

Bob Price







Learning Matters A Sage Publishing Company 1 Oliver's Yard 55 City Road London EC1Y 1SP

Sage Publications Inc. 2455 Teller Road Thousand Oaks, California 91320

Sage Publications India Pvt Ltd B 1/I 1 Mohan Cooperative Industrial Area Mathura Road New Delhi 110 044

Sage Publications Asia-Pacific Pte Ltd 3 Church Street #10-04 Samsung Hub Singapore 049483

Editor: Martha Cunneen

Development editor: Sarah Turpie Senior project editor: Chris Marke

Project management: Westchester Publishing

Services UK

Marketing manager: Ruslana Khatagova

Cover design: Sheila Tong

Typeset by: C&M Digitals (P) Ltd, Chennai, India

Printed in the UK

© Bob Price 2024

Apart from any fair dealing for the purposes of research or private study, or criticism or review, as permitted under the Copyright, Designs and Patents Act, 1988, this publication may be reproduced, stored or transmitted in any form, or by any means, only with the prior permission in writing of the publishers, or in the case of reprographic reproduction, in accordance with the terms of licences issued by the Copyright Licensing Agency. Enquiries concerning reproduction outside those terms should be sent to the publishers.

Crown Copyright material is published with the permission of the controller of HMSO.

Library of Congress Control Number: 2023944521

British Library Cataloguing in Publication data

A catalogue record for this book is available from the **British Library**

ISBN 978-1-5296-6660-1 ISBN 978-1-5296-6659-5 (pbk)

At Sage we take sustainability seriously. Most of our products are printed in the UK using responsibly sourced papers and boards. When we print overseas we ensure sustainable papers are used as measured by the Paper Chain Project grading system. We undertake an annual audit to monitor our sustainability.







Contents

About the author	vi
Acknowledgements	vii
Foreword	viii
Introduction	1
Part 1 Understanding thinking, reflecting and writing	7
1 Critical thinking	9
2 Reflecting	27
3 Scholarly writing	45
Part 2 Critical thinking and reflecting in nursing contexts	65
4 Making sense of lectures	67
5 Making sense of interactive enquiries	79
6 Making clinical placements successful	91
7 Making use of electronic media	103
Part 3 Expressing critical thought and reflection	119
8 Critiquing evidence-based literature	121
9 Writing the analytical essay	135
10 Writing the reflective essay	147
11 Writing the clinical case study	159
12 Building and using your portfolio of learning	175
Glossary	188
References	192
Index	203









Transforming Nursing Practice is a series tailor made for pre-registration student nurses. Each book in the series is:



Affordable



Full of active learning features



Mapped to the NMC Standards of proficiency for registered nurses



Focused on applying theory to practice

Each book addresses a core topic and they have been carefully developed to be simple to use, quick to read and written in clear language.

An invaluable series of books that explicitly relates to the NMC standards. Each book covers a different topic that students need to explore in order to develop into a qualified nurse... I would recommend this series to all Pre-Registered nursing students whatever their field or year of study.

Many titles in the series are on our recommended reading list and for good reason - the content is up to date and easy to read. These are the books that actually get used beyond training and into your nursing career.

LINDA ROBSON,

Senior Lecturer at Edge Hill University

EMMA LYDON, Adult Student Nursing

ABOUT THE SERIES EDITORS

DR MOOI STANDING is an Independent Nursing Consultant (UK and International) and is responsible for the core knowledge, adult nursing and personal and professional learning skills titles. She is an experienced NMC Quality Assurance Reviewer of educational programmes and a Professional Regulator Panellist on the NMC Practice Committee. Mooi is also Board member of Special Olympics Malaysia, enabling people with intellectual disabilities to participate in sports and athletics nationally and internationally.

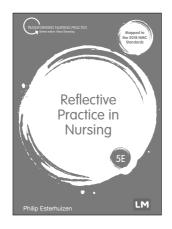
DR SANDRA WALKER is a Clinical Academic in Mental Health working between Southern Health Trust and the University of Southampton and responsible for the mental health nursing titles. She is a Qualified Mental Health Nurse with a wide range of clinical experience spanning more than 25 years.

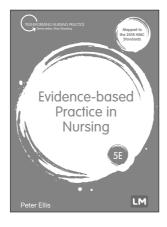


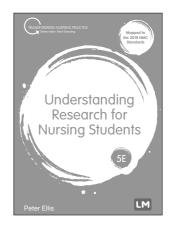


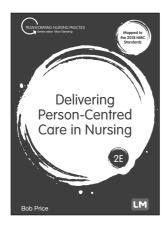


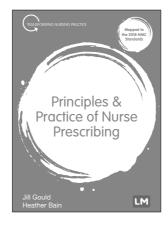
BESTSELLING TEXTBOOKS

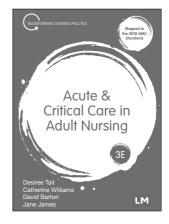


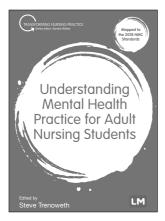


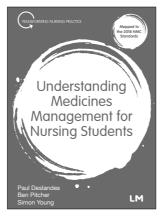


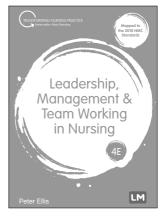












You can find a full list of textbooks in the *Transforming Nursing Practice* series at https://uk.sagepub.com/TNP-series



About the author

Bob Price is a healthcare education and training consultant. Formerly, he was Director, Postgraduate Awards in Advancing Healthcare Practice at the Open University. A passionate educator, he has assisted students at every level, from pre-registration programmes of study up to and including PhD. Bob's doctoral thesis was on the negotiation of learning and ways to assist students with their studies. He is an editorial adviser to a range of healthcare journals, advising editors on teaching texts and student learning needs.







Acknowledgements

This book would not have been possible, without the case study nurse contributions of Stewart, Fatima, Raymet, Gina and Sue, who very generously agreed to explore critical thinking and reflection with me through their own studies. The book certainly would not have made it to the printed and e-learning pages without the support and very constructive feedback of critical readers, Series Editor Dr Mooi Standing, Martha Cunneen (Commissioning Editor) and the rest of the editorial team at Sage.







Foreword

Critical Thinking and Writing in Nursing facilitates the development of essential personal and professional learning skills by carefully guiding readers in how to process information and then articulate and apply what they have learned. Readers' personal development is facilitated in acquiring, understanding and demonstrating critical thinking, reflecting and scholarly writing skills. This goes hand in hand with facilitating their professional development in the wide variety of learning situations that they experience, and in nurturing and applying critical thinking skills in their formal academic and practical assessments. Readers are encouraged to engage with lots of interesting and challenging activities that combine and progressively stretch their personal and professional learning skills in reflecting and thinking critically. Case studies chart the progress of four pre-registration nursing students to illustrate different perspectives and learning styles in acquiring and applying critical thinking skills in providing a high standard of nursing care for patients. In this way the book succeeds in preparing nursing students for the challenges faced by registered nurses including demonstrating critical thinking and reflection to satisfy revalidation requirements.

