# EDUCATIONAL PSYCHOLOGY

FOR LEARNING AND TEACHING



# EDUCATIONAL PSYCHOLOGY

FOR LEARNING AND TEACHING

# EDUCATIONAL PSYCHOLOGY

FOR LEARNING AND TEACHING





Educational Psychology for Learning and Teaching 7th Edition Sue Duchesne Anne McMaugh Erin Mackenzie

Portfolio lead/Product manager: Fiona Hammond Content developer: Eleanor Yeoell

Project editor: Sutha Surenddar

Editor: Jade Jakovcic Proofreader: Anne Mulvaney

Permissions/Photo researcher: Liz McShane

Text designer: Dannielle Maccarone Cover designer: Linda Davidson Cover: iStock.com/vitapix KnowledgeWorks Global Ltd.

Any URLs contained in this publication were checked for currency during the production process. Note, however, that the publisher cannot vouch for the ongoing currency of URLs.

6th edition Published in 2019

#### Acknowledgements

#### AITSL deep link:

© 2011 Education Services Australia as the legal entity for the Education Council. Publication (as a pdf): Australian Institute for Teaching and School Leadership 2011, Australian Professional Standards for Teachers, AITSL, Melbourne. ISBN 978-1 -925192-64-3 First published 2011 Revised 2018

Module opener images:

Module 1, 2, 3 and 4: iStock.com/nadia\_bormotova

Module/Chapter opener background image: Pattern of slinky - iStock.com/Aleksandra Sokolovskaja © 2022 Cengage Learning Australia Pty Limited

This Work is copyright. No part of this Work may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without prior written permission of the Publisher. Except as permitted under the Copyright Act 1968, for example any fair dealing for the purposes of private study, research, criticism or review, subject to certain limitations. These limitations include: Restricting the copying to a maximum of one chapter or 10% of this book, whichever is greater; providing an appropriate notice and warning with the copies of the Work disseminated; taking all reasonable steps to limit access to these copies to people authorised to receive these copies; ensuring you hold the appropriate Licences issued by the Copyright Agency Limited ("CAL"), supply a remuneration notice to CAL and pay any required fees. For details of CAL licences and remuneration notices please contact CAL at Level 11, 66 Goulburn Street, Sydney NSW 2000, Tel: (02) 9394 7600, Fax: (02) 9394 7601

Email: info@copyright.com.au Website: www.copyright.com.au

For product information and technology assistance,

in Australia call 1300 790 853; in New Zealand call 0800 449 725

For permission to use material from this text or product, please email aust.permissions@cengage.com

National Library of Australia Cataloguing-in-Publication Data

Creator: Duchesne, Sue; McMaugh, Anne; Mackenzie, Erin (author).

Title: Educational Psychology for Learning and Teaching / Sue Duchesne, Anne McMaugh, Erin Mackenzie (author).

Edition: 7th

ISBN: 9780170449274 (paperback)

Notes: Includes index

Other Creators/Contributors: Sue Duchesne, Anne McMaugh, Erin Mackenzie

Cengage Learning Australia Level 7, 80 Dorcas Street South Melbourne, Victoria Australia 3205

Cengage Learning New Zealand Unit 4B Rosedale Office Park 331 Rosedale Road, Albany, North Shore 0632, NZ

For learning solutions, visit cengage.com.au

Printed in China by 1010 Printing International Limited. 1 2 3 4 5 6 7 25 24 23 22 21



# **Brief contents**

Chapter 1	Educational psychology for learning and teaching2
Module I	The learner developing over time 30
Chapter 2 Chapter 3 Chapter 4	Emerging skills
Module II	The learning process 194
Chapter 5 Chapter 6 Chapter 7	Behavioural views of learning
Module III	Individual difference in the inclusive classroom 312
Chapter 8 Chapter 9 Chapter 10	
Chapter 8 Chapter 9 Chapter 10 Chapter 11	the inclusive classroom312Motivation and engagement
Chapter 8 Chapter 9 Chapter 10 Chapter 11	the inclusive classroom  Motivation and engagement

# **Contents**

About the authors	xii
Acknowledgements	xiv
Guide to the text	XVXV
Guide to the online resources	xix
CHAPTER 1 Educational psychology for learn	ing and teaching2
Introduction3	1.4 Using research as a reflective teacher15
1.1 What is educational psychology?3	Reading and evaluating research15
Who studies educational psychology?4	1.5 Conducting research as
Why study all these theories?4	a reflective teacher17
Interactions between learning and teaching4	The research process17
Changes in the education landscape6	Research methods18
1.2 Introducing reflective teaching	Quality considerations in research21
Teaching as a reflective practice and process10	Action research23
1.3 Reflecting on your teaching practice 11	Strengths and limitations of research methods23
Keeping a reflective journal and portfolio11	Ethical considerations when
Mentors, critical friends and colleagues13	conducting research24
Observation13	Reporting research25
Reflecting on your personal philosophy of	1.6 Concluding comments25
learning and teaching14	Study Tools26





# Module I The learner developing over time

30

CHAPTER 2 Emerging skills	32
Introduction33	Brain development in adolescence55
2.1 Developmental systems theories	Adversity, risk and resilience in development58
Development as variable34	2.4 Language development61
Development as relational34	Language building blocks61
Development as influenced by context35	Language development during infancy62
Development as influenced by the child35	Language development during early
2.2 Physical development over time	childhood63
Physical development in infancy35	Language development during middle
Physical development in early childhood37	childhood64
Physical development in middle childhood38	Language development during adolescence65
Physical development in adolescence39	The role of adults in language acquisition66
Variations in physical development41	The role of peers in language acquisition68
2.3 Brain development	Examples of the principles of development
The brain's physical structures47	at work69
Internal structures of the brain48	Language for and in learning at school70
Brain development in infancy52	2.5 Principles of development70
Brain development in early childhood52	Development involves a series of progressive and
Brain development in middle childhood54	orderly changes building to maturity70
brain acveropment in middle childriood	Development is continuous but uneven 70

Development is a lifelong process71	Development occurs in context and is
Development can vary between individuals as	influenced by environment74
well as within each individual72	Children are active in development74
There are multiple pathways of development72	Development is cumulative74
Epigenetics: how nature and nurture work	2.6 Concluding comments75
together in development72	Study Tools76
CHAPTER 3 Cognitive development	86
Introduction88	Limitations of Vygotsky's theory105
3.1 Piaget's theory of cognitive	Linking Piaget and Vygotsky in
development88	classroom practice107
Factors and processes in cognitive development89	3.3 Information-processing components of
Piaget's stages of cognitive development92	cognitive development108
Strengths of Piaget's ideas95	Information stores and processes109
Limitations of Piaget's ideas95	Moving beyond traditional
3.2 Vygotsky's sociocultural	information-processing models116
theory99	3.4 Contemporary understandings
Sociocultural origins of cognitive	of cognitive development118
development99	Self-regulation119
Internalisation100	Executive functioning121
Social interaction101	Metacognition124
Language as a mental tool101	3.5 Concluding comments125
Zone of proximal development102	Study Tools126
Strengths of Vygotsky's theory105	
CHAPTER 4 Social, emotional and moral dev	elopment134
Introduction135	4.3 Understanding relations
4.1 Understanding our self136	with others164
Dimensions of the developing self136	The development of social
Development of our sense of self142	competence164
A sense of identity145	Developing relationships
4.2 Understanding others149	with peers168
Moral development149	Bullying and harassment174
Theories of moral development	4.4 Concluding comments180
and reasoning149	Study Tools181
Moral development by stage151	Putting it together: Module I190
Neo-Kohlbergians151	
Strengths and limitations of the stage	
approach to moral development152	
Further perspectives on moral development154	
Emotional development157	



