignment that matches other sources you may be penalised and if that proportion is high enough (here the cut-off will vary) then you may fail. Plagiarism is a form of cheating. Do not upload your assignment for one class into a different lecturer's online class or you may find that you get no credit for the assignment as you failed to submit it correctly and on time.

## Some other useful resources

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### EndNote, ProCite and other reference databases

If you have access to reference database software then avail yourself of any opportunity that your university provides for training on them. Your department may not offer any instruction on their use but the library or IT services may do so. Alternatively, you can download the software, usually through your university's library site, and the instruction manual and try to figure them out yourself. There may be one or more postgraduate students who are willing to give you some guidance on them and it is possible that if several students place a request with their department then a special class or tutorial may be arranged. I am not going to provide a tutorial here on how to use them but if you consult the final section of Chapter 2 you will find brief instructions on how to add citations from library databases into your reference database.

So what are these databases? When you are making notes (see Chapter 2), writing essays (see Chapter 4) or reports (see Chapter 8) you must provide citations for every source that you mention or use. You may feel that you are giving your ideas and opinions but what you are doing, except in rare cases, is giving your explanation and interpretation of what other people have done and said and how these points, ideas, and arguments support or refute your position. If you look at the back of this book then you will see what a references section looks like; there are some guidelines on how to write your references provided in Chapter 4. Every time you make a single note from any source that you use then add the citation, in full. Do this from Day One! You should then compile these citations in a database. If you can use EndNote, ProCite or similar software then these will add a link to Microsoft Word and you will be able to get the database to generate the references section of your essays and reports; it's a great time-saving device. You can also add links to the pdf version of the journal article that you have included in your database so that when you want to consult it again you can just click on that link and it will bring you there. If you do not have access to any of the databases then create your own. Create a Word document and type in your references in the APA format. You might decide to create a number of large tables in your document, one for each broad topic and then paste the individual references into the appropriate table. Then all you have to do when using any of them in your assignments is to copy and paste them from one document to the other.

### Online survey tools

Research design is discussed in Chapter 7 so I will make just a brief note here on the use of online survey tools; [www.surveymonkey.com](http://www.surveymonkey.com) is one popular example. These tools allow you to put your research questionnaire on the web so that users can respond anonymously. The data will be collated by the site and you can then copy this into SPSS for analysis. Each of these online tools has its own instruction manual and also terms and conditions and you will have to pay to use some of them

or features in others. One of the reasons why surveymonkey is so popular is that you can set up a basic questionnaire for free. However, this free access places restrictions on the number of items that you can include in your questionnaire and the number of participants who will be allowed to respond. You may find that the free version of these tools will not allow you sufficient access to meet the requirements of your larger undergraduate projects. Your questionnaire will also have had to have been approved by your supervisor and your department's ethics committee. Another concern is that you may not be able to target the specific population or demographic that you need for your study; if it's online then anybody anywhere can respond. Also, you are relying on the honesty of your participants; how do you know that they have not lied or that one person has not answered your questionnaire several times using different demographic details and answers? When it is time for you to start thinking about the design of your individual research project in your final year then check out which sites are active and what restrictions, access or costs issues need to be considered.

## Summary

People who have been using the various features of computer systems and software packages for quite some time will often forget that novices will not know these things and so instruction or tips may not be provided. Often the best way to learn how to use software is to play with it, try the different functions, and then see what happens – making a note of what works. You will not damage the computer by doing this. This chapter has provided a series of tips and shortcuts for handling computers and their software. Providing detailed tutorials on these is beyond the scope of this book but there are many excellent online tutorials available and many self-help manuals that can provide detailed and step-by-step instructions, so make sure that you have a look at some of them if you want further information on any of these topics.