Development of online learning resources at UWA

Belinda Shilkin & Gina Sjepcevich

The Research Journey

"*If you are juggling research and teaching / work and family commitments, out of office hours times can make all the difference*".

"*...we need lots of repeats of basic stuff. There is so much to know when we first start, most of it goes in one ear and out the other.*"

"*Students should get a handbook that has all the notes from the various training programs in it. Then students can refer to these as necessary.*"

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Achieving International Excellence

The Research
Journey

Research support
and training
Face-to-face and online

The research journey

Research is an exciting journey of discovery, where you'll be working at the ever-shifting boundary between the known and the unknown.

Like any pioneering work, research has components that may not be immediately obvious and will present many challenges. Find out about the face-to-face and online support and training we offer to assist you in meeting the challenges.

From research topic to research question →

Managing your project →

Writing for your research →

From research student to professional →

Data collection and analysis →

Communicating your research

Answering Clinical Questions

http://www.meddent.uwa.edu.au/teaching/acq

- **One** Faculty approach to Evidence Based Medicine (EBM)

- **One** interpretation of EBM terminology

- **Agreement** on EBM resources to be promoted

- **Scaffolding** EBM through the curriculum

Answering clinical questions

These modules are a guide to the UWA approach to answering clinical questions, an evidence based practice approach.

Modules

1	Formulate a clinical question	**2**	Find the best evidence
3	Appraise the evidence	**4**	Apply the evidence

Reasons for using Evidence Based Practice (EBP)

1. Health care knowledge grows so rapidly that you will be out of date by the time you 'memorise the textbook'.
2. Health care knowledge is now too vast to keep up to date with all the key publications, even in your field.
3. Today's information environment allows you to get information 'just in time' rather than 'just in case'.
4. EBP allows you to individualise the information for your patient's situation.
5. EBP teaches you to integrate the best available information with clinical expertise, patient values, and your health care environment.
6. EBP helps you to challenge dogma and avoids uncritical acceptance of 'usual practice'.
7. EBP can be simple, quick, and will give you skills for lifelong learning and up to date practice.

Barriers to using Evidence Based Practice (EBP) to answer clinical questions

BARRIERS	SOLUTIONS
Uncritical acceptance of 'usual practice'	Learn to question dogma
Failure to recognise and ask clinical questions	Practice recognising and asking clinical questions
Perceived lack of time	Understanding the resources available to find answers quickly and effectively

Teaching & design principles

Why learning objects?

Why online?

"...a learning object is defined as a stand-alone learning resource that contains learning content, reference material, templates and checklists and activities/interactions interlinked with a constant navigational scheme."

Software

Graduate Research School

Writing for your research

Writing is a powerful tool for clear thinking. It is also the means by which research is communicated.

For these reasons, effective and productive research is accompanied by the development of good writing habits and good writing habits develop writing ability.

There are resources at UWA to help you to develop good writing habits and to improve your writing ability. Support and training at this stage include:

Teach Yourself Online

- Tutorial on writing a literature review
- Tutorial on writing a research proposal
- Tutorial on evaluating information
- Tutorial on writing your thesis
- Publishing a scientific paper, 2007 (Prof. Hans Lambers, School of Plant Biology). This presentation is provided online through Lectopia.
- Putting your thesis together (Dr Sato Juniper, Associate Director, Graduate Research and Scholarships).

Putting your thesis together [PDF, 791.0 kb]
Updated 27 Jan 2009

- Writing your thesis (Dr Sato Juniper, Associate Director, Graduate Research and Scholarships).

Writing a thesis [PPT, 622.5 kb]
Updated 17 Jul 2008

Face to Face Workshops

- Language skills
- Managing and reviewing the literature
- Conceptualising your research

FURTHER INFORMATION

my RESEARCHSPACE ONLINE COMMUNITY ●

Student Services

Writing your research proposal

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Introduction

? Reflect

You are usually asked to start your research with the writing of a research proposal because it helps prepare you for the research process. Give some thought to what the benefits may be.

🔍 Explore

A research proposal is a document that persuades the reader that you have a workable plan to achieve a research goal.

Your research proposal is a tool for managing risk associated with research and not a blueprint to be strictly followed for a guaranteed successful outcome.

In a sense, it is your best guess of the way forward.