7		•
т.	lv	7
		74
	U	

## **Module II** The learning process

CHAPTER 5 Behavioural views of learning		196
Introduction197	Applying the A-B-C method	208
5.1 Behavioural explanations of	Understanding consequences	209
learning198	Reinforcement schedules	212
Contiguity198	Extinction and punishment	213
5.2 Classical conditioning199	Teaching new behaviours	217
Pavlov's approach199	Shaping, chaining, cueing, prompting and	
Watson and behaviourism201	modelling new behaviours	217
Strengths and limitations of classical	Task analysis	218
conditioning201	Maintenance and generalisation	
5.3 Operant conditioning203	of behaviour	218
Thorndike, trial-and-error learning	Applied behaviour analysis in school and	
and the law of effect204	classroom practice	219
Skinner and operant conditioning204	Strengths of behavioural approaches	222
Strengths of operant conditioning205	to learning Limitations of behavioural	222
Limitations of operant conditioning206	approaches to learning	222
5.4 Classroom applications of	•	
behaviourist views206	5.5 Concluding comments	
Antecedents and consequences of	Study Tools	224
behaviour207		
CHAPTER 6 Cognitive explanations of learnin	og.	228
Introduction	Strengths and limitations of the	220
	information-processing approach	255
6.1 Cognitive learning theories230	6.4 Bandura's social cognitive	233
6.2 Constructivism	theory	257
Forms of constructivism	Learning through observation	
Key principles of constructivism	Reciprocal determinism	
Constructivism in the classroom context232	Strengths of social cognitive theory	
Thinking critically about constructivist approaches238	Limitations of social cognitive theory	
	6.5 Learning styles and approaches	200
6.3 The information-processing approach242	to learning	262
Sensory memory and learning242	Cognitive styles	
Working memory and learning244	Learning styles	
Long-term memory and learning246	Critique of cognitive and learning styles	200
Metacognition: managing cognitive	approaches	265
processes247	Approaches to learning	
Further models of information	6.6 Concluding comments	
processing252	Study Tools	
Information processing and learning253	Study 10013	, 0
F 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
CHAPTER 7 Humanist approaches to learning		278
Introduction279	Maslow and the hierarchy of	
7.1 What is humanism?280	human needs	281
7.1 What is Humanism?	Rogers: non-directive teaching	
7.2 Humanism and psychology200	and 'freedom to learn'	284

7.3 Some examples of humanist models schools in Australia and New Zealan		Positive education	
7.4 Humanism and education	289	7.6 Thinking critically about humanist	
Humanist ideas in the curriculum	290	approaches	
7.5 Humanism in the classroom	291	7.7 Concluding comments	303
Student-directed learning	291	Study Tools	
Education for social and emotional		Putting it together: Module II	
learning and wellbeing	291		
	1		040
Module III Individual difference	e in the	inclusive classroom	312
<b>CHAPTER 8</b> Motivation and engagen			314
Introduction	315	Attribution theories	332
8.1 Defining motivation and engagemen	nt316	Goal theories of motivation	334
8.2 Key concepts in motivation	316	Summary of motivation theories	337
Traits and states	316	Strengths and limitations of motivation	
Anxiety and arousal	317	theories	338
Intrinsic and extrinsic motivation	317	8.4 Engagement in learning	339
Affect and interest	319	Why is engagement important?	341
8.3 Theoretical views of motivation	319	School factors that influence engagement	nt341
Behaviourist explanations	320	Classroom factors that influence	
Using extrinsic reinforcement and		engagement	343
motivation	320	Interest and engagement	344
Social-cognitive explanations	322	Social factors that influence	
Self-determination and human needs		engagement	346
explanations	324	8.5 Concluding comments	347
Cognitive explanations	326	Study Tools	348
CHAPTER 9 Intelligence and creativ	itv		256
Introduction			
9.1 What is intelligence?		intelligence tests	378
Cultural influences on intelligence		9.4 Ability and potential	
9.2 Models of intelligence		Concepts of giftedness and talent	
One thing or many?		Identifying gifted and talented learners .	
Is intelligence fixed or changeable?		9.5 Creativity	383
Is intelligence mainly influenced by		What is creativity?	
nature or nurture?	369	Models of creativity	
Strengths and limitations of models		Measuring creativity	
of intelligence	371	Development of creativity	
9.3 Measuring intelligence		Relationship between intelligence	
The Stanford–Binet test		and creativity	391
Wechsler's intelligence scales		9.6 Concluding comments	
Interpreting IO scores	374	Study Tools	303

Administering intelligence tests.......376



CHAPTER 10 Learning support needs and in	clusive education402	
Introduction404	Autism spectrum disorders (ASD)415	
10.1 Learner diversity and schooling404	Physical disabilities and chronic health	
Policies and legislation	conditions417	
School placements for learners with	Sensory and speech disabilities420 Mental health conditions422	
additional support needs406		
Prevalence of disability and learning	Learners with high abilities424	
support needs407	10.3 Teaching and diverse needs426	
Over-representation and discrimination407	Differentiation and universal design	
Concepts of disability408	pedagogies426	
10.2 Learning support needs in	Alternative schools429	
classroom settings410	10.4 Concluding comments430	
Intellectual and cognitive differences411	Study Tools432	
Specific learning disabilities412		
Attention deficit hyperactivity disorder		
(ADHD)414		
CHAPTER 11 Sociocultural factors in the lear	rning process436	
Introduction437	11.4 Threatening environments461	
11.1 Bronfenbrenner's bioecological	11.5 Socioeconomic status (SES)462	
model of development438	Social class and SES462	
Proximal processes	Poverty and education464	
Context	School factors468	
Person442	11.6 Inclusive education for Aboriginal	
11.2 Gender443	and Torres Strait Islander students in	
Gender differences444	Australia, and Māori students in	
Gender identity formation445	New Zealand470	
Gender and sexual diversity447	Aboriginal and Torres Strait Islanders:	
Gender issues in schools448	diversity and commonality470	
11.3 Ethnicity, language and culture452	What makes the difference to Aboriginal	
Language and culture453	and Torres Strait Islander students' success	
Culture and beliefs about knowledge	in school?471	
and learning453	Māori learners and New Zealand's	
Individualism and collectivism454	education system477	
Other sources of cultural difference and	Effective teaching for New Zealand Māori	
misunderstanding456	and Aboriginal and Torres Strait Islander communities481	
Addressing racism and prejudice456		
Culture, advantage and disadvantage458	11.7 Concluding comments	
Desistance 450	Study Tools482	

