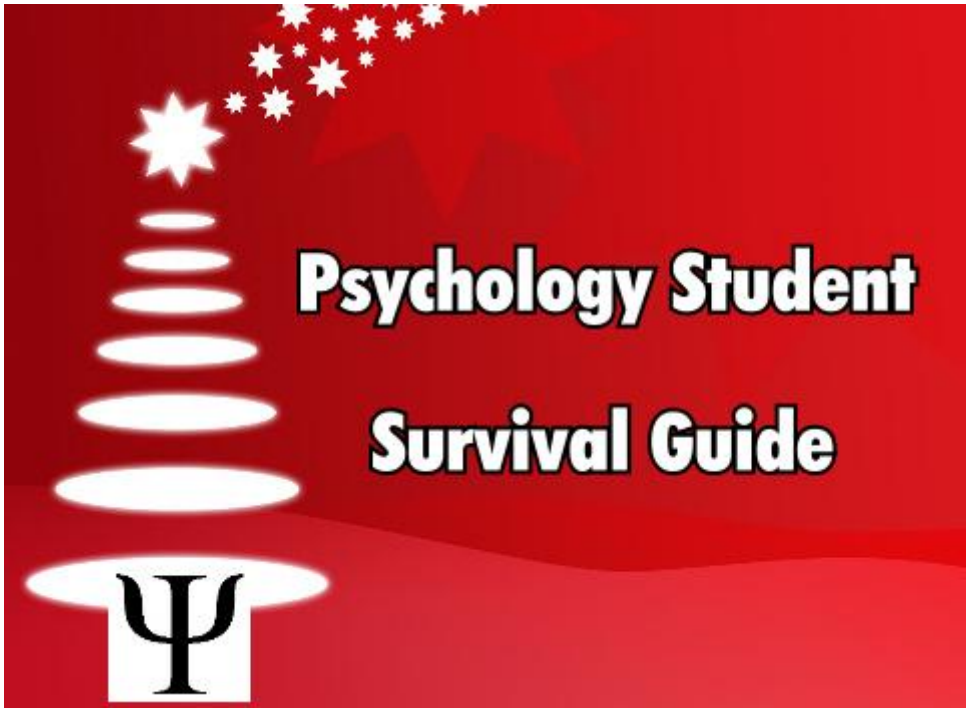
www.all-about-psychology.com



A Comprehensive Information Resource

By David Webb

(First Edition, August 2010)

INTRODUCTION

A very warm welcome to the Psychology Student Survival Guide, my name is David Webb and I've had a passionate interest in psychology for over 20 years. I began studying psychology in 1990, and I've been teaching psychology in some capacity or another since 1998. In March 2008 I launched a website designed for anybody looking for informed and detailed information on psychology.

ALL-ABOUT-PSYCHOLOGY.COM

www.all-about-psychology.com

A primary aim of the website is to make psychology accessible and open to all, and from day one it has sought to embrace the spirit of web 2.0. Web 2.0 links people, it's a place where people contribute, share, collaborate and learn.

By drawing on the very best that the website has to offer, the Psychology Student Survival Guide is offered with this same spirit very much in mind.

The Thinking Behind The Guide

In putting the Psychology Student Survival Guide together, I've kept one main thought in mind; namely, if I was to go through my psychology education again - beginning when I first started considering studying the topic, right through to graduation and beyond - what information and resources would I most like to have at my disposal?

The primary aim of the Psychology Student Survival Guide, therefore, is to provide an easy to use online reference tool that people can use to quickly locate the information they require.

Finding Your Way Around

(Photo Credit: Graham Alsop)

I've attempted to organize the information as logically as possible by presenting material chronologically as far as the timeline of a typical psychology student is concerned (general interest, undergraduate, graduate).

I've also included a detailed contents section at the beginning of the guide to help people quickly establish where the information they're after is most likely to be found.

I sincerely hope that you find the Psychology Student Survival Guide useful and engaging whatever your connection with the subject; student, educator, professional or general interest.

All the very best,

David Webb.

www.all-about-psychology.com

www.all-about-forensic-psychology.com

www.all-about-forensic-science.com

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Types of Psychology

This section of the guide is designed for psychology students looking for information on a particular branch of psychology, or topic area within psychology. Topic areas are arranged within 3 categories, academic, professional and popular.

Academic

Professional

Popular

Research Methods & Statistics

The support material in this section of the guide is designed to convince psychology students that research methods and statistics should be embraced not feared.

Academic Study Skills

This section of the guide is designed to help students studying psychology get the most out of their course, program or degree.

Referencing

Given its own section within the guide because so many psychology students underestimate its importance.

Psychology Student Resources

A collection of invaluable resources.

Must Visit Websites

Showcasing a handpicked collection of quality websites.

Top Tips For Psychology Students

Psychology Student Career Information

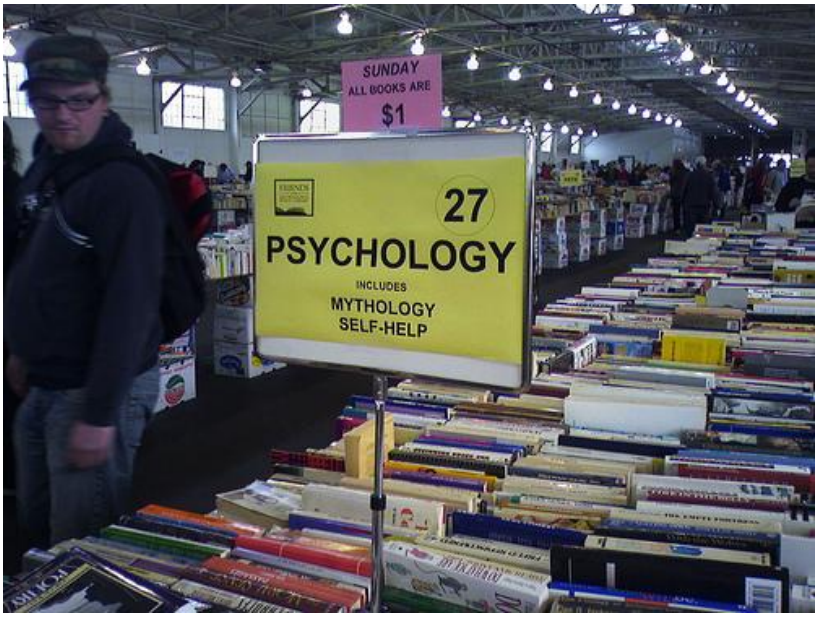
This section of the guide is designed to help students consider their career options by exploring what they can do with their psychology degree.

Psychologists

This section of the guide is designed to provide detailed and definitive answers to the most commonly asked questions relating to the practice of psychology.

And Finally

What is Psychology?



(Photo Credit: Peter Merholz)

Having a good grasp of what psychology is all about is essential for anybody wanting to study the topic in greater depth. Now this may sound like a really obvious thing to state but psychology is a term that is often misunderstood and used around without any real consideration as to its actual meaning.

A classic case in point being the usual response you get from people when you tell them that you teach psychology; namely, "I better be careful what I say", or "so do you know what I'm thinking then?

Confusion over the meaning of psychology is not restricted to members of the public. When I first started teaching I met a number of psychology students coming towards the end of their degree that admitted that they were still not 100% sure what psychology was!

Psychology Definitions

To help understand the ambiguity surrounding psychology, let's start by taking a look at a couple of definitions.

Psychology is the scientific study of people, the mind and behaviour. It is both a thriving academic discipline and a vital professional practice. (The British Psychological Society)

The scientific study of the behavior of individuals and their mental processes. (American Psychological Association)

The constant theme across these definitions is that psychology is fundamentally concerned with understanding Behavior.

So What's The Problem?

Basically, a lack of unity. Within psychology there are multiple and often competing levels of explanation when it comes to understanding behavior. When you begin studying psychology you quickly realize what a disparate topic area it is, and at times it can almost be overwhelming.

Keep It Simple

Particularly when you're starting out. Just keep hold of the notion that psychology is basically about behavior. You can't be expected to know all the different ways there are to explain behavior straight away; but as you are introduced to more and more you'll find that you'll soon be able to place a behavioral explanation within an appropriate psychological framework.

Not To Be Confused With Psychiatry

A common misconception about psychology is that it is synonymous with psychiatry. It is not. Psychiatry is a distinct medical specialism (all psychiatrists have a medical degree) that is fundamentally concerned with mental disorder. Psychology has a much broader focus and is not inextricably linked to the concept of mental illness.

What Do Psychology Students Study?

As you will discover in the types of psychology section below, there are a number of common, often compulsory topics that students traditionally study when doing a psychology course, degree or program.

AP Psychology

A useful frame of reference as to what specific topic areas a psychology student is likely to study can be found in The AP Psychology course description. AP stands for Advanced Placement and consists of a course and exam in psychology equivalent to an introductory college course in psychology. AP is accepted by more than 3,600 colleges and universities worldwide.

AP Psychology Content Areas

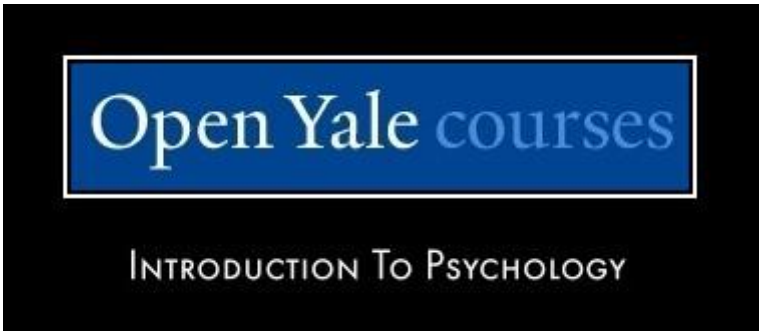
- History & Approaches
- Research Methods
- Biological Bases of Behavior
- Sensation & Perception
- States of Consciousness
- Learning
- Cognition
- Motivation & Emotion
- Developmental Psychology
- Personality
- Testing & Individual Difference
- Abnormal Behavior
- Treatment of Abnormal Behavior
- Social Psychology

A detailed description of each of these content areas is provided in the official College Board AP psychology course description. See following link.

http://apcentral.collegeboard.com/apc/public/repository/ap-psychology-course-description.pdf

Do You Really Want To Be A Psychology Student?

