



16th Annual  
Hawker Brownlow  
**Thinking &  
Learning**  
Conference

*the teacher's conference*

**ADRIAN BERTOLINI**

**THURSDAY 16 MAY**

**Session 3**

**STEM & STEAM:**

**Practical Steps in STEM and Design Thinking**

**MELBOURNE**



[www.hbconf.com.au](http://www.hbconf.com.au)



[conferences@hbe.com.au](mailto:conferences@hbe.com.au)

# ADRIAN BERTOLINI

Dr Adrian Bertolini is the founder and Director of Learning of Intuyu Consulting – an educational consultancy that works with teachers and schools to unleash learning. His journey began as a curious kid growing up in Dandenong and led him to being an engineer and Senior Lecturer in Aerospace Engineering at RMIT University. His career has taken him around the world, including spending time in the USA exploring leadership in innovative tech companies, and empowering students through the Are You Making a Difference program. Adrian has a strong background in both the practical application and theoretical underpinning of STEM and coding. He is constantly acknowledged for being an engaging, passionate and knowledgeable speaker, facilitator and coach.



---

## A message from Hawker Brownlow Education

We hope that you have found these conference papers and the accompanying sessions useful. Please be aware that the contents of these papers are the intellectual property of the speaker and no reproduction for any purpose is authorised. We urge you to take care of this booklet. Replacement copies will not be made available either during or after this conference.

Published in Australia by



This handout was created by Hawker Brownlow Education for the proceedings of the Hawker Brownlow 16<sup>th</sup> Annual Thinking & Learning Conference. All rights are reserved by Hawker Brownlow Education. It is a violation of copyright law to duplicate or distribute copies of this handout by any means for any purposes without prior permission in writing from Hawker Brownlow Education. Professors and workshop presenters must first secure written permission for any duplication rights. For copyright questions, permission requests, or information regarding professional development contact:

Hawker Brownlow Education  
P.O. Box 580, Moorabbin, Victoria 3189, Australia  
Phone: (03) 8558 2444 Fax: (03) 8558 2400  
Website: [www.hbe.com.au](http://www.hbe.com.au)  
Email: [orders@hbe.com.au](mailto:orders@hbe.com.au)

© 2019 Hawker Brownlow Education  
Printed in Australia

CODE: ABI0103  
0519

Year Level	Foundation	Year 1	Year 2	Year 3
<b>Mindsets we want students to have</b>	Have a go and take care	Have a go and managing my learning	Mistakes are my friend	Being a super learner
<b>Key Skills to develop</b>	Pose "why" questions Find information	Pose questions to find out more information Find and sort information Decoding Skills, Comprehension, Questioning while reading	Using graphic organisers to organise information	
<b>Habitual Practices we want students to develop</b>	Put their hand up to ask questions Waiting their turn to ask questions			
<b>Possible Strategies</b>	<ul style="list-style-type: none"> <li>• Explorative play</li> <li>• Begin investigative play in Term 4</li> <li>• Personal best system</li> <li>• Build socialization and learning skills so the children can work together and harmoniously in a community</li> </ul>	<ul style="list-style-type: none"> <li>• In term 1 part explorative play then moving into investigative play</li> <li>• In Term 4 begin simple PBL</li> <li>• Personal best system</li> <li>• Explicit teaching of self-management of learning</li> <li>• build skills that lay the foundation for independent learning</li> </ul>	<ul style="list-style-type: none"> <li>• In term 1 and 2 Advanced investigative play</li> <li>• From term 2 begin move to simple PBL</li> <li>• Use POOCH model template</li> <li>• Personal best system</li> <li>• Continue to build skills that lay the foundation for independent learning</li> </ul>	<ul style="list-style-type: none"> <li>• Term 1 start simple PBL and move to simple IBL in Term 4</li> </ul>