Putting it together: Module III ......492

Resistance......459

Multicultural education......460



# **Module IV** Educational psychology in contemporary classrooms

CHAPTER 12 Information and comm			106
Introduction		New ways of learning in mathematics	
12.1 ICT in learning and teaching	498	12.6 Transforming assessment	
12.2 Important issues in educational		Analysis and reporting of assessment	
ICT use		12.7 Transforming engagement	
Thinking critically about 'digital natives'		Transforming classroom management	
ICT literacy		Transforming approaches to motivation	
Information literacy and ICT literacy		12.8 Transforming student welfare	
12.3 ICT transforming learning		Identity and psychosocial development	
Changing patterns of cognitive skills?		Mental health	
Strengthening of neural pathways		Cyberbullying	
Building cognitive capacity		12.9 Transforming equity issues	
12.4 ICT transforming pedagogy		Access and use of ICT	530
ICT and theories of learning		Gender and ICT use	531
Cognitive theory of multimedia learning		12.10 Transforming inclusive education	532
Humanist learning theories and ICT	517	Strengths and limitations of using ICT	
Strengths and limitations of different		in the classroom	533
approaches to learning with ICT		12.11 Concluding comments	536
12.5 Transforming curriculum		Study Tools	537
New literacies	518		
CHAPTER 13 Assessment and reporti	ng		546
Introduction	548	Diagnostic assessment	561
13.1 What is assessment?	548	Strengths and limitations of different	
Purposes of assessment	548	assessment tools	563
13.2 Forms of assessment	550	13.5 Student-focused approaches to	
Assessment for learning	550	assessment	564
Assessment as learning	551	Conversations with students	
Assessment of learning	551	around learning	
13.3 Approaches to assessment	553	Self-assessment and peer assessment	
Traditional assessment	553	13.6 Ensuring quality in assessment	
Dynamic assessment	553	Reliability	
Authentic assessment	554	Validity	
Performance assessment	555	Alignment and the use of standards	
13.4 Assessment tools	556	Using rubrics to provide transparency	
Observing students	556	Moderation	
Anecdotal records	558	13.7 Use of assessment data	
Checklists	559	Interpreting assessment information	573
Student work	559	Strengths and limitations of	
Portfolios		norm-referenced, criterion-referenced,	
Rating scales		curriculum-based and ipsative assessment	E70
Testing		procedures	5/6
Standardised assessments		13.8 Reporting the results of	<b>_</b>
		assessment	5//



494

Reporting to students578	Reporting to employers58
Reporting to parents579	Reporting to government58
Reporting for teachers583	Reporting to the community58
Reporting for school psychologists,	13.9 Recording and reporting
counsellors and guidance officers584	assessment results580
Reporting to schools and school	13.10 Concluding comments58
administrators584	Study Tools588
<b>CHAPTER 14</b> Creating a positive classroom	594
Introduction595	Promoting self-regulation and social skills614
14.1 Defining positive learning	Intervening to address classroom
environments596	behaviours61
Defining classroom management596	14.3 School-wide issues and
14.2 Creating a positive classroom597	approaches62!
Development of supportive and caring	Creating safe schools625
relationships598	Responding to bullying in schools620
Organising and implementing instruction	Summary of approaches to bullying632
to support learning604	14.4 Concluding comments633
Group management for facilitating	Study Tools633
engagement610	Putting it together: Module IV640
Indox	64



# **About the Authors**

**DR SUE DUCHESNE** is lecturer in the School of Education at the University of Wollongong and coordinates the Master of Teaching at the University of Wollongong's Bega Campus. She has experience teaching in primary and secondary schools, as well as in the tertiary sector, and currently lectures in educational psychology, child development and pedagogy. Sue's research interests include engagement in language classrooms, student support and teacher education, with a particular interest in pre-service teacher development.

**DR ANNE MCMAUGH** is a senior lecturer in the School of Education at Macquarie University. Anne teaches in child development and educational psychology, with a focus on childhood social development. Her research interests encompass child and adolescent education and development, with a special interest in the developmental and educational experiences of children and adolescents with disability and chronic health conditions. Anne has teaching experience in primary and secondary schools, as well as in the tertiary sector, and has conducted research in school, hospital and community education settings.

**DR ERIN MACKENZIE** is a lecturer and Director of Postgraduate Specialist Studies in the School of Education at Western Sydney University. She has experience teaching in secondary schools and university settings, and lectures in educational psychology, secondary science pedagogy and STEM education. Erin's research interests include adolescent online interactions, coping, and the role of psychological and social factors in adolescents' participation in STEM.

# **Acknowledgements**

This book is the result of the combined efforts, energies and encouragement of many of our colleagues, students, friends and family. We thank the team at Cengage Learning Australia who have supported us in the development of this seventh edition. Fiona Hammond, Eleanor Yeoell and Sutha Surenddar have all been involved in our discussions about text design, photographs and text support materials.

Our colleagues and students in teacher education at the University of Wollongong, Western Sydney University and at Macquarie University have contributed to our understanding of the field and have continual input into our thinking about educational psychology and how it can be taught.

We have consulted various classroom teacher colleagues, whose practical classroom experience has made an important contribution to our text. In particular, we would like to thank the following teachers who have provided ideas and content for the text and its supplements:

- · Chrisanthi McManus Mumbulla School for Steiner Education
- Gabbie Stroud
- Tracey Hughes-Butters Lumen Christi Catholic College
- Ann-Louise Clark Sapphire Coast Anglican College
- · Alyson Whiteoak Jervis Bay Public School
- Rachael Seal Loftus Public School
- · Ursula Brown
- Anne Warburton
- · Cheryl Russell.

Our thanks go to the children who have contributed ideas, images and content to the text: Natalie, Jake, Jesse, Etienne, Odette, Katie, Kirsty, Jed, Tully, Nicole, Hannah, Hannah, Kai, Henry and Pete. A special thank you to our families who have provided constant support, good humour and encouragement along the way.

Sue Duchesne Anne McMaugh Erin Mackenzie

Cengage Learning and the authors would like to thank the following reviewers for their incisive and helpful feedback:

- Cindy Smith Curtin University
- Gemma Scarparolo The University of Western Australia
- A. Prof. Joseph Zajda Australian Catholic University
- Dr Lesley-Anne Ey University of South Australia
- Elizabeth Preston University of Newcastle
- Loraine McKay Griffith University
- Slava Kalyuga University of New South Wales
- Natasha Ziebell University of Melbourne
- Tracey-Ann Palmer University of Technology Sydney
- Dr Donella Cobb The University of Waikato
- Elly Kalenjuk Melbourne Polytechnic
- Katherine Main Griffith University

We would also like to extend our thanks to the reviewers and contributors for providing their expertise and feedback on all previous editions of this text.