The author has updated and revised the sixth edition of this highly regarded book to further reduce the theory-practice gap by showing how skilled nursing practice incorporates critical thinking within person-centred care. In doing so Bob Price succeeds in making a complex topic more accessible, understandable and applicable for nurses to evaluate and enhance their care of patients. I can therefore wholeheartedly recommend this excellent book to all nursing students, registered nurses, practice supervisors/assessors and nurse educators.

Dr Mooi Standing
Series Editor







Introduction

The ability to think critically, to reflect upon experience and then to write about such matters in a clear fashion is central to your success, both while studying a programme of nursing studies and later when demonstrating your readiness to revalidate as a registered nurse (NMC, 2019). *The Code* (NMC, 2018a) requires nurses to attend safely, sensitively, effectively, imaginatively and efficiently to patient care, and this is underpinned by both critical thinking and reflection. Together, critical thinking and reflecting shape what it means to learn at university. You will be completing your studies at a pivotal time, one where new technology is shaping how subjects are taught and developing what you are expected to master through personal enquiry. While historically we have thought of study as attending lectures and using the library, you will discover that university mixes and matches your learning opportunities in new ways that will help you to become a confident lifelong learner. This book is designed to assist you with this process.

The book has a further purpose, however – one that is very personal. This relates to helping you to think in ways that help you to endure within nursing. Healthcare practice is full of challenges. While we work within a code of practice and with clinical guidelines and protocols, there are still different ways to care for patients. There are often difficulties in negotiating the right care with patients and their families. There are equally challenges associated with allocating scant resources and prioritising care when demands compete for your time. While much is taught to you, and much is recommended, you will still have to deliberate on what is practicable, ethical and professional. What is acceptable to the patient (informed consent), what is recommended as ideal (professional philosophy) and what is practicable (health service economics) are not always the same. Addressing the many competing demands about what you should do is stressful. For that reason, this book is also about judging the practical utility of information, theories and arguments. Success sometimes depends upon the skill you have in navigating the practical as well as the desirable.

Who is this book for?

This book has been written for two audiences: students completing nursing courses (basic and post-basic levels) and registered nurses who are charged with demonstrating their continued learning and enquiry as part of the revalidation process (NMC, 2019). While the







requirements of critical thinking and reflection may vary (e.g. associated with the level of course studied), the processes remain much the same. The nurse must process that which is discovered, interpreting and sorting it before care decisions can be made.

Because the book starts with the basics, it is designed to reassure and support those of you who may not have studied for some time. I begin with the assumption that critical thinking, reflecting and writing are three of the craft skills of nursing.

Much of what is best in nursing is defined by the way in which we deliver care as much as by what is provided. For this reason, reading this book will start you on a journey where you discover how best to use your experience in the service of others. This is a process that draws heavily upon making sense of practice, exploring what you believe is best within nursing care, and planning future development that helps you to express your thinking more effectively.

Critical thinking and reflecting

One of the earliest discoveries made by student nurses is how often the word 'critical' appears in their work. In the clinical context, the word carries connotations of risk and the need for urgent intervention (e.g. 'a patient is critically ill') (Kayambankzanya et al., 2022). Used in this sense, the nurse quickly realises the need for precision and judgement, the requirement to do the right thing, in the right way and at the right time. In the academic context, 'critical' takes on several different meanings (Merisier et al., 2018). You are asked to 'critically discuss', 'critically evaluate' and 'critically explore' a subject, and it slowly becomes apparent that to be critical involves different things, depending on the teaching or assessment involved. For example, to be critical in this context might mean to discriminate between what is right and wrong, defensible and indefensible. Asking the right questions of information or a clinical situation is important. If you are preparing a reflective piece of writing, then 'critical' often involves being introspective, examining afresh your beliefs, values and motives.

In this book, I use the term 'critical thinking' in a particular way. It describes the process by which we develop powers of analysis and investigation, as well as enhancing our ability to discriminate what is relevant and to discern what might prove most helpful. Critical thinking may have to work in situations where there is no absolute truth, no perfect answers, only better ones. Much as we might yearn for certainty, there are times in healthcare when none can be promised.

Critical thinking involves judgement, and nurses are frequently assessed on their decision-making skills (Clemett and Raleigh, 2021). A competent nurse is one who selects the relevant information to plan a course of action and then judges what is best to do in a given circumstance (Casey et al., 2017). We are best placed to improve care where we have the capacity to reason what is not yet understood and what will enable us to be more imaginative, sensitive, respectful, and efficient and effective in what we do.







While 'critical' is sometimes encountered in a more destructive form within practice (e.g. where practitioners belittle others' shortfalls), this is not the sense in which we will use it here. Indeed, I suggest that the individual who criticises without consideration of what is learned through the experience is demonstrating neither scholarship nor professionalism.

It is likely that you have already engaged in reflection as part of previous studies. For example, at school, you perhaps judged which subjects to take to examination based on your past comfort with them in class. However, in nursing, reflection has a very important and specific role. It is strongly associated with the development of empathy (i.e. the understanding of and respect for the circumstances of others) (Jack and Levatt-Jones, 2022). Nurses need to be emotionally intelligent, anticipating how illness, treatment and care might seem to patients and how different courses of action might seem to professional colleagues. Without adequate empathy, there is a significant risk that patients may be neglected. Because nurses are asked to use their experience and their insights as part of nursing care, reflection takes on a special meaning. While at least some of your teaching in college starts with concepts or theories that describe the world of healthcare, much of what you learn through practice starts from episodes of care that are much more ambiguous. We must make sense of what is going on. Evidence alone will not secure the healthcare improvements that we strive for. Not surprisingly, then, both critical thinking and reflection are important. Critical thinking engages our reasoning as we ponder theories, evidence, arguments and debates, while reflection does the same as we contemplate experience.

How this book is set out

This book is set out in three parts. You will dip in again later. Part 1 consists of three chapters that introduce you in an accessible way to the key concepts which feature in this book: critical thinking, reflecting and scholarly writing. Securing a basic idea about what these are all about will help you to make a great deal more sense of what is asked of you upon a course. Within Part 1, I introduce you to different levels of critical thinking and reflection, something that you will need to understand in order to understand tutor feedback and pass module assessments.