The best way to answer this question is to have a trial run at being a psychology student; and the brilliant news is that thanks to Professor Paul Bloom and the Open Yale Course initiative you can do just that for free, in your own time.



Background Information

Open Yale Courses provide lectures and other materials from selected Yale College courses to the public free of charge. Each course includes a full set of class lectures produced in high-quality video accompanied by such other course materials as lecture transcripts and suggested readings. As with all the Open Yale Courses, the introduction to psychology course is designed for a wide range of people around the world, among them self-directed and life-long learners, educators, and high school and college students.

Course Description

What do your dreams mean? Do men and women differ in the nature and intensity of their sexual desires? Can apes learn sign language? Why can't we tickle ourselves? This course tries to answer these questions and many others, providing a comprehensive overview of the scientific study of thought and behavior. It explores topics such as perception, communication, learning, memory, decision-making, religion, persuasion, love, lust, hunger, art, fiction, and dreams. The course will look at how these aspects of the mind develop in children, how they differ across people, how they are wired-up in the brain, and how they break down due to illness and injury.

You can access the Introduction to Psychology course via the main website (see link below). Here you will find videos and MP3 audio files of all the lectures, along with the lecture PowerPoint slides. As you work your way through the course you can even have a go at the Midterm and final exams.

This really is an outstanding resource and provides the perfect opportunity for anybody wanting to get a real feel for what studying psychology is like.

So what are you waiting for? Check out the following link to find out if psychology is for you.

http://www.all-about-psychology.com/learn-psychology.html

Types of Psychology

This section of the guide is designed for psychology students looking for information on a particular branch of psychology, or topic area within psychology. Each type of psychology listed below includes a link to its own page which includes a clear and concise description of the psychology topic in question, along with links to related quality information resources and essential reading texts.

A word about the categories

All the different types of psychology listed here will be placed in one of three categories. These categories are designed to help students understand the context in which a particular psychology topic is likely to be encountered. As such, they should neither be seen as definitive, nor exhaustive.

Academic Psychology

This category covers the core, often compulsory topics within psychology that students traditionally study when doing a psychology course, degree or program. Many of these areas within psychology draw upon a broad range of related theory and research.

Abnormal Psychology

(Photo Credit: Trois Têtes)

http://www.all-about-psychology.com/abnormal-psychology.html

Biological Psychology

(Photo Credit: Euskalanato)

http://www.all-about-psychology.com/biological-psychology.html

Cognitive Psychology

(Photo Credit: Carl Farbman)

http://www.all-about-psychology.com/cognitive-psychology.html

Developmental Psychology

(Photo Credit: Dave Bleasdale)

http://www.all-about-psychology.com/developmental-psychology.html

History of Psychology

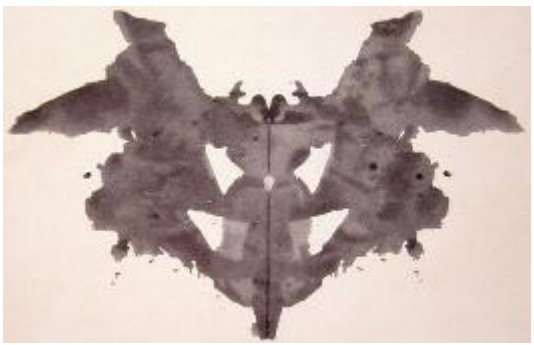
http://www.all-about-psychology.com/history-of-psychology.html

Personality Psychology

(Photo Credit: Thomas Hawk)

http://www.all-about-psychology.com/personality-psychology.html

Psychological Testing



http://www.all-about-psychology.com/psychology-tests.html

Social Psychology

(Photo Credit: The Waving Cat)

http://www.all-about-psychology.com/social-psychology.html

Professional Psychology

This category covers types of psychology that have a distinct career path. All the specialist areas listed below have specific educational and training structures in place which allow people to become officially sanctioned as psychologists.

Clinical Psychology

(Photo Credit: Charles Strebor)

http://www.all-about-psychology.com/clinical-psychology.html

Counseling Psychology

(Photo Credit: Joe Houghton)

http://www.all-about-psychology.com/counseling-psychology.html

Educational Psychology

(Photo Credit: Bindaas Madhavi)

http://www.all-about-psychology.com/educational-psychology.html

Forensic Psychology

(Photo Credit: Brian Turner)

http://www.all-about-psychology.com/forensic-psychology.html

Health Psychology

(Photo Credit: Auntie P)

http://www.all-about-psychology.com/health-psychology.html

Occupational Psychology

(Photo Credit: Grant Kwok)

http://www.all-about-psychology.com/occupational-psychology.html

Sports Psychology

(Photo Credit: Davi Sommerfeld)

http://www.all-about-psychology.com/sports-psychology.html

Popular Psychology

This category covers types of psychology that may arguably not have the mainstream gravitas of the topics listed in the academic and professional categories but nevertheless can still be considered significant areas of psychological enquiry.

Child Psychology

(Photo Credit: Daniela Hartmann)

http://www.all-about-psychology.com/child-psychology.html

Evolutionary Psychology

(Photo Credit: mwboeckmann)

http://www.all-about-psychology.com/evolutionary-psychology.html

Military Psychology

(Photo Credit Mateus)

http://www.all-about-psychology.com/military-psychology.html

Paranormal Psychology

(Photo Credit: Roadside Pictures)

http://www.all-about-psychology.com/paranormal-psychology.html

Political Psychology

(Photo Credit: Nestor Galina)

http://www.all-about-psychology.com/political-psychology.html

Positive Psychology

(Photo Credit: Thai Jasmine)

http://www.all-about-psychology.com/positive-psychology.html

Prison Psychology

(Photo Credit: FBI)

http://www.all-about-forensic-psychology.com/prison-psychology.html

Psychology of Music

(Photo Credit: Libertinus Yomango)

http://www.all-about-psychology.com/psychology-of-music.html

Psychology of Risk

(Photo Credit: Sindre Sørhus)

http://www.all-about-psychology.com/psychology-of-risk.html

Transpersonal Psychology

(Photo Credit: Hartwig HKD)

http://www.all-about-psychology.com/transpersonal-psychology.html

Research Methods & Statistics

As a psychology student, it's almost certain that you will have to learn about research methods and the dreaded 'S' word statistics. I hope that as you explore this section of the guide and follow the links to some excellent related support material, you'll realize that research methods and statistics in psychology is something you should embrace rather than fear.

Setting The Scene

Hugh Coolican notes that the key points in relation to psychology research are that:

- Psychological researchers generally follow a scientific approach.
- A scientific approach to research advocates careful definition and measurement, and the logic of testing hypotheses (predictions) elicited from falsifiable theories.
- Hypotheses need to be precisely stated before testing.
- Scientific research involves the promotion & checking of ideas among colleagues.
- Researchers employ probability statistics to decide whether effects are 'significant' or not.
- Research must be carefully planned, and attention given to design, variables, samples & subsequent data analysis.
- If there is a lack of planning in these areas results may be ambiguous, even useless.
- Some psychological researchers reject the scientific methods outlined above.
- In order to study people they advocate qualitative methods which deal with meaningful verbal data rather than exact measurement and statistical summaries.

Don't worry if you are confused by some this terminology. I promise it will become a lot clearer as you read on.

Experimental Design Tutorial

This tutorial is designed to help you understand the major concepts within the scientific approach to research.

Anyone studying psychology will have to learn about and understand research methods and statistics. The fact that research methods and statistics are nearly always compulsory within a psychology course should immediately alert you to their importance.

They matter because in order to critically evaluate the findings of key studies you need to be aware of how the data supporting those findings came about; and you can't seriously hope to conduct your own research with confidence unless you have a clear idea how to design, execute and analyze your investigation.

When I first started supervising research dissertations and psychology projects I came across a large number of students who refused to consider doing anything other than interviews, whether such an approach was appropriate for their particular investigation or not.

The most common reason for this was the incorrect assumption that qualitative research methods (text based) are much easier to understand and carry out proficiently than quantitative (number based) research methods.

Why Do So Many Psychology Students Think This?

To be fair it's understandable, words appear easier to relate to than numbers; a view which tends to be reinforced further when students first encounter the experimental method with its strong statistical component and abstract terminology. Terms like extraneous variable, independent variable etc are enough to put most people off before they start.

The primary aim of this tutorial then, is to show you that the experimental method isn't nearly as complicated or as frightening as many people think.

The following material is based on an introductory research methods course that I co-wrote with my very good friend and old colleague Dr David Tyfa.

Something To Relate To

The first thing our students did on their introduction to research methods course was to complete a word search puzzle similar to that shown above. Each student did the puzzle on a computer and when they had found all the words, the time it took them to complete the puzzle (in seconds) appeared on the screen.

Now what the students didn't realize at the time is that they were actually taking part in an experiment.

I (along with my teaching support team) took half the students into one room **PC lab 1**. My colleague Dr Tyfa (along with his teaching support team) took the other half of the students into another room **PC lab 2**.

When the students were doing the puzzle in PC lab 1 (my lab), the teaching team made their presence felt as much as possible, walking up and down each bank of computers, looking over the students shoulder, essentially being as conspicuous as possible.

In PC lab 2 (Dr Tyfa's lab) the teaching team did the opposite i.e. they remained as inconspicuous as possible and showed no interest in what the students were doing at all.

The students were completely unaware what was going on, as far as they were concerned the object of the exercise was to simply collect some data i.e. the time taken to complete the puzzle, which they could then practice entering into a statistical software package.