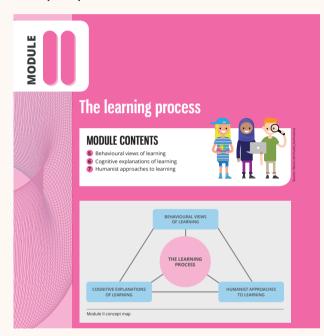
Every attempt has been made to trace and acknowledge copyright holders. Where the attempt has been unsuccessful, the publishers welcome information that would redress the situation.

# Guide to the text

As you read this text you will find a number of features in every chapter to enhance your study of educational psychology and help you understand how the theory is applied in the real world.

#### **MODULE OPENING FEATURES**

Understand how key concepts are connected across all chapters in the module by viewing the **Concept map**.



**Core questions** introduce key themes in the module and give an overview of how the chapters in the module relate to each other.



#### **END-OF-MODULE FEATURES**

At the end of each module, you will find the **Putting it together** section that demonstrates how the key theories in the module answer the Core question through a **Summary** and **Module table**.



#### **CHAPTER OPENING FEATURES**

Understand how key concepts in the chapter relate to each other by viewing the chapter **Concept maps**.

Motivation and engagement

Traits and states Affect and interest Annety and interest extraction.

MOTIVATION ENGAGEMENT IN LEARNING

Social Classroom factors factors factors

THEORES OF MOTIVATION

Behavioural explanations

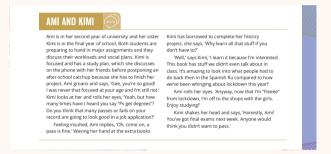
Social cognitive explanations

Cognitive explanations

Identify the key concepts you will engage with through the **Key questions** at the start of each chapter.



Gain an insight into how educational psychology theories relate to the real world through the **Scenario** at the beginning of each chapter.



#### **FEATURES WITHIN CHAPTERS**

#### **RESEARCH LINKS 8.1**

#### A growth mindset intervention: 'directly telling' versus 'explaining to others'

Mindset researchers David Yeager and colleagues (2016) were interested in the types of lessons and messages conveyed in mindset interventions. One of the things they wanted to test was whether *directly* telling students the research findings about the developing brain was more effective than if students had to explain and tell these research findings to other students (*indirectly* learning the concepts). They compared these different types of interventions in a classic A/B experimental design where condition A is compared to condition B. They tested these research problems among a very large sample of Year 9 students (N = 3005).

#### The research question

Is it more effective to deliver growth mindset information directly or indirectly to students?

'Students often do a great job explaining ideas to their peers because they see the world in similar ways. On the following pages, you will read some scientific findings about the human brain ... We would like your help to explain this information in more personal ways that students will be able to understand. We'll use what we learn to help us improve the way we talk about these ideas with students in the future.'

#### The results

The researchers found that directly telling students about the scientific findings (Group A) led to smaller changes in mindsets compared to the 'explaining to others' intervention (Group B). This means that directly

Examine important and current research in teaching and learning in specific studies highlighted in the **Research Links** boxes.

#### **CASE STUDY 7.1**

#### The class forum

The idea of conducting a class forum in which all participants – teacher, aides and students alike – have equal say may strike some teachers as too challenging for primary school-aged children, or even as a practice that could, potentially, undermine the teacher's authority in the classroom. One teacher, however, who works in a small, rural school in NSW, believes her weekly classroom forum is a cohesive practice that promotes ownership of classroom behaviour and culture, and provides an opportunity for students to cultivate higher-order thinking and communication skills.

At these forums, participants have the chance to discuss their respective school and classroom experiences. They may choose to air concerns about problems or acknowledge positive developments. At the outset of each forum, the teacher reminds participants that they must raise their hands to speak. Although the teacher plays

had genuinely heard and understood him, and by indicating that she appreciated his feeling of frustration. Significantly, and as a result of the teacher's skilful facilitation of the forum, what was then discussed was not the specific content of the boy's actions and why they warranted reprimands, but what he might be doing to bring about this situation; for example, other students suggested that perhaps he needed to listen more carefully to the teacher's instructions. The upshot of this discussion was that the student concerned was encouraged by his fellow forum participants to reflect on his own behaviour, and that the teacher gained an insight into how frequent reprimands were making this student feel about being in the classroom.

At another forum, a student commented that the incidence of disruptive behaviour in the classroom had decreased and that the class was achieving more as

Analyse in-depth **Case studies** that present issues in context, encouraging you to integrate the concepts discussed in the chapter and apply them within Australian and New Zealand classroom settings.

#### **FEATURES WITHIN CHAPTERS**

Consider the implications of theory on classroom practitioners with learning and teaching examples in the **Implications for Educators** boxes.

Connect theory to practice via examples of research or applications of theory in classroom settings in the **Classroom links** 

**Think about...** panels encourage you to reflect critically on important concepts and your beliefs about the processes of learning and teaching as you progress through each chapter.

Important **Key terms** are marked in bold in the text and **defined in the margin** when they are used for the first time.

**Go Further** icons in the chapters indicate that extra resources are available. Ask your instructor for the Go Further resources and deepen your understanding of the topic.

#### **IMPLICATIONS FOR EDUCATORS 7.5**

#### Humanism in the classroom

The key elements of humanist education in classroom practice

- concern for student wellbeing alongside content and cognitive needs
- an emphasis on experience-based instruction or "learning by doing" – building on students" interests and experiences, and involving them in mental and physical activity (see CHAPTERS 3 and 6)
- support for student autonomy through studentdirected learning (see also CHAPTER 6)
- development of social and emotional learning
- concern with students' thinking, feelings and communication skills, together with respect for their needs and talents
- encouragement for students to develop personal values and self-awareness (see CHAPTER 4)
- provision of a stimulating environment to actively involve students in learning, giving them 'freedom to learn'
- provision of progressive education, as exemplified in the programs of A. S. Neill, Rudolf Steiner, Maria

shared and each group member is responsible for completing a task and for ensuring that others in the group complete their tasks

- face-to-face facilitative interaction students aid group success by listening to and helping one another, by sharing information and resources, by resolving differences, by giving feedback, and by encouraging and motivating one another to participate fully and to achieve shared goals (Johnson & Johnson, 2017)
- individual accountability and personal responsibility the assessment results of each student's work are reported to both the student and the group as a whole – 'students learn together and then perform alone' (Johnson et al., 1994, p. 31) – with each member of the group contributing a 'fair share' to the task
- interpersonal and small-group skills students learn academic subject matter and small-group social skills in order to function effectively within a team – getting to know the others in their group, learning to trust them, communicating clearly with them,

#### **CLASSROOM LINKS 8.1**

#### How does anxiety affect learners?

Many children experience anxiety or fearfulness from time to time. Most children learn to cope with normal fears, but teachers and parents should be alert to the following symptoms that may indicate a child or student needs help:

- The child or student feels more anxious than other children of their age or other learners at their level.
- Their anxiety stops them participating in normal learning or social activities at school or in other social contexts.
- These anxious feelings are consistently very intense.
- They may persist for some time after the event has passed.