Part 2 concerns the use of reasoning and reflection within different contexts. It will help you to understand what is involved in getting the most from a variety of learning opportunities, including lectures, demonstrations, seminars, workshops and clinical placements. Much of what I write about here relating to learning in university contexts applies equally well to the registered nurse preparing for revalidation. Conferences and study days, for example, are often arranged as a series of lectures and smaller 'breakout' group discussions.

On your course, you are asked to engage in different learning activities for a reason, and this includes building confidence in your own enquiries. It is not the teacher's objective to drill you in a set way of thinking. Rather, they hope to acquaint you with







different approaches to enquiry and understanding. Sometimes teaching precedes a programme of library enquiry. You are assisted in deciding, for example, whether a theory holds good in all circumstances (deductive learning). Sometimes you are tasked with personal enquiries in order to build a theory of your own (inductive learning). The organisation of studies within a module will have a specific purpose, although that might not always be apparent! Your course is likely to require very active learning; it will not be sufficient to sit, wait and take notes.

If Part 2 is about the process of learning then Part 3 is about the process of expressing what you have learned. This part opens with a chapter on evaluating evidence. During your nursing career, you will have access to a wide range of evidence of varying quality, so it is vital that you can reason to best effect. I assist you with the matter of writing different sorts of essays (analytical and reflective) and building a portfolio that helps you to demonstrate your progress. While there are many forms that assessment can take in nursing courses, the principles of analytical and reflective writing remain firm. In this part, we spend some time illustrating how you can demonstrate the different levels of critical thinking that may be required at different stages of your course. Part 3 also includes a new chapter on writing clinical case studies, something that will be important when justifying the planning of patient support over a series of care episodes. The clinical case study helps you to link reflective practice skills and critical analysis of evidence together.

Learning features

Throughout the book, you will find activities that will help you to make sense of and learn about the material presented.

Some of the activities ask you to *reflect* on aspects of practice. Other activities ask you to *think critically* about a topic in order to challenge received wisdom. You may be asked to *research a topic and find appropriate information and evidence*, as well as to be able to *make decisions* using that evidence.

All of the activities require you to take a break from reading the text, think through the issues presented, and carry out some independent study, possibly using the internet. You might want to think about completing the activities as part of your portfolio.

NMC Future Nurse: Standards of Proficiency for Registered Nurses

In 2018, the UK's NMC published its Future Nurse: Standards of Proficiency for Registered Nurses (NMC, 2018b), describing what registered nurses must be able to demonstrate at the conclusion of their nurse education. Relevant standards are detailed at the start of each chapter in this book.







Supporting the NMC code of professional practice

In addition to the above standards, this book works closely with the NMC code of professional practice (*The Code*).

The Code (NMC, 2018a) describes four areas of professional responsibility:

- prioritise people;
- practise effectively;
- preserve safety;
- promote professionalism and trust.

Prioritise people

Nurses are required to attend quickly, considerately, respectfully and compassionately to other people, both the service users within healthcare and their colleagues in practice. Nurses must be able to analyse others' likely needs and concerns, as well as respecting their confidentiality and individuality while doing so. It is important for nurses to listen to the experience of patients and what they relate about their expectations of care.

Practise effectively

It is not enough that nurses are respectful and considerate towards patients; they must be effective as well. Healthcare resources, be they medicines, materials or the nurse's time, are scarce resources and must be used to best effect. To work effectively, *The Code* requires that nurses make the best possible use of evidence, communicate clearly, work co-operatively and share their skills and expertise with others.

Critical thinking (Chapter 1) is important in efficient and effective practice. What will work best, and why? What is the best order in which to do things? Why might it be better to act in one way than another? Chapter 8 helps you to better understand evidence that stems from research, clinical audit and clinical case studies. Although evidence may recommend a particular course of action, it may not seem the best or most desirable course of action to the patient, so reflection (Chapter 2) is important here as well. A nurse might need to 'sell' the benefits of a recommended course of action to a patient.

Preserve safety

Nurses have the potential to cause considerable harm and to do great good. With this in mind, *The Code* requires that nurses work within the limits of their competence, as







well as within the protocols and policies established by healthcare organisations. They must be prepared to raise concerns where patients seem at risk and to intervene in emergencies where they have the requisite competence to do so. Nurses must be prepared to acknowledge mistakes or errors, as well as act quickly and collaboratively to mitigate these where possible.

Judging exactly what you know, as well as how confident this might make you feel, is important. What you read about in Chapter 1 (critical thinking) and Chapter 2 (reflection), as well as what you learn in Chapter 3 (scholarly writing), will prompt you to examine again what supports your decision-making. Safety often relies upon judging when not to act, when it is better to consult or refer, and this in turn relies upon a willingness to examine why something seems like a good idea.

Promote professionalism and trust

The Code reminds nurses of their professional responsibility to uphold the reputation of the profession, as well as their own status as a nurse. To this end, they must act without favour and not accept loans or gifts that might otherwise influence their professional judgement or the reputation of the profession. They must respond promptly and considerately to complaints, as well as exercising leadership as part of their work to promote the well-being of patients and excellence in care standards. Registered nurses are expected to carry on learning, refining and improving their professional skills, and mastering new knowledge or approaches to care that reflect what evidence has taught.

Being ready to examine complaints honestly, as well as confronting suspect practice, relies upon our readiness to judge evidence and explain our reasoning. What is excellent? What is suspect? What could lead to harm or difficulty for the patient? We will need to think objectively and critically (Chapter 1), as well as reflecting on events, even though this causes us to revisit our own values and beliefs (Chapter 2).









Understanding thinking, reflecting and writing













NMC Future Nurse: Standards of Proficiency for Registered Nurses

This chapter will address the following platforms and proficiencies:

Platform 1: Being an accountable professional

At the point of registration, the registered nurse will be able to:

- 1.8 Demonstrate the knowledge, skills and ability to think critically when applying evidence and drawing on experience to make evidence informed decisions in all situations.
- 1.9 Understand the need to base all decisions regarding care and interventions on people's needs and preferences, recognising and addressing any personal and external factors that may unduly influence their decisions.
- 1.18 Demonstrate the knowledge and confidence to contribute effectively and proactively in an interdisciplinary team.

Platform 3: Assessing needs and planning care

At the point of registration, the registered nurse will be able to:

- 3.5 Demonstrate the ability to accurately process all information gathered during the assessment process to identify needs for individualised nursing care and develop person-centred evidence-based plans for nursing interventions with agreed goals.
- 3.7 Understand and apply the principles and processes for making reasonable adjustments.







Chapter aims

After reading this chapter, you will be able to:

- define critical thinking in your own practical terms;
- discuss why this skill is important in nursing;
- summarise different aptitudes associated with critical thinking;
- indicate your level of confidence associated with each of the aptitudes of critical thinking;
- describe what constitutes more sophisticated forms of critical thinking.