The true nature of the exercise wasn't revealed until the following week when I gave a lecture on the experimental method. Because what I was able to do now was introduce each key experimental design concept in turn and apply it something the students had direct experience of i.e. the word search puzzle experiment.

(Photo Credit: Athary)

Before you move on, take a look at the quick reference guide I put together which covers the experimental design concepts addressed in the lecture. Better still; print out

this page and the next so you can refer to the quick reference guide to it as you continue the tutorial.

EXPERIMENTAL HYPOTHESIS (H1)

The prediction of the outcome of the experiment

ONE-TAILED EXPERIMENTAL HYPOTHESIS

Predicts the way that behavior will change

TWO-TAILED EXPERIMENTAL HYPOTHESIS

Simply states that the behavior will change

NULL HYPOTHESIS (H0)

Simply states that any observed differences between groups were down to chance.

INDEPENDENT VARIABLE (IV)

The one factor that is different between the conditions

DEPENDENT VARIABLE (DV)

The aspect of behavior that is measured

EXTRANEOUS VARIABLE

Anything, other than the IV that might have had an effect on the result of the experiment.

CONFOUNDING VARIABLE

An extraneous variable that does effect the result of the experiment. In doing so, it becomes impossible to say whether any difference found was due to the IV or the confounding variable.

INDEPENDENT SUBJECTS DESIGN

Some subjects perform in experimental condition and others in control condition.

REPEATED MEASURES DESIGN

All subjects perform in both experimental condition and control condition

MATCHED PAIRS DESIGN

As a result of a pre-test subjects are sorted into pairs. One of the pair performs in the experimental condition and the other performs in the control.

ORDER EFFECTS

If a participant has to perform a series of actions, the order in which she/he performs them will have an effect on the efficiency of each action. The two main order effects are practice (increases efficiency) and fatigue (decreases efficiency).

COUNTERBALANCING

Employed to ensure that order effects have an equal effect by alternating the conditions.

Now imagine trying to understand these concepts without a point a reference. Thankfully you don't have to and I hope that by providing you with the same point of reference as my students, you'll see that as we examine these key concepts that they aren't that difficult to get your head around and actually make a great deal of sense.

The first thing we need to do, however, is to understand the logic of the experimental method. Namely that:

"*If two groups of participants are equal in all respects save one and are not similar in respect of a behavior that is being measured, then the difference between them must be attributable to the one way in which they were different*." (J.S Mill)

Hopefully by exploring this logic in relation to the word search experiment you'll see that it's actually very straightforward.

When we ran the experiment we had two groups of participants, i.e. some in (PC lab 1) and some in (PC lab 2). Now for the time being, let's accept that these two groups of participants were equal in all respects save one. This of course begs the question, what was the one way in which the two groups of participants were not equal?

The answer is **level of teacher presence**.

When the students were doing the puzzle in PC lab 1 (my lab), the teaching team made their presence felt as much as possible, walking up and down each bank of computers, looking over the students shoulder, essentially being as conspicuous as possible.

In PC lab 2 (colleagues lab) the teaching team did the opposite i.e. they remained as inconspicuous as possible i.e. showed no interest in what the students were doing at all.

Now if it transpired that the psychology students in PC lab 1 and PC lab 2 were not similar in respect of the behavior that was being measured (In our case the time taken to complete a word search puzzle), then according to the logic of the experimental method, this difference must be attributable to level of teacher presence. In other words

Level of teacher presence (the **cause**) made a difference in the time taken to complete the puzzle (the **effect**).

So the first thing to note about the experimental method is that it is fundamentally concerned with establishing **cause and effect**.

Jargon Buster

In addition to understanding the logic of the experimental method you will also need to understand the language that accompanies it. So let's take each concept listed on the Quick Reference Guide in turn and where possible, link it to the word search puzzle experiment.

The first thing on the quick reference guide is the **Experimental Hypothesis**, which you may see denoted as the H1. As the definition states it's the prediction of the outcome of the experiment.

Now the hypothesis is the starting point in the process of experimentation, so when we were thinking about a simple experiment that our students could do, we needed an idea that we could test; and this is what we came up with.

High levels of teacher presence in PC lab 1 will cause students to perform a word search puzzle more quickly than students in PC lab 2.

Now because we've predicted the way in which behavior will change, i.e. it will get faster, we've actually formulated a **One-Tailed Experimental Hypothesis**.

If we had simply stated that high levels of teacher presence will cause students in PC lab 1 to perform a word search puzzle differently than students in PC lab 2. We would have formulated a **Two-Tailed Experimental Hypothesis** because all we're saying here is that the behavior of interest will change.

The decision to choose a one-tailed or a two-tailed hypothesis depends on how confident you feel in predicting the way that behavior will change. We were confident enough to go for a one-tailed experimental hypothesis because a large body of research evidence suggests that the presence of others will improve performance on simple tasks.

Another type of hypothesis you need to be aware of is the **Null Hypothesis** sometimes denoted as the H0, now this simply states that any observed differences between groups were down to chance. The idea behind this is that depending on the result of statistical testing at the end of the experiment you will either reject or retain the null hypothesis. Put simply the bigger the difference between groups, the less likely that the difference is down to chance and the more likely you are to reject the null hypothesis.

Continuing with the quick reference guide let's have a look at the **Independent Variable** (the IV). This is the one factor that is different between conditions. Now the

IV is the thing that you as the experimenter manipulate in order to see if it causes a change in behavior and as already mentioned it was **level of teacher presence**.

So what about the **Dependent Variable** (the DV)? The aspect of behavior measured? Again as previously mentioned it was the time taken in seconds to complete the word search puzzle.

Hopefully you are beginning to see that although the experimental method uses unfamiliar terms like the H1, H0, IV and DV the things they allude to are not actually that complicated.

Let's go back to the logic of the experimental method and highlight the independent and dependent variables.

If two groups of participants are equal in all respects save one (**the independent variable**) and are not similar in respect of a behavior that is being measured (**the dependent variable**) then the difference between them must be attributable to the one way in which they were different (**the independent variable**).

Now, remember I said lets accept for the time being that the two groups of participants doing the word search puzzle are equal in all respects save one. Well clearly this is impossible to maintain when dealing with human subjects for the simple fact that we are not clones, we're all different and we bring our individual differences with us when we take part in an experiment.

For instance, some of the students will have had more sleep than others and this may have affected their performance i.e. they didn't finish the word search puzzle as quickly as they might have done if they'd had a proper night's sleep.

Now this shouldn't be a problem providing we are only talking about one or two people, and this kind of thing is referred to as a **random error** because things like number of hours sleep vary randomly in a population of people and it's something that cannot be eliminated.

It's when random errors become **constant errors** that you'll find yourself saying Houston we have a problem.

Remember the cornerstone of the scientific method is to establish cause and effect and we do this by manipulating the independent variable to see what effect it has on the dependent variable. In our case we manipulated level of teacher presence to see what effect in had on the time taken to complete the word search puzzle.

Now imagine if it transpired that all the students in PC lab 2 had been to the same party the night before and only had on average 2 hours sleep? Whereas; all the students in PC lab 1 had fallen out with the person throwing the party so they didn't go and so they ended up having a normal night's sleep.

You now have no way of knowing whether students in PC lab 1 performed the word search puzzle more quickly because of level of teacher presence (the IV); or whether they performed the puzzle more quickly because they'd had more sleep and as such were more alert.

In this example sleep has become a **Confounding Variable**. It's confounded your results and the experiment is ruined. This somewhat frivolous example was used to introduce you to another integral aspect of the experimental method i.e. **control**.

In the experimental method we accept that random error exists. We also accept that random error produces extraneous variables. We must, therefore, always do our best to ensure that extraneous variables do not become confounding variables.

The simplest way to do this is to **randomly allocate** people to different conditions. So in our sleep example for instance, random allocation would ensure that all the party going tired people don't end up in the same group.

This leads us nicely into the 3 main types of experimental design because as you'll see each has strengths and weaknesses in relation to control issues. Experimental design simply refers to the way in which participants are deployed during the experiment.

Before we look at the 3 designs, however, I just want to quickly outline the difference between the **experimental group** and the **control group**. The experimental group is where you expect the predicted behavior change to occur (in our case PC Lab 1 i.e. high level of teacher presence) and the control group acts as the baseline so that this

change can be assessed (PC Lab 2 i.e. low level of teacher presence). OK on to the 3 main types of experimental design.

Independent Subjects Design

Depending which book you read this design may also be referred to as independent groups, independent samples or between groups. The independent subjects design is the one we employed during the word search experiment. In this design participants are divided into entirely separate groups on the basis of random allocation, meaning that each participant has an equal chance of being allocated to either the experimental group or the control group.

Let's say we have 60 participants, we could put the numbers 1 to 60 in a hat and get participants to pick a number. Participants who pick an even numbers would go into the experimental group and participants who pick an odd numbers would go into the control group.

Each participant will provide us with a single score. It's then a case of looking at all the scores in the experimental group and comparing them with all the scores in the control group.

Repeated Measures Design

This is also referred to as the related samples design or the within groups design. In this design the participant performs in both the experimental condition and the control condition.

Each participant, therefore, provides us with two scores or paired data. It's then a case of comparing all the paired data scores to see if there's a difference between the conditions.

Now the main strength of this design over the independent subjects design is that you don't have to worry about individual differences confounding the results of your experiment because if you think about it, each participant acts as their own control.

In other words they take their random variability i.e. number of hours sleep, personality etc. with them across the conditions so that they cancel each other out.

The danger of this type of design is that **Order Effects** will confound your results. Because each participant is being asked to do something twice it's possible that they will perform better in the second condition because of practice or that they perform worse in the second condition because of fatigue or boredom.

Therefore, we must ensure that the order of the two conditions is counterbalanced.

Counterbalancing is a technique employed to ensure that half the subjects perform in the experimental condition first and the control group second. And half the subjects perform in the control group first and the experimental group second.