- Students show perfectionistic tendencies, such as wanting their work to be perfect, and are dissatisfied with work to the extent that they may become anxious
- The student is reluctant to ask for help, may avoid.
- They have problems joining in with other students or joining in class work.

#### How can teachers help?

Teachers are not expected to diagnose a mental health issue—this is not your role—but you may be able to notice the symptoms and behaviours and seek help and support the young person. The following principles can guide your approach to helping children with anxiety discorders:

- Social and emotional learning programs (see CHAPTER 4) can help all children develop coping strategies and support capacity to be resilient.
- Assist children to develop 'emotional language (see CHAPTER 4) so they can describe their thoughts and feelings.
- Help students learn to recognise their own internal cues or warning signs that they may be becoming anxious.
- Make changes and transitions in the classroom explicit with warning ahead of time.
- Make learning goals achievable by breaking tasks down into smaller steps; set small goals first, especially for tasks like presenting or speaking in public (see more in CHAPTER 4).
- Encourage the student to have a go and try new things.

#### THINK ABOUT

A group of teacher education students have prepared a slide presentation for their classmates on the topic of 'Reinforcement'. On the first slide they define positive and negative reinforcement with the following two dot points:

#### Reinforcement

- An example of positive reinforcement is when the teacher gives a prize for the best essay.
- An example of negative reinforcement is when a student walks into class late and the teacher sends them to the school office, saying they can't come into the classroom.
- 1 Can you identify the error in the students' presentation above?
- 2 Can you identify any problems in the assumptions the students might have made in their choice of 'reinforcers'?

### 1.1 What is educational psychology?

Some students ask: 'Why not just simplify and call it <code>psychology</code>?' The reason is that <code>educational psychology</code> is a discipline in its own right, and connects the disciplines of education and psychology (Walberg & Haertel, 1992). It involves not only scientific research on the various dimensions of learning and teaching, but also the investigation of ways to apply psychological principles to educational contexts with the aim of enhancing learning and teaching quality.

#### psychology A branch of psychology concerned with studying how people learn and the implications for

educational

teaching

FURTHER
Appendix 1.1
Research report



#### **END-OF-CHAPTER FEATURES**

At the end of each chapter you will find several tools to help you to review, practise and extend your knowledge of the key learning objectives.

#### STUDY TOOLS

#### **Chapter review**

#### 1.1 What is educational psychology?

- Educational psychology is the application of psychological principles to the study of learning and teaching.
- Studying educational psychology can contribute to your understanding of yourself as a learner and teacher, of your students, and of the learning and teaching processes themselves.
- Understanding learners and the learning process contributes to effective learning and teaching.
- Effective teaching is linked to making effective choices, and educational psychology can help to guide teachers in both making and evaluating their choices.

#### 1.2 Introducing reflective teaching

Educational psychology informs and deepens reflection on teaching practice.

#### 1.3 Reflecting on your teaching practice

- Tools for critical reflection include reflective journals, portfolios, mentors and observation.
- Developing a personal philosophy of learning and teaching can guide choices; provide insights into your own behaviours, thoughts and feelings; and reveal implicit knowledge and theories you bring to your practice.

#### 1.4 Using research as a reflective teacher

Using existing research can inform practice, provide new ideas for teaching, evaluate choices and make sense of
experiences.

#### 1.5 Conducting research as a reflective teacher

- Conducting research involves asking questions and seeking answers to those questions. Methods include experiment, interview, questionnaire, observation, document analysis and case study.
- Research quality is determined by validity and reliability, as well as ethical considerations, such as confidentiality, informed consent and voluntary participation.
- Action research links reflection about teaching to research. It involves a cycle of reflection, planning and action.

Review your understanding of the key chapter topics with the **Chapter review**.

#### **Putting it together**

Making links between 'educational psychology for learning and teaching' and material in other chapters.



The visual **Putting it together** section illustrates the ways that material in the chapter is related to other chapters.

#### Questions and activities for self-assessment and discussion

- Draw a concept map to show how understanding learners and learning processes can contribute to effective learning and teaching. You could add to this as you read further chapters.
- ${\bf 2} \quad \text{List some ways in which educational psychology can guide teacher reflection}.$
- 3 Identify strategies teachers can employ to reflect on their teaching and students' learning.
- 4 Name some research methods teachers can use in their work. What benefits could this have for students' learning and for your teaching?
- 5 What makes for quality research? What issues should be considered?
- 6 Reflect on your past experience (if any) as a participant in a research study.
  - a  $\;\;$  How were you informed of the purposes of the research and your role in it?
- b How was your voluntary consent obtained?

Test your knowledge and consolidate your learning through the **Questions** and activities for self-assessment and discussion.

# Guide to the online resources

#### **FOR THE INSTRUCTOR**

Cengage is pleased to provide you with a selection of resources that will help you prepare your lectures and assessments. These teaching tools are accessible via au.cengage.com/instructor/account for Australia or nz.cengage.com/instructor/account for New Zealand.

#### **MINDTAP**

Premium online teaching and learning tools are available on the MindTap platform – the personalised eLearning solution.

MindTap is a flexible and easy-to-use platform that helps build student confidence and gives you a clear picture of their progress. We partner with you to ease the transition to digital – we're with you every step of the way.

The Cengage Mobile App puts your course directly into students' hands with course materials available on their smartphone or tablet. Students can read on the go, complete practice quizzes or participate in interactive real-time activities.

MindTap for Duchesne's Educational Psychology is full of innovative resources to support critical thinking, and help your students move from memorisation to mastery! Includes:

- Educational Psychology 7th edition eBook
- Classroom videos
- Professional learning scenario activities, Go Further and Develop Your Philosophy activity sheets

MindTap is a premium purchasable eLearning tool. Contact your Cengage learning consultant to find out how MindTap can transform your course.



#### **INSTRUCTOR'S GUIDE**

The Instructor's guide includes:

- Learning objectives
- Chapter overview and key topics

- Additional video discussion questions
- Useful websites, and more.

#### COGNERO® TEST BANK

A **bank of questions** has been developed in conjunction with the text for creating quizzes, tests and exams for your students. Create multiple test versions in an instant and deliver tests from your LMS, your classroom, or wherever you want using **Cognero**. Cognero test generator is a flexible online system that allows you to import, edit, and manipulate content from the text's test bank or elsewhere, including your own favourite test questions.