Introduction

Let me start by setting a context for our discussion of critical thinking. Your career in nursing has never been more dependent upon the ability to reason effectively. Critical thinking is important for your personal well-being and your sense of progress. Here are three issues that highlight this:

- 1. The knowledge that we use to nurse today is much more complex, and it includes a mass of sometimes contradictory, incomplete or contentious information (Huber et al., 2021). This has implications when patients ask you for advice, and when they evaluate what you do. If we do not know how to evaluate complex information, to conceive of problems and solutions to best effect, then we will struggle to be successful carers.
- 2. Our knowledge operates where there remains a gulf between what could be done and what philosophers believe should be done (Salifu et al., 2019). Just as the demands of health consumers have increased, so have the aspirations of nursing as a profession. We hope to offer more bespoke care. What could and should be done, however, often conflict. You must work in settings where resources are finite. You cannot promise to deliver everything that everyone desires, so you must make difficult decisions about what you can offer. Those decisions involve the strategic use of information. This prompts a new question: Can I make these ideas work?
- 3. Nursing knowledge operates within the context of shifting roles and responsibilities (e.g. Boyne et al., 2022). What we do today is very different to what nurses did 20 years ago. In many areas, practice is extended, and nurses do work doctors did previously. Once upon a time, nurses talked about 'basic nursing care', but today we might struggle to agree what 'basic' means.

Activity 1.1 Reflection

Pause now to consider what such complex information and a changing context might mean for how you learn about nursing at university. For example, is absorbing material via







lectures the most effective way to learn? Why might it be advantageous for you to learn how to explore problems or needs with others, and to conduct enquiries actively, in other settings such as the library?

My brief answer to such questions is given at the end of this chapter.

Critical thinking

We have been involved in reasoning throughout our lives. However, many of the past decisions that we have made have been managed without great analysis. We have behaved instinctively and accepted what seems 'common sense'. To be successful nurses, though, we need to practise the skill of critical thinking in a more conscious manner (Standing, 2020).

Critical thinking can be described as having two foci. The first entails the careful scrutiny of phenomena, processes, causes and effects. These are **empirical** things, facts, statistics, tests and results. This involves the exercise of what has been called **cognitive intelligence** (Barbey et al., 2021). When you assess a wound, for example, you examine the extent and depth of the wound, whether it is infected. The assessment is dispassionate and measured. But in nursing, critical thinking also involves an understanding of how we and others feel (e.g. what it involves to be ill). This is **emotional intelligence** (Tiffin and Paton, 2020). Nurses need to exercise emotional intelligence to deliver care well. If we don't understand what a patient believes and how they feel, we are less likely to build a rapport with them.

What, then, do we mean by critical thinking? I suggest that critical thinking is:

A process where different information is gathered, sifted, synthesised and evaluated in order to understand a subject or issue. Critical thinking engages our intellect (the ability to discriminate, challenge and argue), but it might engage our emotions too. To think critically, we need to take account of values, beliefs and attitudes that shape our perceptions. Critical thinking, then, is that which enables the nurse to function as a knowledgeable practitioner – someone who selects, combines, judges and uses information in order to proceed in a professional manner.

Critical thinking and learning

To help you explore further, meet now four student nurses and one staff nurse who are helping us in this book. Stewart, Fatima, Raymet and Gina are students, while Sue is a staff nurse on a busy hospital ward. Sue's interest is in the use of critical thinking to prepare for revalidation (NMC, 2019), but she remembers what study was like. We will return to our case study nurses periodically throughout the book.







Critical thinking

Our case study nurses meet up to discuss some of the challenges of completing a nursing course. While their studies are interesting, they all acknowledge that learning can be difficult because of the critical thinking required.

Activity 1.2 Reflection

Look now at the accounts in the box below of critical thinking challenges reported by our group.

- Have you encountered similar concerns?
- Why do you think that the case study nurse accounts tell us about how nurses have to think?

As this answer is based on your own observation, there is no outline answer at the end of the chapter.

Case study: Five critical thinking challenges				
Stewart:	'I've realised not only that there is important theory to grasp, but that it isn't always simple to use in practice. Not everything in theory seems open to use. Some of it must be adjusted before you can use it. Maybe some of it is just nice to know?'			
Fatima:	'For me, it's the uncertainty. I long for a right answer, something that I know is just correct, and a lot of what we're learning about – for instance, ethics – isn't so clear-cut.'			
Raymet:	'I agree. But have you noticed just how much information there is? It's like they fill up your kitbag with everything you could ever want and then leave you to decide when to pull it out. The sheer volume is worrying.'			
Gina:	'I wouldn't disagree with any of those points. But have you noticed how important it is to understand processes as well as purposes? You quickly learn what you should do, but how to do it is something more complex. It's that which I find myself admiring nurses for.'			
Sue (registered nurse):	'Goodness, I remember those anxieties. The learning I do now for professional update is less structured. I must decide what I wish to improve upon, and then to judge the best ways to meet my needs. That means sometimes confronting care that I didn't get right. It means being candid with myself about the need to change what I do.'			

You might already empathise with these five colleagues, each of whom describes something about critical thinking in nursing. Nursing practice relies heavily on the skills of the nurse, and central among these is the ability to reason. Skills are made up of a







series of component parts, and it is the way in which these are combined and used that determines how skilful the practice seems (Gobet, 2005; Gobet and Chassy, 2008; Sala and Gobet, 2017) (see Figure 1.1). While the circumstances under which critical thinking must be exercised may change (e.g. an emergency versus palliative care), expert practitioners are still able to combine the components of critical thinking in ways which serve well (Sala and Gobet, 2017). This is because the ways of thinking in different situations (templates) are repeatedly tested by the nurse.

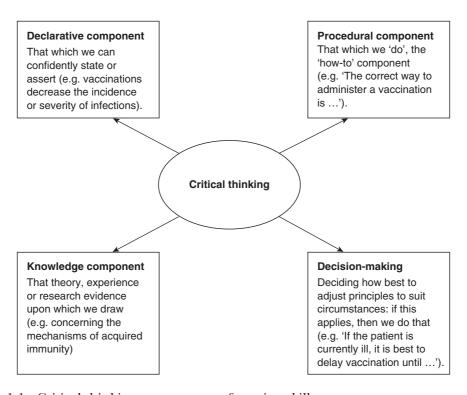


Figure 1.1 Critical thinking components of nursing skill

In the case study above, Stewart refers to the first of these components. Stewart worries about the application of theory. If we are going to deliver good nursing care, we must know how to combine and apply information. But information does not fit everywhere. So, for example, a series of seminars on grief might have value with dying patients, but wider application may be limited (it has limited utility). Not all information gleaned can be immediately used, nor is it universally taught for use in practice. Sometimes we learn things to appreciate how nursing has evolved. That said, however, we are usually faced with a challenge. We must be able to declare certain things (as true, sound, proven and/or relevant) if we are to build the confidence to care. Without that, we feel paralysed. What we need, then, is knowledge that has a frequent fit with clinical demands. It is not unreasonable to discuss the best fit use of information with your tutor. How abstract is the theory? Does it recognise the differences between patients, their histories and cultural backgrounds, for example?