Counterbalancing does not get rid of order effects but it does makes sure that any possible confounding effects cancel each other out.

Independent subjects and repeated measures are the two most common types of design in experimentation and the thing to note about them is that their strength lies in the weakness of the other.

With independent subjects design you don't have to worry about order effects because you aren't getting people to perform twice; but in the repeated measures design you are this is can be a real problem. However, in the independent subjects design you have to worry about individual differences between conditions; but in the repeated measures design you don't because people take their differences with them, thereby nullifying any possible effect.

Matched Pairs Design

In this design participants are arranged into pairs on the basis of a pre-test. For instance you might pair people up who have a similar IQ. Members of the pairs are then allocated randomly to either the experimental condition or the control condition. It's then a case of comparing the paired data scores to see if there's a difference between the conditions.

Conclusion

This tutorial has covered a lot of material and it would be worth going through at least a couple more times. If some of the concepts still seem a little abstract just keep trying to relate them back to word search experiment.

Please bear in mind that the tutorial only covers simple experiments where you only have 2 conditions i.e. the experimental group and the control group and where you only have one independent variable and one dependent variable. Experiments can be more complex than this you can have more than two conditions and you can have multiple independent and dependent variables but the logic remains the same.

Finally I'd like to conclude with a definition of an experiment because having completed the tutorial it should make more sense.

An experiment is a study of **cause and effect**. It differs from simple observation in that it involves deliberate manipulation of one variable (**the independent variable**), while controlling other variables (**extraneous variables**) so that they do not affect the outcome, in order to discover the effect on another variable (**the dependent variable**) S. Heyes (1986).

Research Project Guidance Notes

Doing a psychology project, thesis or dissertation is an integral and extremely important component of a psychology course, program or degree. It should be the most enjoyable and rewarding piece of work you undertake as a psychology student. More often than not, however; planning, executing and writing up psychology research become a source of great stress and worry for many students.

With this very much in mind, I put together the following psychology project guidance notes.

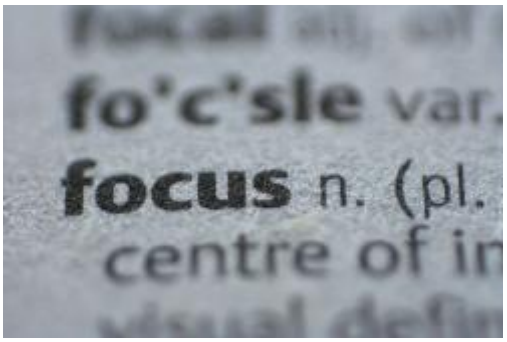
Getting Started

(Photo Credit: Matt Westervelt)

In many cases the first thing you will have to do is to submit, or at the very least think about putting together a psychology project proposal. At this stage, any general ideas you have will probably be too broad or too vague. Don't worry; you belong to the 99.9% of psychology students who find themselves in the same position.

The good thing about putting together a project proposal so soon into the process is that it will force you to refine your ideas sooner rather than later. What follows, is designed to get you thinking about the early key stages in the research process.

Establishing A Focus



(Photo Credit: Dani Ihtatho)

This preliminary stage of the psychology project process assumes that you have a general research idea in mind. Whether you consider this idea to be somewhat vague or well developed (the former being the most likely) you must establish and maintain a clearly defined focus throughout your investigation.

Unless you intend to conduct exploratory or emergent psychology research - where theoretically/philosophically you do not envisage issues and questions arising until the investigation is underway - it is extremely important that you establish your focus at the beginning of the research process.

I can't emphasize this point enough because not only will it make the whole research process much more manageable but it will also make it more likely that you receive a very good grade when your psychology project is assessed.

The main reason for this is that it will provide the foundation for what is known as the **golden thread** i.e., the major concept within your research that influences every stage of the research process; and as such, can be seen developing within each section of your psychology project write-up.

To give you some idea of the thought processes involved in establishing a focus, the following example relates to a Masters thesis I supervised a couple of years ago.

The student I was supervising wanted to look at whether any of the techniques used in criminal profiling could be adopted or adapted to investigate financial fraud. In order to develop a focus within this general area of interest, between us we explored the following questions and issues:

- The profiling techniques the student was particularly interested in.
- Eliciting the profiling perspectives that these techniques reside within e.g. classic psychodynamic FBI type profiling and the more 'scientific' approaches e.g. statistical modelling.
- Could a theoretical link be established between profiling and employee/financial fraud, the most obvious link might be that it may tell us something about the personality of the offender.
- Approaching the research from the employers' perspective, as contacting individuals who have committed fraud would be fraught with a host of practical and ethical difficulties.
- Leaving profiling aside, what about researching occupational crime prevention strategies in general? For instance, the use of cognitive interviews to detect false insurance claims. What prevention strategies do banks employ? Are these effective?

NB: In developing your focus of inquiry remember that practicality and ethics must be taken into account.

The Literature Review

(Photo Credit: Brandon Cirillo)

Another benefit of narrowing your focus is that you will have a structured search strategy in place when conducting your literature review.

It may sound obvious but having a clear idea of what to look for will save you valuable time and energy.

Unless you are researching something unique, most topic areas will have an established body of research from which to draw upon. In such cases you should endeavor to familiarize yourself with both the traditional/classic studies in the field, as well as the most up-to-date research.

Developing Research Questions

(Photo Credit: Desi Zavatta Musolino)

The main way to demonstrate and maintain your focus is to develop appropriate research questions or hypotheses. There are no hard and fast rules as to what constitutes an ideal research question/hypothesis. Nevertheless, a sensible rule of thumb is that you are able to provide a clear rationale for the question/prediction being posed.

Essentially you have to take each research question/hypothesis in turn and justify its inclusion. More often than not, this justification will have emerged from your literature review e.g. this research question approaches a particular topic from a new angle, it taps into current debate etc (NB: You should be able to provide a similar rationale for your research as a whole). Also, again don't forget 'practicality.' Is the question over ambitious given your 'time-scale', 'word limit', 'resources' etc?

Developing simple and straightforward research questions does not mean you cannot undertake sophisticated research.

You will know if you are on the right track if you ask yourself and can confidently answer the following questions.

- ✓ What am I hoping to explore in the course of my research?
- ✓ What is the thinking behind my study's research questions/hypotheses?
- ✓ Can I access a wide range of background material?
- ✓ Will it be relatively straightforward to access my target population?
- ✓ Ethically, am I on safe ground?

Top Tip

Most psychology students undertake their project in the final year of their course. Don't wait until then to start engaging with the research process. A very useful way to understand the concepts, issues and variables that researchers examine in relation to the study of psychology is to participate in their investigations.

A major benefit of becoming a research participant is that you get to see psychological research methods in action. In addition, the studies you participate in might also give you some ideas for your own psychology experiments and psychology research projects.

Over at the main website you can find details of psychology studies actively recruiting research participants. See following links for full details.

http://www.all-about-psychology.com/psychology-experiments.html

http://www.all-about-psychology.com/psychology-research-participants.html

Finally

The best advice I can give you in the early stages of your psychology project is to keep it simple and be pragmatic. Remember research is a process, and you will be assessed on how well you undertake that process.

Quality Research Methods Resources

Written by Professor William M.K. Trochim, The Research Methods Knowledge Base is a comprehensive web-based textbook that addresses all of the topics in a typical introductory undergraduate or graduate course in social research methods.

It covers the entire research process including: formulating research questions; sampling (probability and non probability); measurement (surveys, scaling, qualitative, unobtrusive); research design (experimental and quasi-experimental); data analysis; and, writing the research paper. It also addresses the major theoretical and philosophical underpinnings of research including: the idea of validity in research; reliability of measures; and ethics.

The Knowledge Base was designed to be different from the many typical commercially-available research methods texts. It uses an informal, conversational style to engage both the newcomer and the more experienced student of research.

Research Methods Knowledge Base

Psychology 101: Research and Data Analysis in Psychology

Online course lectures provided as a study resource for students which are also freely available to the public.

Research and Data Analysis in Psychology

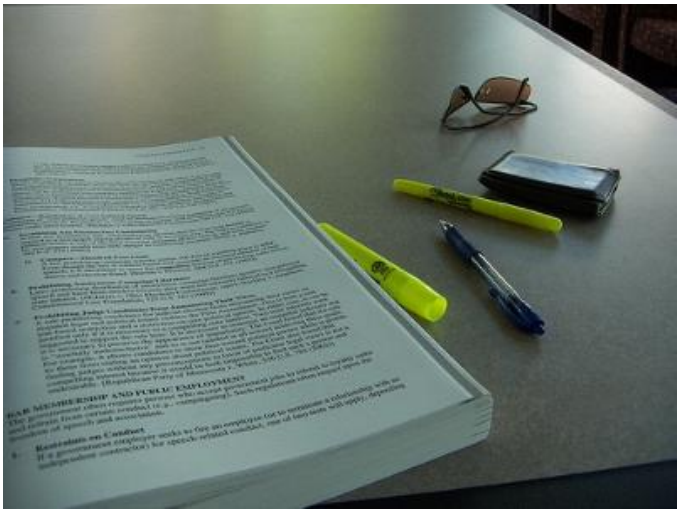
Concepts and Applications of Inferential Statistics is a free, full-length, and occasionally interactive statistics textbook by Richard Lowry, Professor of Psychology Emeritus, Vassar College, Poughkeepsie, NY, USA.

Concepts and Applications of Inferential Statistics

Resource maintained by Professor Alan Reifman from Texas Tech University which provides links to public domain questionnaires (including items and scoring keys) which can be used freely for research purposes.

Questionnaire Instrument Compendium

Academic Study Skills



(Photo Credit: Master Shake Signal)

This section of the guide is designed to help students studying psychology get the most out of their course, program or degree.

The following resource units come courtesy of OpenLearn. OpenLearn is The Open University's way of making a selection of its learning materials available free of charge on the internet to learners and educators around the world.