#### POWERPOINT™ PRESENTATIONS

Use the chapter-by-chapter **PowerPoint slides** to enhance your lecture presentations and handouts by reinforcing the key principles of your subject.

#### **CLASSROOM VIDEOS**

This series of **Classroom videos** provides relevant and engaging visual teaching demonstrations for instructors to illustrate in class the concepts covered in Educational Psychology. These visual resources are available to instructors prescribing the text.

#### ARTWORK FROM THE TEXT

Add the **digital files** of graphs, tables, pictures and flow charts into your learning management system, use them in student handouts, or copy them into your lecture presentations.

#### **FOR THE STUDENT**

#### **MINDTAP**

MindTap is the next-level online learning tool that helps you get better grades!

MindTap gives you the resources you need to study – all in one place and available when you need them. In the MindTap Reader, you can make notes, highlight text and even find a definition directly from the page.

If your instructor has chosen MindTap for your subject this semester, log in to MindTap to:

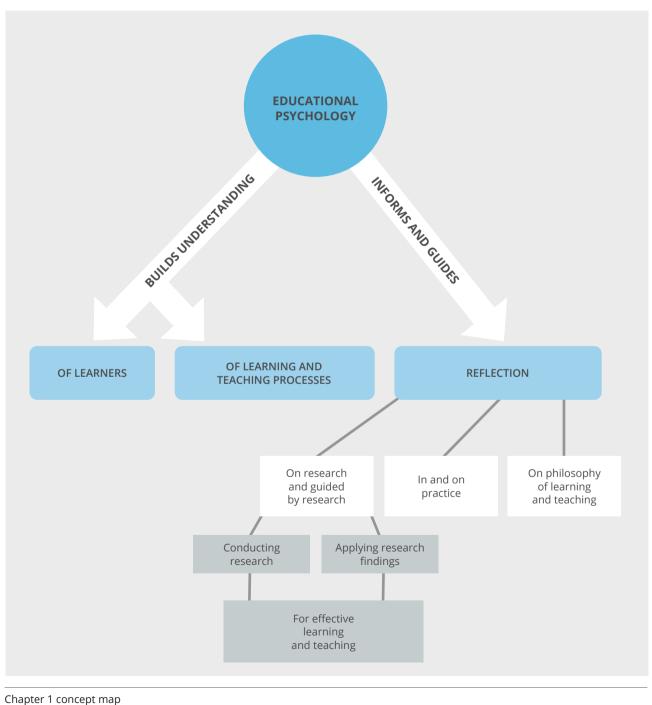
- Get better grades
- · Save time and get organised
- · Connect with your instructor and peers
- Study when and where you want, online and mobile
- Complete assessment tasks as set by your instructor

When your instructor creates a course using MindTap, they will let you know your course link so you can access the content. Please purchase MindTap only when directed by your instructor. Course length is set by your instructor.



**CHAPTER** 

# **Educational psychology** for learning and teaching



### **KEY QUESTIONS**

After reading this chapter, you should be able to answer the following key questions:

- What is the purpose of educational psychology?
- How can educational psychology help me to understand and improve learning (my own and others')?
- How can educational psychology contribute to my development as a teacher?
- What role does research play in reflection and teaching?
- What is the role of reflection in teaching, and which tools will help?
- How can I use these reflective tools in quality ways to enhance my teaching?

### SOPHIE, TED AND KIRSTY



Sophie, Ted and Kirsty have finished their final school exams and are talking about their plans for university in the coming year. Ted says, 'Have you looked at your subjects? I've got one called "educational psychology" – I'm looking forward to the practical teaching subjects, not so sure how I feel about studying psychology though.'

'Oh, I think my Mum did that in her teaching degree', offered Kirsty. 'She said it was all about teaching really, and understanding kids helped her to teach them.'

'I'm doing a subject like that too in my psychology degree', said Sophie. 'I'm hoping it will help me work with kids as a psychologist.'

# Introduction

For many students using this book, the field of educational psychology – or 'ed psych', as you may soon call it – will represent uncharted waters. You may have chosen this area because you have always been interested in psychology, or perhaps you are studying to be a teacher and educational psychology is a compulsory subject. We hope that whatever your reason for using this text, it will help you to develop your understanding and thinking about learning and teaching.

In this chapter, we explore the broad topic of educational psychology, and why it is of use to teachers.

# 1.1 What is educational psychology?

Some students ask: 'Why not just simplify and call it *psychology*?' The reason is that **educational psychology** is a discipline in its own right, and connects the disciplines of education and psychology (Walberg & Haertel, 1992). It involves not only scientific research on the various dimensions of learning and teaching, but also the investigation of ways to apply psychological principles to educational contexts with the aim of enhancing learning and teaching quality.

### educational psychology

A branch of psychology concerned with studying how people learn and the implications for teaching One of the things students enjoy most about this subject is that by studying theories of learning and development they learn a lot about their own development and what influences their learning. A number of the effective teaching practices you experienced at school could be traced back to some element of educational psychology. As you read this book, you will begin to understand your own learning processes and how to improve them. You will also be challenged to think about ways in which teaching could be improved to cater for student differences and particular student needs.

## Who studies educational psychology?

The discipline of educational psychology can be applied in many contexts. You may have taken up this book because you plan to be a teacher and must study educational psychology as a foundation unit. Other readers may be psychology students who are interested in working with children or adolescents, whether in professional practice or as a counsellor in a school setting. Others may be preparing to be educational psychologists – qualified psychologists who specialise in applying their expertise in educational contexts, and who work in schools or other institutional settings (e.g. university, government or corporate settings) where education takes place. Still others may be reading this text to better understand their own learning and the education process.

We recognise that the majority of this book's readers will be planning a teaching or related career. For this reason, our examples focus on early childhood, school-aged children and youth.

### Why study all these theories?

It is true that when you first start studying educational psychology, you are introduced to many theories. Some educational psychology students have been heard to say: 'Ed psych is just a lot of theory ... I came to uni to learn how to teach kids!' Our advice to you is to not lose heart and to remember that theories have an important purpose.

You will discover that theories form the foundation for understanding many critical issues that face learners and educators in the 21st century. Throughout this book, and particularly in the first half, we link theory to practice and encourage you to do the same. You will find that theories help us answer questions such as: What are the best ways of studying? How can I improve motivation – both mine and others'? Why do some young people give up on themselves and what can I do about it? How can technology be used to enhance learning? Is education redundant in the information age?

Educational psychology and the theories of development and learning covered in this text will:

- · help you understand your own development and factors that have contributed to it
- provide strategies to enhance the quality of your learning and motivation
- guide your understanding of how learners learn and how educators can become more effective in their teaching practice
- contribute to your personal philosophy of learning and teaching.