Activity 1.3 Reflection

Try now to think of something within nursing that you must be able to assert confidently which also has utility (i.e. it is workable) in your chosen area of recent practice.

An outline answer is given at the end of this chapter.

Fatima refers to a second important component of critical thinking: *decision-making*. There is often no 'one-size-fits-all' solution. Fatima is keenly aware that nurses must deal with uncertainty, sometimes waiting to gather more information before deciding. Living with such uncertainty, especially in clinical practice, is what can seem stressful for nurses. They must learn to read developing situations and weigh the merits of different courses of action.

Raymet is worried about how best to artfully select and combine information to make excellent decisions. Established nurses seem to do it easily, explaining that they use 'nous'. The practice supervisors Raymet has met describe nous as a mix of thinking, remembering (from **experience**) and interpreting (how patients and relatives respond). We can only reason effectively if we have amassed enough high-quality knowledge that makes sense in the context of care (Ellis, 2019). Nurses must speculate how different bits of information might fit together to imagine how care could work. They must use both cognitive and emotional intelligence.

Activity 1.4 Reflection

Identify now one example of a difficult decision that you know about from clinical practice, or one that was debated in class. Was the decision of the either/or kind or was it more complicated, with multiple options and the merit of each dependent on factors such as patient preference?

An outline answer is given at the end of this chapter.

Both Gina and Sue refer to the *process* part of the skill. Reasoning is not only concerned with deciding what knowledge is appropriate, determining what is true, safe or effective, and making judicious decisions; it is also concerned with how you plan your work. When a nurse gives an injection, they determine the right order in which to proceed. The nurse first consults the patient about the planned injection, secures consent, and then ensures a private environment to help to protect the patient's dignity. Planning the right sequence of work is important, whether completing a clinical procedure or planning update enquiries.





Activity 1.5 Critical Thinking

Explore now with a chosen colleague an activity from your recent learning to determine the different ways in which reasoning has had to work (deciding what you can claim, making decisions, reviewing knowledge and deciding on process). Next compare notes with your colleague on which of the skill components seemed toughest, and why.

Because this activity focuses on your chosen learning activity, no additional remarks are added at the end of the chapter.

In my experience, it is often the **declarative critical thinking** component of a skill that seems hardest to students. There is sometimes no single 'right' answer, but there are better answers. To ascertain those, discussion and consultation with others is so important. That is why nursing courses build in so much discussion time and why you are asked to 'think aloud'. Qualified nurses confront the declarative skills component problem by conferring with colleagues and sometimes collaborating on case conferences. It is professionally important that nurses acknowledge what they are unsure about and are candid about any dilemmas that they face (NMC, 2018a).

No matter what part of the course you are studying, you will be engaged in critical thinking, combining and recombining the different components of nursing skills so that you can proceed in ways which seem professional. Nursing practice must be reasoned, and the actions of the nurse reasonable. Indeed, in a court of law, judgements about whether a nurse's actions are negligent are based upon what a reasonable practitioner would deduce or do (Baylis, 2015). What the case study nurses will learn throughout their course is designed to enable them to work more safely, strategically, effectively (achieving required outcomes) and efficiently (using resources wisely).

Building templates

You might wonder, what next? Once we appreciate that critical thinking involves these different skill components, what follows on from that? The brief answer is that you start to develop some **templates** to make better sense of what you have discovered, what you have been taught, and what you might then do. For templates to work you need to draw on relevant constituent concepts. A list of concepts that nurses regularly use might include pain, recovery, rehabilitation, support and effective listening. When









the concepts combine to facilitate practical actions, responses to needs or concerns, we call them templates. 'Template' sounds like a technical term, but it simply means a working explanation of what we encounter and how we can best respond. Human beings develop templates from childhood (Gold et al., 2016). For example, babies learn very quickly to make distinctions between what is threatening and what is comforting. A smile represents friendliness, and a glare represents threat. As you get older, you develop strategies to respond to friendliness and threat – you have been building templates for a good many years.

In nursing, though, the building of templates should be rather more conscious. Much of your teaching is designed to help you to do that. The very best practice supervisors explain how they assess practice situations – they share their working templates. I asked Sue to help with this using an example of a template that she uses nearly every day of her working life. She chose allaying anxiety. Patients frequently exhibit anxiety, and the nurse needs a working template to deal with it. Here is what she said:

Anxiety is something you recognise as a pattern. Certain things go together again and again, and that enables you to predict what might cause anxiety and how it will emerge. When you anticipate it well and move to reassure the patient, they appreciate your care. So, for anxiety, the pattern includes things like sudden change, a lack of or too much information, words and terms that seem very technical, and doubts about their ability to control what happens next. That is what evokes anxiety. You counter anxiety using different tools – reassurance, yes, but giving patients room to express their fears as well. So, if you keep checking your solutions against anxiety, you develop a working template. It's something you can use while staying ready to think again if something new pops up.

Your course is designed to help you to develop working templates that will help you to practise nursing. That is why you are taught theory, why you share seminars (exploring what works well together), and why it is good to ask practice supervisors about how they read clinical situations. When we think critically, we hope to recognise patterns of information, those that represent something important to us (e.g. risk, rehabilitation, relapse, cancer, depression, compassion).

To build these templates, though, we are going to have to engage in some important work that connects reasoning to study.

Making critical thinking work for you

I asked the case study nurses to tell me what seemed to count as critical thinking in their nursing course, what seemed to be especially valued. I wanted to know what they thought was welcomed by tutors. What they told me is shown in Table 1.1.





•)

Student	Aptitude	The student said
Stewart	Asking questions	'If you don't ask questions, then you simply accept others' explanations, and that could be wrong. You must be inquisitive.'
Fatima	Discriminating	'I find that you need to show how you reach conclusions, weighing up information. You must show that you've thought about what is relevant.'
Raymet	Making arguments	'I don't think you can just hide behind what others have claimed. You must explain what you think and take a considered stance.'
Gina	Interpreting and speculating	'I think that you show why you think something is significant, so you explain why you focus on it. But it is also important to say when you are speculating what could be the case. Don't be arrogant.'