Before accessing any of the material listed below, I strongly recommend that you create a free Open University account. Once registered you will be able to participate in the activities associated with the learning units and receive updates from the associated unit forum.

Create A Free Open University Account

Learning How To Learn

(Photo Credit: Mark Brannan)

Unit Introduction

Learning how to learn is a process in which we all engage throughout our lives, although often we do not realize that we are, in fact, learning how to learn. Most of the time we concentrate on what we are learning rather than how we are learning it. In this unit, we aim to make the process of learning much more explicit by inviting you to apply the various ideas and activities to your own current or recent study as a way of increasing your awareness of your own learning. Most learning has to be an active process - and this is particularly true of learning how to learn. Therefore, you will find that this unit contains a number of activities for you to complete, which require you to make notes and keep records. You can either write these down in a notebook, or use a word processor, whichever you feel most comfortable with.

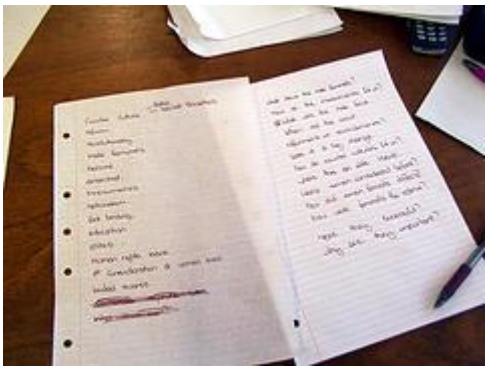
Learning Outcomes

The broad aim of this unit is to provide a framework for learning-based activities and reflective exercises. More specifically, it is designed to offer you the opportunity to:

- ✓ Think about and understand how you learn.
- ✓ Apply the ideas and activities in this unit to your own learning experiences.
- ✓ Learn how to become a reflective learner.

Access The Learning How To Learn Unit

Essay & Report Writing Skills



(Photo Credit: Styler)

Unit Introduction

Most academic courses will require you to write assignments or reports, and this unit is designed to help you to develop the skills you need to write effectively for academic purposes. It contains clear instruction and a range of activities to help you to understand what is required, and to plan, structure and write your assignments or reports. You will also find out how to use feedback to develop your skills.

Learning Outcomes

After studying this unit you should be able to:

- ✓ Understand what writing an assignment involves.
- ✓ Identify their strength and weaknesses.
- ✓ Consider the functions of essays and reports.
- ✓ Develop writing skills, whatever the stage they have reached.

Access The Essay & Report Writing Skills Unit

Extending And Developing Your Thinking Skills

(Photo Credit: Karola Riegler)

Unit Introduction

This Unit is designed to take you on a journey of understanding. You will be introduced to a variety of thinking skills and ways of extending and developing your thinking. You will begin by looking at why thinking skills are important in education, and what kinds of skills are valued. You will then move on to some practical strategies and ideas for further activities and reading.

Learning Outcomes

After studying this Unit you should:

- ✓ Feel more confident about studying.
- ✓ Understand any grades you are given and how to improve them.
- ✓ Be able to overcome problems with reading and writing.
- ✓ Be able to make the most of the opportunities a higher education course provides for developing your skills.

Access The Extending & Developing Your Thinking Skills Unit

Revision & Examinations

(Photo Credit: Harry)

Unit Introduction

Do you get stressed at the thought of an examination? Does the idea of revision fill you with dread? This unit will provide a host of tips to help you improve your revision and examination techniques and enable you to manage your time effectively by creating a timetable for your revision.

Learning Outcomes

This unit will:

- ✓ Help you to manage your time more effectively when you're revising and in the exam itself.
- ✓ Help you to learn, or brush up on, revision and exam skills.
- ✓ Offer reassurance to those of you who experience anxiety and stress at exam time.

Access The Revision & Examinations Unit

Giving Presentations

(Photo Credit: Jeremy Wilburn)

Unit Introduction

Effective communication is the key to a successful presentation. This unit will provide you with a systematic approach to develop the necessary skills. It is important to understand that effective presentation skills can be practised and learned. It is the content of your presentation, and the simple delivery of clear and reasoned arguments, which will help you to achieve your objectives.

Learning Outcomes

The broad aim of this unit is to provide a framework for learning-based activities and reflective exercises. More specifically, it is designed to offer you the opportunity to:

- ✓ Understand the need for effective presentations.
- ✓ Assess your own strengths and weaknesses in meeting this need.
- ✓ Develop some of the specific skills and practices required.
- ✓ Create a series of practical checklists and strategies.
- ✓ Use reflection and feedback to develop further your abilities as a presenter.

Access The Giving Presentations Unit

Referencing

Importance

I decided to give referencing its own section within the guide because so many psychology students underestimate its importance, but the simple fact is that from an academic perspective, referencing is vitally important.

The cornerstone of any academic writing be it a term paper, essay, research project or dissertation is the dissemination of ideas. References, i.e., source material based on the views, opinions and research findings of others provide the conceptual framework necessary to engage in analytical debate.

Imagine you had to write an academic answer to the following question without references.

Psychology is Unscientific: Discuss

Impossible, however, passionate or valid your personal view on the topic is e.g. "I disagree, I actually think psychology is scientific because..."

I'm afraid from an academic perspective an unsubstantiated personal opinion is not worth the paper it's written on. This is why the convention within academia is to write in the third person?

A key aspect of referencing that psychology students tend to overlook is the fact that references allow the reader to identify access and use the material themselves.

It is also crucial to reference properly so that there can no possible suggestion of plagiarism i.e. taking and using the writings of others and passing it off as one's own. Plagiarism is an extremely serious offence and can result in a student been expelled if found guilty.

When you begin your school, college or University course you should at some point (usually in the first week) be given specific guidelines on the standard referencing style required. In most cases this will be the APA referencing format, although many UK institutions favor the Harvard system. Make sure you have these guidelines to hand whenever you do any form of academic writing. It's the best form of referencing quality control you can have, so use the guidelines as intended.

Most Common Referencing Mistakes

Without doubt the most common referencing format mistakes relate to the increasing popular practice of obtaining source material via electronic means e.g. the Internet. Most Internet references will have been accessed via a specific web page, however, remember there are other Internet sources e.g. newsletters, online newspapers, e-books etc.

APA style referencing guidelines suggest that an Internet source should provide a document title or description, a date (either the date of publication or update or the date of retrieval), an Internet address (URL) and whenever possible, the author(s) of the source material as well.

Number One Referencing Tip

Whenever you do an academic assignment make sure you write down the full reference of each source as you find it. Many psychology students, including myself in the past, fail to do this.

Taking notes from the source for possible inclusion in the written assignment is fine but if you do decide to use the material, you can find yourself wasting hours of your valuable time trying to retrace the books you used, returned to the library etc.

This problem is particularly acute when students are doing a thesis or dissertation, involving literally hundreds of references.

Writing references as you go along may mean you record a host of references that you don't actually end up using; however, the time wasted doing this pales into significance compared with the alternative.

Quality Referencing Tools

Must have free psychology software. The Student's Guide to APA Psychology shows you how to document and format research papers in the style of the American Psychological Association and the American Psychologist. Revised and updated to the new 5th edition of the APA Publication Manual.

Student's Guide To APA Psychology

Produced for psychology students in the UK and hosted by the University of Huddersfield. This website is designed to assist you in developing your skills in summary, citation and referencing in order to help you with coursework such as essays and laboratory reports. The examples and discussion are all psychology specific in order to encourage your skill development clearly located in your chosen discipline - psychology.

Reference Psyte

Psychology Student Resources

Introducing a collection of quality resources that students should find invaluable during their psychology course, program or degree.

Psychology Writing Center

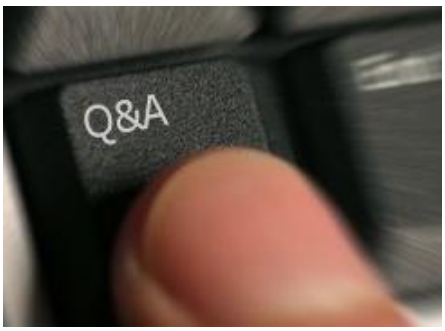
DEPARTMENT OF PSYCHOLOGY
UNIVERSITY of WASHINGTON

The Psychology Writing Center has produced over 20 very useful writing guides, all of which can be downloaded for free. Topics include:

- Writing An APA Empirical Lab Report
- Writing A Psychology Literature Review
- Summarizing A Research Article
- Reporting Statistical Results in APA Format

Psychology Writing Center

Psychology Q & A



Psychology Q & A is a knowledge sharing resource where anybody can ask or answer a question relating to the fascinating world of psychology. Psychology Q & A is open to anybody and is designed to be a place where people with an interest in psychology can come along to help and be helped.

Psychology Q & A

Read Psychology Classics For Free

Initiative to make important, insightful and engaging public domain works in psychology freely available. Students can now access classic full text psychology journal articles, including material from the most eminent and influential psychologists of the 20th century.

Classic articles available include:

- The Myth of Mental Illness by Thomas Szasz.
- Forming Impressions of Personality by Solomon Asch.
- Persons or Science? A Philosophical Question by Carl Rogers.
- Hierarchy of Needs: A Theory of Human Motivation by Abraham Maslow.
- Transmission of Aggression Through Imitation of Aggressive Models By Albert Bandura.

You can access the full collection via the following website links.

Psychology eBooks

Psychology Journal Articles

Alternatively, you can read and download every publication online via Scribd.

http://www.scribd.com/psych101

Psychology Articles

(Photo Credit: Bezanson)

Whether you're writing a paper, conducting a literature review or simply wanting to learn more about a topic area, it's very important to be able to bridge the gap between theory and practice within psychology. A very useful way of doing is to read and draw upon psychology news articles. The following link will point you in the direction of the best places to do just that.