### Interactions between learning and teaching

Teaching is visible. Learning itself is largely invisible, although its outcomes – in students' work, their questions and answers – are seen and may be measured by teachers as an indication of learning. Nonetheless, if learning does not occur, then teaching cannot be said to have occurred either; the two are tightly bound components of the work of a teacher and their partners – the learners. Consider this in your own experience: you may have sat in a lecture in which the lecturer was explaining some complex idea (perhaps it was learning!). If you were thinking about something else, did not understand them, or already knew about what they were talking about, then you probably walked out of the lecture having learnt nothing, although the person alongside you may have outwardly behaved similarly to you, and yet learnt a great deal. Did the lecturer

teach you anything during that hour? Teaching involves much more than simply delivering information; what was happening within you, the learner, was just as important as what the lecturer was doing. Understanding learning then, and the various processes that occur within learners, is important for both learners and teachers. Educational psychology provides us with research findings and theories that are built from that research and can help us to develop that understanding for ourselves as learners and teachers.

### **Understanding learners**

As we saw in the previous example, learning happens within learners – it involves change. Rather than learning being something that simply happens to learners, they are actively involved in the process. You may read or hear about 'passive learning' to describe reading, observing or listening, in contrast to 'active learning' in which students discuss or create, but in fact this is a misnomer. The internal cognitive processes that occur in learning are active, including thinking, making connections between new and old information in memory, making sense of new experience and constructing new understandings (see **CHAPTER 6** for more on these processes). Emotional processes also occur, each of which influence learning; for example, interest, boredom, frustration or excitement. Therefore, 'passive' or 'active' in regard to learning is referring to the behaviours that prompt that thinking rather than to the learning itself. In **CHAPTER 2** we will see that current theories of development recognise the individual as active in their development as well as their learning. It is therefore important to understand the individual learners we teach and how their prior experience, skills, knowledge and attitudes influence their learning.

Each individual learner brings a unique set of experiences to their learning, and these experiences may differ for each new learning situation they encounter (see FIGURE 1.1). Pre-existing knowledge interacts with new material learnt to support or interfere with learning. Work on information processing (CHAPTER 6) suggests teachers can activate this prior knowledge, prepare for misconceptions held and organise new information in helpful ways to connect with what is already known. Similarly, pre-existing attitudes arising from previous experiences affect learning behaviour. Work on motivation and engagement (CHAPTER 8) can help us to recognise, understand and prevent or respond to these attitudes in ways that support learning. And pre-existing skills – cognitive, social and emotional (CHAPTER 7) – may be drawn on in the learning

situation. In each case, what the learner brings to the learning interacts with what is being taught. We need to understand individual learners to effectively teach them and support their learning.

Educational psychology can help us in this endeavour. For example, you may think that praising a learner's ability would help to motivate them to keep going with a difficult task. However, educational psychology research shows that when learners are praised for their ability, they make *less* effort in learning; whereas praising a learner for the effort they have made promotes greater effort in the current task, prompts them to persist when faced with difficulty, and helps them to develop a 'growth mindset' – believing their ability is not fixed but changeable (for a summary of this research, see Haimovitz & Dweck, 2017). You can read more about motivating students in **CHAPTER 8**.

Many more examples of educational psychology's contribution to learning and teaching are found throughout this book. Module I describes the



**FIGURE 1.1** Each learner brings a set of prior experiences, knowledge, attitudes and skills that influence learning. Educational psychology can assist you to work with these to support your students' learning

Shutterstock.com/Rawpixel.com

development of individuals, and can assist you to support that development as it influences and interacts with learning. Module III explores individual differences that influence learning in various ways, and may help you to support the varied learners in your classrooms.

### **Understanding learning processes**

We referred above to cognitive, emotional and social processes that are involved in learning. Understanding these processes can assist teachers in working with students to maximise their learning. Learners' awareness of their learning processes is a form of metacognition (thinking about thinking – explained further in **CHAPTERS 3** and **6**), which contributes to learning itself (Donker et al., 2014). Learners can set, monitor and evaluate goals for their learning; and teachers can provide feedback related to the learning process that provides learners with knowledge and strategies to help them to move forward in their learning.

#### **Emotional processes**

Emotional processes involved in learning relate to motivation and engagement, discussed in **CHAPTER 8**. For example, research has shown that learners' expectancy of success (an aspect of self-concept) and the value they have for a task or subject, including their interest, work together to multiply the effect of either one on learning and on decisions to study a particular subject (Guo et al., 2015).

#### Social processes

Social processes include both relationships between teachers and learners as they work together to achieve learning goals; and relationships between peers, which themselves can influence learning directly by peers teaching one another, and indirectly by observing and being influenced by peer behaviours and attitudes. Researchers in educational psychology have found both positive and negative effects of peers on learning (Mentzel & Ramani, 2017). Awareness of these influences and how they operate can assist learners and teachers in choosing effective approaches to learning.

#### Additional theoretical approaches

Further examples of the application of theory and research to learning and teaching are found in Module II, which explores learning processes from the viewpoint of three different theoretical approaches: the behavioural, cognitive and humanist approaches to learning. Each has a different focus, and thus provides understanding of a different piece of the learning puzzle. The 'putting it together' summary table at the end of **CHAPTER 7** provides an overview of how the three approaches differ and each contribute to our understanding of the learning process.

#### THINK ABOUT

What are the implications for teaching in this information about learners and learning?

## **Changes in the education landscape**

In the past decade, Australia has experienced major changes in policy and curriculum relating to schools and teaching, with the introduction of the Early Years Learning Framework (EYLF) in 2009, the *Australian professional standards for teachers* in 2011 and the Australian Curriculum in 2012. New Zealand also underwent changes to its assessment framework in 2011, and an expansion of Ka Hikitia, the Māori education strategy, into a third phase in 2018. You will find references to all of these documents in this edition of the text. Here, we consider how your study of educational psychology using this text might contribute to your development of knowledge towards the relevant teacher standards.

Educational psychology will contribute towards a number of elements of your professional knowledge, professional practice and professional engagement. **TABLE 1.1** provides an overview.