Table 1.1 Critical thinking aptitudes

Asking questions

Asking questions is certainly important, but individuals vary in their levels of confidence. Perhaps you worry that asking questions betrays an uncomfortable level of ignorance. Asking questions, though, especially when working with professional colleagues, is at the heart of healthcare. Questions are frequently used to clarify the best care options, and at best these involve patients being involved in decisions. Sometimes a seemingly naive question is the one that transforms everyone's understanding of a clinical situation. You may hear practice supervisors rehearsing questions aloud as an aid to planning care: 'If I want to teach Mrs Jones about her insulin therapy, what does she need to understand in order to keep her safe and help her to master injection-giving?'

You can improve your question-asking by:

- deciding exactly what you need to know this will help you to be precise as regards what you ask about;
- formulating your question in a way that establishes your focus of interest it is better, for instance, to link a question about patient experience to a contextual concern, such as preoperative anxiety;
- jotting down your question before you ask it this will help you to explain what you wish to understand.

Discriminating

There comes a stage where we must discriminate between what is relevant and what is irrelevant, as well as what is true and what is false. Discrimination involves weighing up information and determining what seems sound and is supported by others. One example of discrimination in action is where a nurse searches for evidence to support a







given practice. The nurse reasons that the information supplied through well-designed research studies is better than that derived from anecdotal evidence. If you are judging the claims made by others, one way of showing discrimination is to ponder the circumstances or conditions under which that claim might be false. 'Under what conditions might it be unsafe for the patient to remain at home to receive care?' is an example of a question that might be used.

A part of discrimination involves judging what can work in practice. Is theory always operable? Person-centred care, for example, is a theory that has significant appeal for nurses (me included), but it does make significant demands on patients as partners. The extent that we can demonstrate it may depend on the patient's readiness to collaborate, as well as the nurse's skill (Price, 2022).

Showing appropriate discrimination in your reasoning will be important in your written work. You will need to demonstrate that you have considered possible explanations of what you have read, as well as determining what you need to consider before you elect a particular course of action. In Part 3, we discuss different levels of critical thinking in your writing, and one of the markers of higher-level critical thinking is that not only can you identify what must be discriminated between (the competing explanations), but you can also reason why one explanation seems better than another. Where writing shows little or no recognition of competing explanations, it might be described as uncritical or even opinionated.

Making arguments

Arguments are formulated about a variety of things: what should be done next, what this literature suggests, and what constitutes compassionate care. Arguments are necessary, as they explain the basis of nursing in action and why we are working to the goals that we have. An argument is made up of a case (what we believe is true) and **premises** (the things that support the case) (Chatfield, 2022). Both the case and the premises may be supported by research evidence, audit and experience. So, for example, we might make an argument about patient anxiety and how it interferes with collaborative care planning: 'Collaborative care planning is made more difficult with anxious patients (the case) because patients have a limited command of relevant information, and they feel less powerful than clinicians (two supporting premises).' Notice the importance of the word 'because'. If we do not include what follows the case, we only present an opinion. We can only evaluate the argument if we understand on what basis the case is presented.

Classically, an argument such as this is judged regarding whether the premises and the case fit well together. Are the premises sufficient to support the case? But we might also consider whether the argument seems complete. There may be other factors that affect collaborative care planning (e.g. clinicians' willingness to consult with patients).

In nursing, the rationale for an argument may be based on evidence, but it might also be based on **moral justice** (Supady et al., 2021). Some arguments are made on ethical grounds regarding what *should* be done. A good way to strengthen your arguments within





a debate is to show that you have carefully considered alternative arguments, namely other ways to see the situation. You then reject some arguments by offering a rationale for why they are weak (the premises do not support the case).

Activity 1.6 Collaborative practice

Have a go now formulating an argument for your colleagues to interrogate. Remember that the argument needs a case (that which you claim) and premises that support it. Typically, the case is presented first, and then after 'because' come the underpinning premises. Did your colleagues support your argument? If it seemed weak, what do you think the problem was? An unclear case, weak premises, the wrong premises? Remember that your coursework will often need to include arguments, so what you test out here could be especially valuable.

As this answer is based on your own observation, there is no outline answer at the end of the chapter.

Interpreting and speculating

Interpreting involves making sense of that which is encountered. A variety of stimuli are received by the nurse (e.g. auditory and visual information) and these are converted into perceptions (impressions) when the nurse combines this information with past experiences (memories). Successful interpretation then relies upon being alert to all of the possible information, and then understanding how this can be combined to determine what is happening (Cooper and Frain, 2016). Sometimes conflicting information will be encountered that makes it harder for the nurse to decide what the information signals (e.g. risk, improvement, deterioration, sepsis, a new stage of illness). Nevertheless, interpreting is an important skill element because it links enquiry to the formulation of the templates that you have already read about. Eventually, enough information might amass, tested against research and experience, for the nurse to say that there is a clear pattern which represents 'patient anxiety'. This is important, and we must act in these ways if patients are not to suffer unduly.

While searching for such patterns is most readily related to clinical demands, it is also important in your campus studies. A literature search may, for instance, suggest that recurring themes arise on your chosen topic. Imagine that you were investigating disfigurement and its effect on patient well-being. If the literature repeatedly threw up the importance of injury context (e.g. an acid attack) for the degree of distress that a disfigurement causes, it would be reasonable to highlight that in your analysis. We search for patterns of information to help determine where we enquire next and how we might respond.

I have left **speculation** until last, and I consider it extremely important. Successful nursing relies in large part on nurses 'thinking outside the box', daring to consider options or solutions that are unfamiliar. Creativity and imagination therefore form a valuable part of critical thinking, one that can help nurses to improve the lot of patients.







Sue talks about a nurse that she admired:

One specialist nurse I knew pulled all the information together about teaching diabetic patients, and she quickly realised that with the staff available they couldn't do it in the usual one-to-one way. That was when she suggested that they should teach patients in groups and organise the sessions so that the patients could help each other out. As the patients assisted one another, the specialist nurse watched them to assess who understood diet and insulin therapy.

Remaining ready to speculate suggests an inquisitive mind and is welcomed by tutors. Here are some questions to consider that help you practise speculation:

What is happening here?

What is important if this happens?

Why did that happen or unfold in that particular way?

Why does this person seem upset or especially pleased?

How did that process work (who did what, when and why?)

Now that this has happened what could helpfully happen next?

When will things change? (for example, the patient entering a new stage of illness?)

Simple questions such as when, where, how, what and why help you develop an inquisitive and a speculative mind.

A readiness to speculate about what is problematic, or what could be done better or differently to make the best use of the resources available, is often at the heart of high-quality healthcare. Even when others prefer to work within the status quo, it is incumbent upon nurses to examine what is being done – and what more could be done – to improve patient care (Bolton and Delderfield, 2018).