Psychology Articles

Free Psychology Pictures

(Photo Credit: viamoi)

Ongoing initiative is to create a repository of psychology images that can be freely used in psychology presentations, projects, lectures, dissertations, books etc.

http://www.flickr.com/photos/psychpics

Psychology Dictionary

(Photo Credit: SarahB)

Access links to the best free online psychology dictionaries and psychology glossaries.

Psychology Dictionary

Psychology Software

(Photo Credit: Han Soete)

A showcase of the very best software tools designed for psychologists, psychology students, researchers and tutors.

Psychology Software

Must Visit Websites For Psychology Students

This section of the guide showcases a handpicked collection of websites that anybody interested in psychology should bookmark and visit on a regular basis.

The website behind the Psychology Student Survival Guide. Regularly updated with new content and resources.

www.all-about-psychology.com

Hosted by psychologist Michael Britt the Psych Files addresses a wide range of psychological issues in a fresh, engaging and highly accessible manner. With well over 100 episodes to choose from this is a great resource for psychology students, psychology teachers and anyone interested in learning more about psychology in everyday life.

www.thepsychfiles.com

I could spend all day here. An amazing website providing free knowledge and inspiration from the world's most inspired thinkers.

More than 700 TED Talks are now available, with more added every week. All of the talks feature closed captions in English, and many feature subtitles in various languages. These videos are released under a Creative Commons license, so they can be freely shared and reposted.

Highly recommend psychology students check out the videos arranged within the theme "How The Mind Works." Some of the fascinating titles in this series include:

- The Riddle of Experience Vs Memory: Daniel Kahneman
- Exploring The Mind of a Killer: Jim Fallon
- On Our Loss of Wisdom: Barry Schwartz
- What Hallucination Reveals About Our Minds: Oliver Sacks
- Mihaly Csikszentmihalyi on Flow
- Martin Seligman on Positive Psychology
- Steven Pinker on Language and Thought
- Sherwin Nuland on Electroshock Therapy

www.ted.com

All in the Mind

This highly informative radio show from the BBC explores the limits and potential of the mind, revealing the latest research and bringing together experts and commentators from the worlds of psychiatry, psychology and mental health.

www.bbc.co.uk/all-in-the-mind

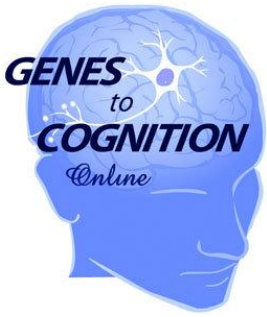
Join thousands of fellow psychology fans on facebook.

http://www.facebook.com/psychologyonline

AllInTheMind

Another very informative radio show also called All in The mind produced by ABC in Australia. The show is described as "A weekly foray into all things mental - a program about the mind, brain and behavior. From dreaming to depression, addiction to artificial intelligence, consciousness to coma, psychoanalysis to psychopathy, free will to forgetting - All in the Mind explores the human condition through the mind's eye."

http://www.abc.net.au/rn/allinthemind/



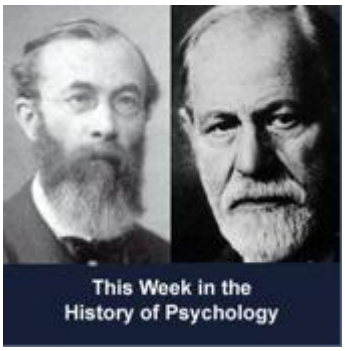
This outstanding first-of-its-kind website is aimed at biology and psychology students, as well as families who are facing mental health problems and interested members of the public.

The website includes fascinating insights from more than 70 neuroscientists from across Europe and the United States, who provide different perspectives on genetic, neural, and cognitive approaches to understanding human behavior. G2C Online is distinguished both by its content and the innovative way in which this interactive content is presented.

As you explore the site your perspective shifts from one point to another, the effect of which is to emphasize the connections between known elements in brain circuitry, neuroanatomy, and brain function and dysfunction; particularly in the context of specific brain illnesses such as autism, schizophrenia, bipolar illness, and depression.

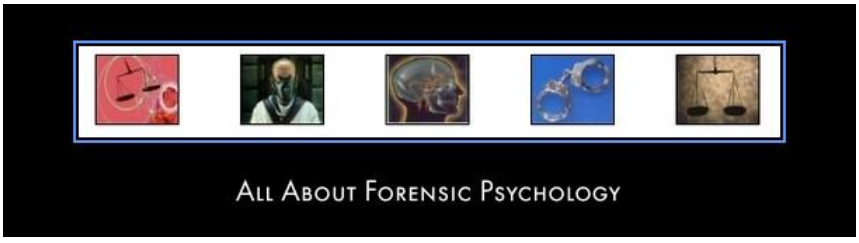
Visitors can access an extensive library of unique items including excellent 3-D brain, animations, demonstrations, videos, and experiments. See following link to access this excellent resource.

http://www.g2conline.org/



This excellent podcast show hosted by Christopher D. Green, Professor of Psychology, York University, Toronto, Canada should be the first port of call for anybody wanting to find out more about the history of psychology.

http://www.yorku.ca/christo/podcasts/



The study and practice of forensic psychology, criminal profiling, serial killers and psychopathy. These are just some of the many topics on offer at this free and comprehensive website.

www.all-about-forensic-psychology.com

Top Tips For Psychology Students

This section of the guide offers quick tips for psychology students organized within specific categories. This is very much work in progress and will hopefully continue to grow as people submit additional tips for inclusion.

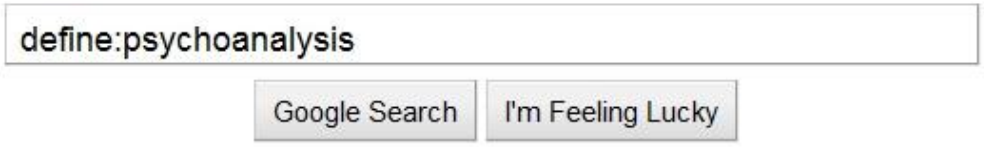
Searching for Information on Google

(Photo Credit: adria.richards)

Whether you're writing a paper/assignment, carrying out a research project or simply interested in finding out more about a particular topic; there's a good chance that you will use the Google search engine to search for information. The following tips are designed to help you get the most out of that search.

1. The **define:** command

Quickly look up the definition of a word or phrase by using the **define:** command e.g.



2. The **site:** command

Use the **site:** command to restrict your search for quality information within authoritative domains only. For example, the domain name **.edu** is primarily associated with U.S universities. Another authoritative domain is **.gov** is restricted to U.S. Governmental departments, programs, and agencies.

3. Use **Google Scholar** to search and find academic papers, abstracts and other academic sources.

   http://scholar.google.com/

4. Use **Google Books** to Search and preview books from libraries and publishers worldwide.

   http://books.google.com/

Standing Out From the Crowd

College places, scholarships, bursaries and job vacancies are becoming more and more competitive to secure and more often than not there is very little to choose between candidates. During my time as a lecturer in the UK there were always more student applications than places available on the degree course. Invariably, therefore, the difference between the successful and the unsuccessful candidates was that successful candidates could offer something that made them stand out from the crowd. The tips listed here are designed to allow you do just that.

1. Present at Conferences

(Photo Credit: Phil Whitehouse)

If you get the chance to present a paper or a poster at a psychology conference make sure you take the opportunity to do so. As an undergraduate I did a presentation on my final year research project at the British Psychological Society Annual conference (student section).

I can honestly say that I have never been so terrified in my life, but everybody was incredibly supportive, and when I presented at subsequent conferences it was much less intimidating now I knew what to expect. However, the biggest benefit to come from presenting as a student was that it helped me secure a bursary for my Masters course. When I was told that I had secured this much needed funding, the bursary panel noted that the fact I had already presented research findings to my peers was a major factor in the decision.

2. **Get Some Work Experience**

(Photo Credit: Yuan2003)

Building a portfolio of work experience is invaluable on so many levels, personal, educational, professional etc. As you progress as a student you may decide to pursue a particular psychological discipline e.g., forensic, educational, clinical etc. At this stage it would be worth seeking out related work experience i.e. a student interested in forensic psychology doing voluntary work in a prison. Listed below are some of the places psychology students may be able to gain work experience.

- Charities
- Care Homes
- Welfare Agencies
- Drug Action Teams
- Youth Centers/Play Groups
- Advice lines
- Probation Service
- Schools

- Victim Support
- Police & Prison Service
- Citizens' Advice Bureau
- Special Hospitals
- Homeless Refuges
- Bail Hostels
- Victim Support
- Women's Refuges

3. Share Your Knowledge

(Photo Credit: Lotte Grønkjær)

There's is no better way of learning more about a topic than engaging with people who share your enthusiasm and there are lots of ways for you do this e.g., psychology facebook pages, student forums etc. This isn't about showing people you know more than them; it's about been helpful, friendly, constructive and insightful. For starters, why not become a guest author on the All About Psychology Website. Getting involved couldn't be easier and you can write about absolutely anything as long as it's related to the wonderful world of psychology. Here are a few ideas to get you thinking.

- Favorite Psychology Class
- Life as a Psychology Student
- Psychology Career Goals
- Your Psychology Research Project

Click Here For Full Details.

Psychology Student Career Information

(Photo Credit C.O.D. Library)

This section of the guide is designed to help students consider their career options by exploring what they can do with their psychology degree.

The first thing that psychology students should bear in mind when considering career options is that the majority of psychology graduates (approximately 80%) **don't** go on to become psychologists. The good news, however, is that the skills that students develop during the course of their psychology degree are highly desirable within the job market.