The research proposal is an important milestone required for progress in a Masters by research or a PhD. In a PhD, it is an essential milestone for the Confirmation of Candidature.

The act of preparing a well thought out research proposal makes you better prepared to deal with the uncertain and unpredictable elements of research.

👥 Connect

Peer-to-peer collaboration can provide excellent learning opportunities. myResearchSpace is an online community for Research Students provided by the UWA Graduate Research School. Researchers at UWA can sign-up and receive storage space, an email account and access to a blog, forum and news. Use myResearchSpace to communicate with other researchers as you complete this module.

📖 Resources

All resources will open in a new window.

Listen:

Professor Robyn Owens, Pro Vice-Chancellor, talks about the research proposal.

Watch:

The benefits of a research proposal

Read:

Assessment criteria for a Masters by Research.

Assessment criteria for a PhD.

Writing your research proposal

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Cornerstones of your research proposal

? Reflect

What are the key elements of a research proposal?

🔍 Explore

A research proposal brings together a research problem and a research design which has the potential to answer the problem, refines an existing answer, or moves the field closer to finding an answer to the problem.

The proposal must also show that the resources required by the research design are available.

A good research proposal looks achievable with the resources provided, will meet the requirements for its degree and will add value to the field of research.

Click on each of the circles below to learn more about the cornerstones of a research proposal.

The
Research Problem

The
Research
Design

Contribution
to
knowledge

The research problem is a problem in your research field for which no answer can yet be found in the scholarly literature and which it is possible to answer using an appropriate scholarly methodology.

📖 Resources

All resources will open in a new window.

Read:

Guidelines and coversheet for a Masters and PhD research proposal at UWA (PDF)

Some sample research proposals

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FACULTY OF MEDICINE, DENTISTRY AND HEALTH SCIENCES

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Teaching and Learning
The Education Centre
MBBS community placements
Teaching on the Run

StudentNet
StaffNet
Contact us

Faculty of Medicine, Dentistry and Health Sciences

Answering clinical questions

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1   Formulate a clinical question

2   Find the best evidence

3   Appraise the evidence

4   Apply the evidence

FURTHER INFORMATION

◉ Glossary
◉ A-Z of resources

Reasons for using Evidence Based Practice (EBP)

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Barriers to using Evidence Based Practice (EBP) to answer clinical questions

Introduction

Once you have developed a focussed clinical question, you need to be able to quickly and effectively search for the best evidence within the most suitable resource.

Some strategies are:

1. Converting your clinical question into a search strategy.
2. Understanding and using the Hierarchy of Evidence to find information.
3. Effective and efficient searching.
4. Troubleshooting, limiting and expanding your search.

Your aim is to retrieve highest level evidence which is relevant to your question as efficiently as possible. Many of the databases enable you to perform very sophisticated searches using specialised limits and filters. To find the best answers in the shortest time you will often need to make use of the full functionality that the databases offer.

Resources

Medicine

Dentistry

Podiatric Medicine

Nursing

Physiotherapy

A-Z

Glossary

![ACQ - Answering Clinical Questions logo] Find the best evidence

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Understanding and using the Hierarchy of Evidence

The pyramid represents the hierarchy of information resources that can be used to answer clinical questions. Understanding this hierarchy will help lead you to the best resources where you can find evidence for your question.

As you move up the pyramid, the amount of literature decreases, but its clinical relevance increases. If you are unable to find summarised, critically appraised information via the resources at the top of the pyramid, you will need to work your way down through the levels in the hierarchy. Information retrieved from lower down the pyramid will require more of your own appraisal.

Click on each level in the pyramid or UWA resources to access more information.

Text alternative

Single studies
Single studies have their own 'Evidence Pyramid' within the bottom step of the Hierarchy of Evidence.

Close **X**

Single studies are primary research including:
- Randomised Control Trials (RCTs)
- Cohort studies
- Case-controlled studies
- Case series/case reports
- Qualitative studies

Problem focussed/
multiple questions

Decision
support
systems

Evidence
based summaries

Evidence based
guidelines

Systematic reviews

Synopses of single studies

Simple,
single
questions

Single studies

Resources

Medicine

Dentistry

Podiatric Medicine

Nursing

Physiotherapy

A-Z

Glossary

In Conclusion . . .

- Collaborative development
- Left the expert work to the experts
- Committed to continuous improvement