How can we reason better?

Let us take stock. So far, we have acknowledged that critical thinking is important because of the challenging healthcare environment which you will work within. We have defined critical thinking as an inquisitive but disciplined process that involves human experiences and feelings, as well as empirical information. We have suggested what the key components are within critical thinking (e.g. deciding what can be claimed) and acknowledged the aptitudes that you will need to develop (e.g. asking questions) in order to succeed. I have suggested that learning involves incremental work towards templates, that which enables us to work effectively and efficiently to address nursing care needs. What seems effortless to the experienced nurse seems difficult for us because we are still developing our thinking skills.

At this stage, it is tempting to hope for a formula, a sure-fire way to think in the right way. Would that we could use that formula to write our essays. Unfortunately, there







is no neat formula that encapsulates critical thinking in every circumstance. You will need to reason in different ways at different times, and sometimes combine information from your different places. In the past, nurses used to be taught bundled information (e.g. surgical nursing, medical nursing), but that did not facilitate the sort of nimble reasoning which nurses need today. We should not trap information in different silos relating to, for instance, cancer. That which we learn about coping, for example, may serve in many other contexts.

Nimble reasoning seems to work in two ways, sometimes in parallel:

- *Deductively*: We test theory (our own and that received) to see whether what we predict is in fact the case (e.g. concerning how people usually cope with illness).
- *Inductively*: We gather information in order to formulate theories of what is happening (e.g. noticing that patients tell stories about their illness as a means of managing stress levels).

Not all critical thinking is equal. There are certainly weaker and stronger ways of reasoning, and this usually informs how tutors mark coursework. The more sophisticated your reasoning approach, the better the mark you might attain. Rest assured, though, that expectations regarding your reasoning ability grow incrementally over the course – you are not expected to be an expert at the outset.

Reasoning approach	Description
Independent reasoning	We construct a template that adequately explains what is important about the work that we do. Perhaps that explains successful care: the nurse marries what the patient believes they need with what science recommends. We take a <i>position</i> on what is then important.
Contextual reasoning	We rely strongly on contexts to determine what we focus upon and accept that as important and valuable. For example, we might suggest that the social circumstances of the family of a dying patient strongly influence how they cope with the news that the illness is incurable.
Transitional reasoning	Reasoning involves living with doubts, about what is true, or important. We learn to wait and see, and accept that right now several explanations of the situation might have to be considered. We admit what we don't yet know.
Silent absorption	We absorb and appreciate a growing volume of information, noting the same without necessarily venturing an opinion. For example, perhaps you attend a series of lectures on infection, venturing no opinion on what is discussed until the series is complete.
Absolute reasoning	We search for what is right or wrong, making clear distinctions – that which is fact and that which is not. We search for the definitive answer that properly supports care decisions.

Table 1.2 Ways of reasoning







Activity 1.7 Decision-making

Look now at the array of reasoning described in Table 1.2. Decide which you think are the more sophisticated forms and which are much more basic. Decide for yourself if you employ one of these approaches more than others.

1. Absolute reasoning

Nursing demands different forms of reasoning at different times, but here I venture the following. The least sophisticated forms of reasoning are what Baxter Magolda (1992) calls *absolute* (Mason, 2005). At this level, the individual is unable to see the different nuances of a situation or accept that a range of possible perspectives could be taken on a subject. The thinker looks for certainty and only feels secure when matters have been decisively concluded (e.g. 'this is right', 'that is wrong', 'this is what we believe', 'that is what we don't believe'). If you are prone to thinking in this way, you might note how often you ask your tutor or practice supervisor to confirm what is 'correct'. While an absolute might be expected with regard to some areas of work (e.g. the right drug to use in an emergency), it is not something that is possible or even desirable in many other situations (e.g. finding the right way to deal with a hallucinating patient). **Absolute thinking** is a common way of reasoning at the start of a university education, and it is the least sophisticated because we expect rules to govern so many things.

2. Silent absorption

I have placed silent absorption next, as it is linked so strongly to inactivity. The thinker waits, soaking up more and more information in the hope that reasoning will be assisted by the accumulation of knowledge. In practice, this does not always work out, even though it may have been your tried-and-tested way of learning before. More information does not always lead to clarity, and there is a need to ask questions and discuss ideas if we are to develop confidence in our reasoning. Staying at the back of a class and hoping to avoid debates and discussions is not the best way to learn to reason, although it is understandable to begin with if the subject is entirely new to you.

3. Transitional reasoning

I suggest that transitional reasoning is better. The thinker is ready to live with the uncertainties of knowledge but is also ready to question as opportunities present themselves. You will need to reason in this way, accepting that in some clinical contexts, and for the





time being, not all can be understood about a situation. Insights emerge from what is experienced and discussed, and in the meantime, it is necessary to remain alert to what experience or a carefully selected question can assist you with. You might be using transitional reasoning if you habitually try out questions with your tutor to clarify what seems acceptable in an essay.

4. Contextual reasoning

Contextual reasoning is even more sophisticated and suggests that the thinker understands there are lots of different truths in the world – and what works in one context does not always work in another. This is not to suggest that you have no principles or standards, or that 'anything goes' within nursing. Principles and safe practice are important, but there may well be different ways of doing things within those parameters. A good example of this working well is where nurses explore with patients the nature of dignity. What represents dignified care can vary widely, and take into account patient expectation, lifestyle and customs (Blomberg et al., 2019).

5. Independent reasoning

Independent reasoning is arguably the most sophisticated form of reasoning and one that helps you to become more innovative over time. At this level, you allow others to adopt their own position and to develop arguments in support of the same, while you build your own case about the subject in hand. You carefully search what there is to support your own position, stand ready to change it if others can persuade you, and treat all discussion in a thoughtful and enquiring way.

As you review your answer to Activity 1.7, do not be alarmed if your own thinking was near the bottom of this hierarchy. Students frequently need to work from the bottom. Moving from more familiar ways of reasoning to those that involve greater uncertainty and challenge means that you have to move out of your comfort zone.

Stewart, one of the case study students, described how his reasoning was slowly moving up the hierarchy described here. For him what was key was his own curiosity about a subject matter (e.g. patient psychology) and a 'found soul' that was adept at speculating about the subject with him. Two people in particular helped Stewart: a staff nurse on the ward and his personal tutor. Both helpers saw learning as fun and mistakes in thinking quite normal. What seems important is working with others whom you trust to respect your learning journey. Tutors are trained in such work but there are many others with an empathetic instinct for helping too. Such individuals typically:

- Demonstrate introspection, they question themselves and their ideas as they proceed.
- Have a sense of humour, smiling at their own small mistakes while focusing firmly on what must change.