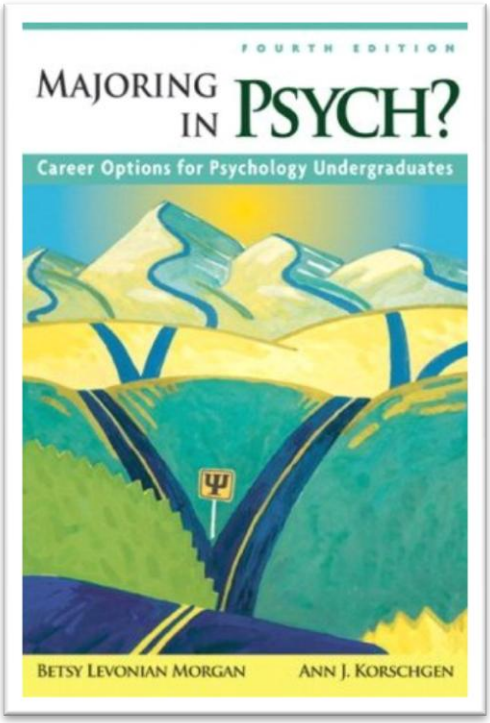
Transferable Competencies

- ✓ Research & Evaluation Skills.
- ✓ Analytical/Critical Thinking Skills.
- ✓ Communication Skills.
- ✓ Presentation & Time Management Skills.
- ✓ Numeracy & Literacy Skills.
- ✓ Information Technology Skills.
- ✓ Interpersonal & communication skills.

Popular Psychology Graduate Career Fields

- Marketing.
- Research & Development.
- Public Relations.
- Social Work
- Government.
- Human Resources.
- Police & Prison Service.
- Teaching.
- Retail & Health Management.

Recommended Reading



"Ann and I wrote the book that we wished we had access to when we were psychology undergraduates. The book is meant to be a quick and easy guide to start students thinking in the "right" directions regarding the development of their career ideals."

Click Here For Full Details

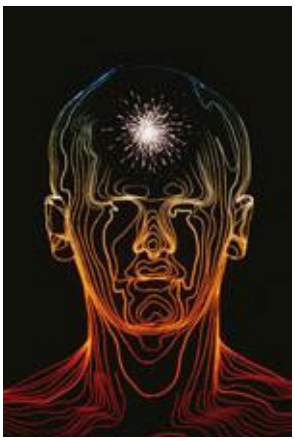
Psychology Jobs

(Photo Credit: Zach Klein)

The following link will connect you with a network of websites which list psychology related job vacancies.

Psychology Jobs

Psychologists



This section of the guide is designed to provide detailed and definitive answers to the most commonly asked questions relating to the practice of psychology. Please note that the information that follows is provided courtesy of the Bureau of Labor Statistics and as such relates to the study and practice of psychology in the United States.

Anybody interested in the study and practice of psychology outside the USA should make their national psychology association or society a first port of call for information, advice and guidance. With this in mind, the following link will take you to the Psychology Association Directory, which is organized alphabetically by country and provides a link to the psychology association website homepage if available.

Psychology Association Directory

What Do Psychologists Do?

Psychologists study mental processes and human behavior by observing, interpreting, and recording how people and other animals relate to one another and the environment. To do this, psychologists often look for patterns that will help them understand and predict behavior using scientific methods, principles, or procedures to test their ideas. Through such research studies, psychologists have learned much that can help increase understanding between individuals, groups, organizations, institutions, nations, and cultures.

Like other social scientists, psychologists formulate theories, or hypotheses, which are possible explanations for what they observe. But unlike other social science disciplines, psychologists often concentrate on individual behavior and, specifically, in the beliefs and feelings that influence a person's actions.

Research methods vary with the topic which they study, but by and large, the chief techniques used are observation, assessment, and experimentation. Psychologists sometimes gather information and evaluate behavior through controlled laboratory experiments, hypnosis, biofeedback, psychoanalysis, or psychotherapy, or by administering personality, performance, aptitude, or intelligence tests. Other methods include interviews, questionnaires, clinical studies, surveys, and observation—looking for cause-and-effect relationships between events and for broad patterns of behavior.

Research in psychology seeks to understand and explain thought, emotion, feelings, or behavior. The research findings of psychologists have greatly increased our understanding of why people and animals behave as they do. For example, psychologists have discovered how personality develops and how to promote healthy development. They have gained knowledge of how to diagnose and treat alcoholism and substance abuse, how to help people change bad habits and conduct, and how to help students learn. They understand the conditions that can make workers more productive. Insights provided by psychologists can help people function better as individuals, friends, family members, and workers.

Psychologists may perform a variety of duties in a vast number of industries. For example, those working in health service fields may provide mental healthcare in hospitals, clinics, schools, or private settings. Psychologists employed in applied settings, such as business, industry, government, or nonprofit organizations, may provide training, conduct research, design organizational systems, and act as advocates for psychology.

Psychologists apply their knowledge to a wide range of endeavors, including health and human services, management, education, law, and sports. They usually specialize in one of many different areas.

Types of Psychologist

Clinical Psychologists - who constitute the largest specialty - are concerned with the assessment, diagnosis, treatment, and prevention of mental disorders. While some clinical psychologists specialize in treating severe psychological disorders, such as schizophrenia and depression, many others may help people deal with personal issues, such as divorce or the death of a loved one. Often times, clinical psychologists provide an opportunity to talk and think about things that are confusing or worrying, offering different ways of interpreting and understanding problems and situations. They are trained to use a variety of approaches aimed at helping individuals, and the strategies used are generally determined by the specialty they work in.

Clinical psychologists often interview patients and give diagnostic tests in their own private offices. They may provide individual, family, or group psychotherapy and may design and implement behavior modification programs. Some clinical psychologists work in hospitals where they collaborate with physicians and other specialists to develop and implement treatment and intervention programs that patients can understand and comply with. Other clinical psychologists work in universities and medical schools, where they train graduate students in the delivery of mental health and behavioral medicine services. A few work in physical rehabilitation settings, treating patients with spinal cord injuries, chronic pain or illness, stroke, arthritis, or neurological conditions. Others may work in community mental health centers, crisis counseling services, or drug rehabilitation centers, offering evaluation, therapy, remediation, and consultation.

Areas of specialization within clinical psychology include health psychology, neuropsychology, geropsychology, and child psychology. Health psychologists study how biological, psychological, and social factors affect health and illness. They promote healthy living and disease prevention through counseling, and they focus on how patients adjust to illnesses and treatments and view their quality of life. Neuropsychologists study the relation between the brain and behavior. They often work in stroke and head injury programs.

Geropsychologists deal with the special problems faced by the elderly. Work may include helping older persons cope with stresses that are common in late life, such as loss of loved ones, relocation, medical conditions, and increased care-giving demands. Clinical psychologists may further specialize in these fields by focusing their work in a number of niche areas including mental health, learning disabilities, emotional disturbances, or substance abuse. The emergence and growth of these, and other, specialties reflects the increasing participation of psychologists in direct services to special patient populations.

Often, clinical psychologists consult with other medical personnel regarding the best treatment for patients, especially treatment that includes medication. Clinical psychologists generally are not permitted to prescribe medication to treat patients; only psychiatrists and other medical doctors may prescribe most medications. (See the statement on physicians and surgeons elsewhere in the Handbook.) However, two States - Louisiana and New Mexico - currently allow appropriately trained clinical psychologists to prescribe medication with some limitations.

Counseling Psychologists advise people on how to deal with problems of everyday living, including problems in the home, place of work, or community, to help improve their quality of life. They foster well-being by promoting good mental health and preventing mental, physical, and social disorders. They work in settings such as university or crisis counseling centers, hospitals, rehabilitation centers, and individual or group practices.

School psychologists work with students in early childhood and elementary and secondary schools. They collaborate with teachers, parents, and school personnel to create safe, healthy, and supportive learning environments for all students. School psychologists address students' learning and behavioral problems, suggest improvements to classroom management strategies or parenting techniques, and evaluate students with disabilities and gifted and talented students to help determine the best way to educate them. They improve teaching, learning, and socialization strategies based on their understanding of the psychology of learning environments.

They also may evaluate the effectiveness of academic programs, prevention programs, behavior management procedures, and other services provided in the school setting.

Industrial-Organizational Psychologists apply psychological principles and research methods to the workplace in the interest of improving the quality of worklife. They also are involved in research on management and marketing problems. They screen, train, and counsel applicants for jobs, as well as perform organizational development and analysis. An industrial psychologist might work with management to reorganize the work setting in order to enhance productivity. Industrial psychologists frequently act as consultants, brought in by management to solve a particular problem.

Developmental Psychologists study the physiological, cognitive, and social development that takes place throughout life. Some specialize in behavior during infancy, childhood, and adolescence, or changes that occur during maturity or old age. Developmental psychologists also may study developmental disabilities and their effects. Increasingly, research is developing ways to help elderly people remain independent as long as possible.

Social Psychologists examine people's interactions with others and with the social environment. They work in organizational consultation, marketing research, systems design, or other applied psychology fields. Many social psychologists specialize in a niche area, such as group behavior, leadership, attitudes, and perception.

Experimental or Research Psychologists work in university and private research centers and in business, nonprofit, and governmental organizations. They study the behavior of both human beings and animals, such as rats, monkeys, and pigeons. Prominent areas of study in experimental research include motivation, thought, attention, learning and memory, sensory and perceptual processes, effects of substance abuse, and genetic and neurological factors affecting behavior.

Forensic Psychologists use psychological principles in the legal and criminal justice system to help judges, attorneys, and other legal professionals understand the psychological findings of a particular case. They are usually designated as an expert witness and typically specialize in one of three areas: family court, civil court, and

criminal court. Forensic psychologists who work in family court may offer psychotherapy services, perform child custody evaluations, or investigate reports of child abuse. Those working in civil courts may assess competency, provide second opinions, and provide psychotherapy to crime victims. Criminal court forensic psychologists often conduct evaluations of mental competency, work with child witnesses, and provide assessment of juvenile or adult offenders.

Psychologist Education & Training

A master's or doctoral degree, and a license, are required for most psychologists.