**TABLE 1.1** Teaching standards and this text

Chapter	Elements from the Australian professional standards for teachers	Elements from Standards for the Teaching Profession, Ngā Paerewa
Chapter 1	6 Engage in professional learning 6.4 Apply professional learning and improve student learning Demonstrate an understanding of the rationale for continued professional learning and the implications for improved student learning	Professional learning: Use inquiry, collaborative problem-solving and professional learning to improve professional capability to impact on the learning and achievement of all learners  Inquire into and reflect on the effectiveness of practice in an ongoing way, using evidence from a range of sources
Module I: Chapters 2, 3 and 4	1.1 Physical, social and intellectual development and characteristics of students  Demonstrate knowledge and understanding of physical, social and intellectual development and characteristics of students and how these may affect learning	Design for learning: Design learning based on curriculum and pedagogical knowledge, assessment information and an understanding of each learner's strengths, interests, needs, identities, languages and cultures  Select teaching approaches, resources, and learning and assessment activities based on a thorough knowledge of curriculum content, pedagogy, progressions in learning and the learners
Module II: Chapters 5, 6 and 7	1.2 Understand how students learn  Demonstrate knowledge and understanding of research into how students learn and the implications for teaching  3 Plan for and implement effective teaching and learning  3.2 Plan, structure and sequence learning programs  Plan lesson sequences using knowledge of student learning, content and effective teaching strategies  3.3 Use teaching strategies  Include a range of teaching strategies	Design for learning: Design learning based on curriculum and pedagogical knowledge, assessment information and an understanding of each learner's strengths, interests, needs, identities, languages and cultures  Select teaching approaches, resources, and learning and assessment activities based on a thorough knowledge of curriculum content, pedagogy, progressions in learning and the learners  Teaching: Teach and respond to learners in a knowledgeable and adaptive way to progress their learning at an appropriate depth and pace  Use an increasing repertoire of teaching strategies, approaches, learning activities, technologies and assessment for learning strategies and modify these in response to the needs of individuals and groups of learners  Provide opportunities and support for learners to engage with, practise and apply learning to different contexts and make connections with prior learning  Teach in ways that enable learners to learn from one another, to collaborate, to self-regulate and to develop agency over their learning
Module III: Chapters 8, 9, 10 and 11	4.1 Support student participation Identify strategies to support inclusive student participation and engagement in classroom activities	<b>Learning-focused culture:</b> Develop a culture that is focused on learning, and is characterised by respect, inclusion, empathy, collaboration and safety

Chapter	Elements from the Australian professional standards for teachers	Elements from Standards for the Teaching Profession, Ngā Paerewa
Module III: Chapters 9 and 10	1.5 Differentiate teaching to meet the specific learning needs of students across the full range of abilities	<b>Learning-focused culture:</b> Develop a culture that is focused on learning, and is characterised by respect, inclusion, empathy, collaboration and safety
	Demonstrate knowledge and understanding of strategies for differentiating teaching to meet the specific learning needs of students across the full range of abilities  1.6 Strategies to support full participation of students with disability  Demonstrate broad knowledge and understanding of legislative requirements and	Demonstrate high expectations for the learning outcomes of all learners, including for those learners with disabilities or learning support needs  Manage the learning setting to ensure access to learning for all and to maximise learners' physical, social, cultural and emotional safety  Create an environment where learners can be confident in their identities, languages, cultures and abilities
	teaching strategies that support participation and learning of students with disability	Develop an environment where the diversity and uniqueness of all learners are accepted and valued
Module III: Chapter 11	1.3 Students with diverse linguistic, cultural, religious and socioeconomic backgrounds  Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socioeconomic backgrounds  1.4 Strategies for teaching Aboriginal and Torres Strait Islander students  Demonstrate broad knowledge and understanding of the impact of culture, cultural identity and linguistic background on the education of students from Aboriginal and Torres Strait Islander backgrounds	Design for learning: Design learning based on curriculum and pedagogical knowledge, assessment information and an understanding of each learner's strengths, interests, needs, identities, languages and cultures  Design and plan culturally responsive, evidence-based approaches that reflect the local community and Te Tiriti o Waitangi partnership in New Zealand  Harness the rich capital that learners bring by providing culturally responsive and engaging contexts for learners  Te Tiriti o Waitangi partnership: Demonstrate commitment to tangata whenuatanga and Te Tiriti o Waitangi partnership in Aotearoa New Zealand  Learning focused culture: Create an environment where learners can be confident in their identities, languages, cultures and abilities  Develop an environment where the diversity and uniqueness of all learners are accepted and valued
Module IV: Chapter 12	2.6 Information and communication technology (ICT) Implement teaching strategies for using ICT to expand curriculum learning opportunities for students 3.4 Select and use resources Demonstrate knowledge of a range of resources, including ICT, that engage students in their learning 4.5 Use ICT safely, responsibly and ethically Demonstrate an understanding of the relevant issues and the strategies available to support the safe, responsible and ethical use of ICT in learning and teaching	Teaching: Teach and respond to learners in a knowledgeable and adaptive way to progress their learning at an appropriate depth and pace  Use an increasing repertoire of teaching strategies, approaches, learning activities, technologies and assessment for learning strategies and modify these in response to the needs of individuals and groups of learners

Chapter	Elements from the Australian professional	Elements from Standards for the Teaching
	standards for teachers	Profession, Ngā Paerewa
Module IV: Chapter 13	5 Assess, provide feedback and report on student learning 5.1 Assess student learning Demonstrate an understanding of assessment strategies, including informal and formal, diagnostic, formative and summative approaches to assess student learning 5.2 Provide feedback to students on their learning Demonstrate an understanding of the purpose of providing timely and appropriate feedback to students about their learning 5.3 Make consistent and comparable judgements Demonstrate an understanding of assessment moderation and its application to support consistent and comparable judgements of student learning 5.4 Interpret student data Demonstrate the capacity to interpret student assessment data to evaluate student learning and modify teaching practice 5.5 Report on student achievement Demonstrate an understanding of a range of strategies for reporting to students and parents/carers and the purpose of keeping accurate and reliable records of student achievement	Professional relationships: Establish and maintain professional relationships and behaviours focused on the learning and wellbeing of each learner  Communicate clear and accurate assessment for learning and achievement information  Teaching: Teach and respond to learners in a knowledgeable and adaptive way to progress their learning at an appropriate depth and pace  Ensure learners receive ongoing feedback and assessment information and support them to use this information to guide further learning  Design for learning: Design learning based on curriculum and pedagogical knowledge, assessment information and an understanding of each learner's strengths, interests, needs, identities, languages and cultures  Gather, analyse and use appropriate assessment information, identifying progress and needs of learners to design clear next steps in learning and to identify additional supports or adaptations that may be required
Module IV: Chapter 14	4 Create and maintain supportive and safe learning environments  4.2 Manage classroom activities  Demonstrate the capacity to organise classroom activities and provide clear directions  4.3 Manage challenging behaviour  Demonstrate knowledge of practical approaches to manage challenging behaviour  4.4 Maintain student safety  Describe strategies that support students' wellbeing and safety working within school and/or system, curriculum and legislative requirements	Learning-focused culture: Develop a culture that is focused on learning, and is characterised by respect, inclusion, empathy, collaboration and safety  Develop learning-focused relationships with learners, enabling them to be active participants in the process of learning, sharing ownership and responsibility for learning  Foster trust, respect and cooperation with and among learners so that they experience an environment in which it is safe to take risks  Manage the learning setting to ensure access to learning for all and to maximise learners' physical, social, cultural and emotional safety

Sources: © Education Services Australia (ESA) (2015). ESA is the legal entity for the Standing Council on School Education and Early Childhood (SCSEEC).

The Australian Professional Standards for Teachers were developed by the Australian Institute for Teaching and School Leadership (AITSL).

This extract has been used with permission from ESA and AITSL