Critical thinking

- Play 'what if' games, imagining how situations could change, if the nurse proceeded differently.
- Use questions gently; they encourage you to revisit a claim, to explore an assumption.

You might think that only people at the pinnacle of the hierarchy of reasoning can help you make progress. This isn't entirely true though. Sometimes a subject expert is not necessarily so well versed in explaining their thinking to others. You might encounter awesome lecturers ('they know so much!'), who are inaccessible thinkers. The lecturer explains 'what' without necessarily explaining 'why'. So clever might they seem that you fear seeming stupid if you ask a question. What is important is that the person who helps you, understands the journey you are making. Great tutors and course designers do. Because learning is a discovery process too, where mistakes are allowed, it is perfectly possible to learn with and from another considerate student.

Learning in groups, with and from peers, is a valuable learning process. It's unwise to assume that only the qualified can teach you something. In turn you as well might find yourself helping a colleague learn. We hope that learning might be fun, but in truth, it is often a process of challenges and sudden relief as we take each step forward. When you experience that relief with a colleague, discover what you have both understood, it can seem the best experience.

Chapter summary

I have introduced you to basic ideas about critical thinking and explained that it is a process which involves the gathering, receiving and processing of information in order to understand the world around you. It is important in nursing for a number of reasons, e.g. problem-solving, and the management of a great deal of uncertainty that attends patient care.

Critical thinking has different components that you will meet again and again. You will, for instance, debate what can reasonably be asserted on a given topic. To do that, you will need to develop a series of aptitudes that will help you to advance your enquiries and make more confident decisions, such as asking the right questions.

While this can seem confusing, the purpose of your enquiries has in fact a logical and a professional end. You are learning to develop templates, ways of reasoning that work in practical and professional ways to deliver care to patients. While experienced nurses seem to do this effortlessly, they have in fact struggled much like you in the past. They have learned to identify patterns of information that serve them well when they deal with the ambiguity of care. There is a purpose to your learning: to respond to care requirements in an efficient, effective and patient-supportive way.







Learning to think critically, though, does not happen overnight. The nursing course is designed to exercise you in different activities that help you to move from more rigid ways of thinking towards nimble and innovative ones. Learning to think critically involves some anxiety, but expert tutors and practice supervisors are well versed in helping you to find a way through.

Activities: brief outline answers

Activity 1.1 Reflection (page 10)

Because the world of nursing is complex, information rich and sometimes contradictory it means that the subject cannot simply be instructed. Much as we might cherish a traditional lecture by an expert, that is unlikely by itself to equip us to think and act in ways that nursing requires. We will have to deal with the untidiness of nursing and the stressful demands made there. So, learning at university is likely to require much more active enquiry and collaboration. You are going to have to manage uncertainty more than in say in an academic subject previously taught at school. What can or should we do, where, how and why?

Activity 1.3 Reflection (page 14)

Here is my example. I think that we must be able to assert what counts as teaching. That might surprise you because you are learning to nurse, not to become a teacher. Yet I suggest that you will teach a great deal, especially to patients and relatives. Of course, teaching is different in clinical practice; we do not lecture patients and they are not put through exams like campus students. But we do have to help them solve problems, cope better and master medications. Knowing how teaching works, what we need to do to help patients adapt seems to me very important. It may determine whether patients stay safe and become independent again. A good understanding of teaching is of immediate benefit to practice – it has utility.

Activity 1.4 Reflection (page 14)

My memorable decision relates to helping patients recover from burns. I specialised in body image care. This patient, like many others, had facial burns and was anxious about encountering others who might stare at him. He was a Falklands War veteran who later became a public speaker, but he did not have much confidence back then. The patient and I debated how to get used to public settings again. We reviewed the merits of doing this on a 'try it and see' short-exposures basis. I suggested that he go to watch the news, sitting at the back of the ward TV room first. That was a legitimate reason to be out and about from his room but a short enough time not to become too uncomfortable. Other patients would also be focused primarily on the TV screen. I suggested that we treat it like a military exercise, with a debrief to discuss how it went at the end. We realised that to begin too quickly with more adventurous visits, perhaps to a shop or a café beyond the hospital, would seem too much. The decision, then, was a carefully consulted one, something that offered the patient options about what we might do next. I suspect that many of yours will be too. Nurses help patients to make decisions of their own.

Further reading

Braithwaite J (2006) Critical thinking, logic and reason: a practical guide for students and academics.

Don't be put off by the age of this article, it still offers valuable information about how reasoning is sometimes conceived of at university. You are likely to encounter scientists there who see reasoning strongly in Socratic terms. In nursing, however, we give greater scope to







Critical thinking

emotional intelligence. Braithwaite offers a good summary of reasoning and logic, a natural sciences complementary account to how I have conceived of critical thinking here.

Chatfield, T (2022) Critical thinking: your essential guide, 2nd edition. London: Sage.

This is a valuable book once you start to develop your own reasoning ability. It would work especially well when studying a postgraduate course. It is informative, too, if you are interested in the philosophical basis of reasoning, that taught by Socrates and others. Tom explores different contexts of reasoning, for instance scrutinising the arguments of others and detecting bias. He is writing for a wide student audience so don't expect healthcare application, but the more you become intrigued by reasoning, the more valuable this resource starts to seem.

Standing, M (2023) *Clinical judgement and decision making in nursing*, 5th edition. London: Sage/Learning Matters.

Mooi Standing details what underpins so much of clinical decision-making: the ways in which critical judgements are made in practice. This book provides an important illustration of applied critical thinking, drawing on ethics and evidence, as well as experience.

Useful websites

Note: Website material is subject to change or removal at short notice.

 $https://www.academia.edu/316239/Critical_Thinking_Logic_and_Reason_A_Practical_Guide_for_Students_and_Aca$

Braithwaite J (2006) Critical thinking, logic and reason: a practical guide for students and academics.

Don't be put off by the age of this article, it still offers valuable information about how reasoning is sometimes conceived of at university. You are likely to encounter scientists there who see reasoning strongly in Socratic terms. In nursing, however, we give greater scope to emotional intelligence. Braithwaite offers a good summary of reasoning and logic, a natural sciences complementary account to how I have conceived of critical thinking here.

www.wikiHow.com/Reason

How to reason: 9 steps (with pictures)

This is certainly not an extensive review of reasoning in the full, but I do think that it offers a reassurance when your course of studies seems daunting. It breaks reasoning down into nine steps, I would call them working principles, that should help sustain your efforts. Among these is the need to suspect that which you feel quickly passionate about. We can quickly forget how deep-seated beliefs can sway us, without adequate thought. Also valuable were the remarks about imagining how others think or feel, that will stand you in good stead within nursing.