A doctoral degree usually is required for independent practice as a psychologist. Psychologists with a Ph.D. or Doctor of Psychology (Psy.D.) qualify for a wide range of teaching, research, clinical, and counseling positions in universities, healthcare services, elementary and secondary schools, private industry, and government. Psychologists with a doctoral degree often work in clinical positions or in private practices, but they also sometimes teach, conduct research, or carry out administrative responsibilities.

A doctoral degree generally requires about 5 years of full-time graduate study, culminating in a dissertation based on original research. Courses in quantitative experimental methods and research design, which include the use of computer-based analysis, are an integral part of graduate study and are necessary to complete the dissertation. The Psy.D. degree may be based on practical work and examinations rather than a dissertation. In clinical, counseling, and school psychology, the requirements for the doctoral degree usually include an additional year of post-doctoral supervised experience.

A specialist degree or its equivalent is required in most States for an individual to work as a school psychologist, although some States credential school psychologists with master's degrees. A specialist (Ed.S.) degree in school psychology requires a minimum of 2 years of full-time graduate study (at least 60 graduate semester hours) and a 1-year full-time internship during the third year. Because their professional practice

addresses educational and mental health components of students' development, school psychologists' training includes coursework in both education and psychology.

People with a master's degree in psychology may work as industrial-organizational psychologists. They also may work as psychological assistants conducting research under the direct supervision of doctoral-level psychologists. A master's degree in psychology requires at least 2 years of full-time graduate study. Requirements usually include practical experience in an applied setting and a master's thesis based on an original research project.

Competition for admission to graduate psychology programs is keen. Some universities require applicants to have an undergraduate major in psychology. Others prefer only coursework in basic psychology with additional courses in the biological, physical, and social sciences, and in statistics and mathematics.

A bachelor's degree in psychology qualifies a person to assist psychologists and other professionals in community mental health centers, vocational rehabilitation offices, and correctional programs. Bachelor's degree holders may also work as administrative assistants for psychologists. Many, however, find employment in other areas, such as sales, service, or business management.

In the Federal Government, candidates must have a bachelor's degree with a minimum of 24 semester hours in psychology, or a combination of education and experience to qualify for entry-level positions. However, competition for these jobs is keen because this is one of the few ways in which one can work as a psychologist without an advanced degree.

The American Psychological Association (APA) presently accredits doctoral training programs in clinical, counseling, and school psychology, as well as institutions that provide internships for doctoral students in school, clinical, and counseling psychology. The National Association of School Psychologists, with the assistance of the National Council for Accreditation of Teacher Education, helps to approve advanced degree programs in school psychology.

Clinical psychologists in Louisiana and New Mexico who prescribe medication are required to complete a post-doctoral master's degree in clinical psychopharmacology and pass a National exam approved by the State Board of Examiners of psychologists.

Licensure

Psychologists in a solo or group practice or those who offer any type of patient care—including clinical, counseling, and school psychologists—must meet certification or licensing requirements in all States and the District of Columbia. Licensing laws vary by State and by type of position and require licensed or certified psychologists to limit their practice to areas in which they have developed professional competence through training and experience. Clinical and counseling psychologists usually need a doctorate in psychology, an approved internship, and 1 to 2 years of professional experience. In addition, all States require that applicants pass an examination. Most State licensing boards administer a standardized test, and many supplement that with additional oral or essay questions. Some States require continuing education for renewal of the license.

The National Association of School Psychologists (NASP) awards the Nationally Certified School Psychologist (NCSP) designation, which recognizes professional competency in school psychology at a national, rather than State, level. Currently, 31 States recognize the NCSP and allow those with the certification to transfer credentials from one State to another without taking a new certification exam. In States that recognize the NCSP, the requirements for certification or licensure and those for the NCSP often are the same or similar. Requirements for the NCSP include the completion of 60 graduate semester hours in school psychology; a 1,200-hour internship, 600 hours of which must be completed in a school setting; and a passing score on the National School Psychology Examination.

Other Qualifications: Aspiring psychologists who are interested in direct patient care must be emotionally stable, mature, and able to deal effectively with people. Sensitivity, compassion, good communication skills, and the ability to lead and inspire others are particularly important qualities for people wishing to do clinical work and

counseling. Research psychologists should be capable of detailed work both independently and as part of a team. Patience and perseverance are vital qualities, because achieving results in the psychological treatment of patients or in research may take a long time.

Certification and Advancement

The American Board of Professional Psychology (ABPP) recognizes professional achievement by awarding specialty certification in 13 different areas, such as psychoanalysis, rehabilitation, forensic, group, school, clinical health, and couple and family. To obtain board certification in a specialty, candidates must meet general criteria which consist of having a doctorate in psychology, as well as State licensure. Each candidate must then meet additional criteria of the specialty field, which is usually a combination of postdoctoral training in their specialty, several years of experience, and professional endorsements, as determined by the ABPP. Applicants are then required to pass the specialty board examination.

Psychologists can improve their advancement opportunities by earning an advanced degree and by participation in continuing education. Many psychologists opt to start their own private practice after gaining experience working in the field.

Psychologist Employment & Job Outlook

Psychologists held about 170,200 jobs in 2008. Educational institutions employed about 29 percent of psychologists in positions other than teaching, such as counseling, testing, research, and administration. About 21 percent were employed in healthcare, primarily in offices of mental health practitioners, hospitals, physicians' offices, and outpatient mental health and substance abuse centers. Government agencies at the State and local levels employed psychologists in correctional facilities, law enforcement, and other settings.

After several years of experience, some psychologists—usually those with doctoral degrees—enter private practice or set up private research or consulting firms. About

34 percent of psychologists were self-employed in 2008—mainly as private practitioners.

In addition to the previously mentioned jobs, many psychologists held faculty positions at colleges and universities and as high school psychology teachers.

Employment of psychologists is expected to grow as fast as average i.e. Increase 7 to 13 percent. Job prospects should be the best for people who have a doctoral degree from a leading university in an applied specialty, such as counseling or health, and those with a specialist or doctoral degree in school psychology. Master's degree holders in fields other than industrial-organizational psychology will face keen competition. Opportunities will be limited for bachelor's degree holders.

Employment Change

Employment of psychologists is expected to grow 12 percent from 2008 to 2018, about as fast as the average for all occupations. Employment will grow because of increased demand for psychological services in schools, hospitals, social service agencies, mental health centers, substance abuse treatment clinics, consulting firms, and private companies.

Demand for school psychologists will be driven by a growing awareness of how students' mental health and behavioral problems, such as bullying, affect learning. School psychologists will also be needed for general student counseling on a variety of other issues, including working with students with disabilities or with special needs, tackling drug abuse, and consulting and managing personal crisis.

Spurring demand for clinical psychologists will continue to be the rising healthcare costs associated with unhealthy lifestyles, such as smoking, alcoholism, and obesity, which have made prevention and treatment more critical. An increase in the number of employee assistance programs, which help workers deal with personal problems, also should lead to employment growth for clinical and counseling specialties. More clinical and counseling psychologists will be needed to help people deal with depression and other mental disorders, marriage and family problems, job stress, and

addiction. The growing number of elderly will increase the demand for psychologists trained in geropsychology to help people deal with the mental and physical changes that occur as individuals grow older. There also will be increased need for psychologists to work with returning veterans.

Industrial-organizational psychologists also will be in demand to help to boost worker productivity and retention rates in a wide range of businesses. Industrial-organizational psychologists will help companies deal with issues such as workplace diversity and antidiscrimination policies. Companies also will use psychologists' expertise in survey design, analysis, and research to develop tools for marketing evaluation and statistical analysis.

Job Prospects

Job prospects should be best for people who have a doctoral degree from a leading university in an applied specialty, such as counseling or health, and those with a specialist or doctoral degree in school psychology. Psychologists with extensive training in quantitative research methods and computer science may have a competitive edge over applicants without such background.

Master's degree holders in fields other than industrial-organizational psychology will face keen competition for jobs because of the limited number of positions that require only a master's degree. Master's degree holders may find jobs as psychological assistants or counselors, providing mental health services under the direct supervision of a licensed psychologist. Still, others may find jobs involving research and data collection and analysis in universities, government, or private companies.

Opportunities directly related to psychology will be limited for bachelor's degree holders. Some may find jobs as assistants in rehabilitation centers or in other jobs involving data collection and analysis. Those who meet State certification requirements may become high school psychology teachers.

Psychologist Salary

Median annual wages of wage and salary clinical, counseling, and school psychologists were $64,140 in May 2008. The middle 50 percent earned between $48,700 and $82,800. The lowest 10 percent earned less than $37,900, and the highest 10 percent earned more than $106,840.

Median annual wages in the industries employing the largest numbers of clinical, counseling, and school psychologists were:

- Offices of other health practitioners $68,400
- Elementary and secondary schools $65,710
- State government $63,710
- Outpatient care centers $59,130
- Individual and family services $57,440

Median annual wages of wage and salary industrial-organizational psychologists were $77,010 in May 2008. The middle 50 percent earned between $54,100 and $115,720. The lowest 10 percent earned less than $38,690, and the highest 10 percent earned more than $149,120.

And Finally

I intend to add new sections to the Psychology Student Survival Guide on a regular basis. For instance, I'm currently putting together a "Where Can I Study Psychology" section which will take the form of links to country specific degree directories. At present work is underway on the following directories.

USA Psychology Degree Directory

USA Online Psychology Degree Directory

UK Psychology Degree Directory

Other sections on the to-do list include:

- ✓ A Directory of Internships and Scholarship Opportunities.
- ✓ Advice for Students Wanting To Study Psychology Abroad.
- ✓ Psychology Conference and Workshop Listings.
- ✓ Advice on Getting Published in Peer-Reviewed Journals.
- ✓ Exclusive Psychology Expert Interviews.

Feedback

I also want the guide to continually improve based on the feedback from users. So please let me know what think and what else you would like to see included. Also please get in touch to let me know about any quality psychology links and resources out there.

Leave Feedback

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