Year Level	Year 7	Year 8	Year 9	Year 10
<b>Mindsets we want students to have</b>	Having a go and partnering one another	Be learning risk takers and being team players	All for One and One for All	Being entrepreneurial and strategic team learners
<b>Key Skills to develop</b>	Research Persuasive Writing Partnership and Early Collaboration	Self-Monitoring learning Strategies Self-Modifying Learning strategies Collaboration		
<b>Habitual Practices we want students to develop</b>	Referencing in research Writing research in own words Everyone answering questions in class			
<b>Possible Strategies</b>	<ul style="list-style-type: none"> <li>• No Opt Out Poster</li> <li>• Design Process Poster used in all rooms</li> <li>• Science Inquiry Phases up in Science</li> <li>• Research Organiser Template used by all</li> <li>• Formative Assessment strategies</li> <li>• TEEL for writing</li> </ul>	<ul style="list-style-type: none"> <li>• No Opt Out Poster</li> <li>• Design Process Poster used in all rooms</li> <li>• Science Inquiry Phases up in Science</li> <li>• Research Organiser Template used for all</li> <li>• Feedback Template</li> </ul>	<ul style="list-style-type: none"> <li>• What, So What, Now What</li> <li>• Research Organiser Template used by all</li> <li>• Feedback Template</li> </ul>	<ul style="list-style-type: none"> <li>• What, So What, Now What</li> <li>• Research Organiser Template used for all</li> <li>• Feedback Template</li> </ul>











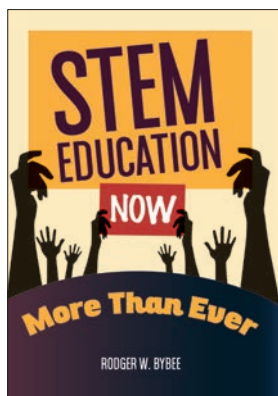




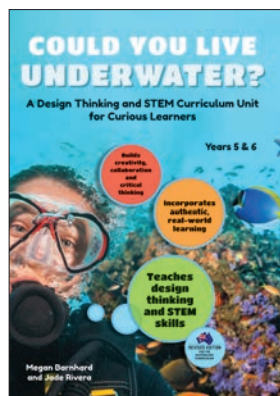


Available from Hawker Brownlow Education

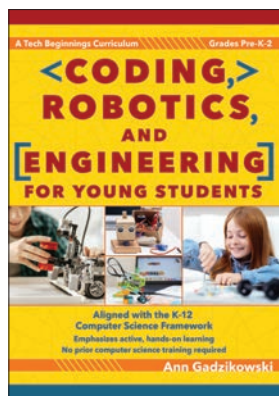
QTY	CODE	TITLE	PRICE
	NST7583	STEM Education Now More Than Ever	\$39.95
	PRU6717	Could You Live Underwater?: A Design Thinking and STEM Curriculum Unit for Curious Learners	\$35.95
	PRU3653	Coding, Robotics, and Engineering for Young Students: A Tech Beginnings Curriculum	\$45.95
	PRU7194	Hands-On STEAM Explorations for Young Learners: Problem-Based Investigations for Preschool to Second Grade	\$35.95
<b>Total (plus freight) \$</b>			



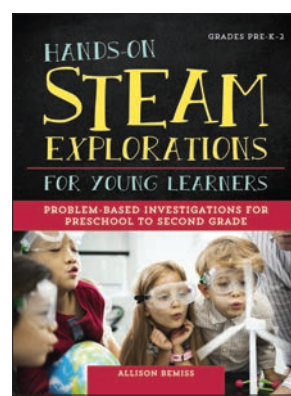
NST7583



PRU6717



PRU3653



PRU7194

Attention ..... Order Number .....

Name of School.....

Address .....

..... State .....P/Code.....

Country .....

Email:.....

Yes, I would like to receive emails from Hawker Brownlow Education about future workshops, conferences and the latest publications.

#### TERMS OF TRADE

- Prices are quoted in Australian dollars (\$AUD) and include GST
- All prices are subject to change without notice.
- Full money-back guarantee.
- We do realise it is difficult to order sight unseen. To assist you in your selection, please visit our website <www.hbe.com.au>. Go to 'Browse Books' and most titles will give you the option to view the first few pages of the book. Click 'View Contents' on your selected book page.
- We will supply our books on approval, and if they do not suit your requirements we will accept undamaged returns for full credit or refund. Posters are for firm sale only and will not be sent on approval. Please be aware that delivery and return postage is the responsibility of the customer.
- Freight costs are determined at Australia Post rates, with a minimum delivery charge of \$9.50 within Australia and \$15.00 for New Zealand for each order.
- Please provide your street address for delivery purposes.

To place an order or to find out more about our resources visit

**www.hbe.com.au**

Do you want to know all about the latest professional development events in your area? Be the first to find out about new releases from world-renowned and local authors with the HBE e-newsletter! Upcoming titles will feature authentic assessment and digital media, along with a strong focus on success in mathematics and literacy. Sign up to our FREE e-newsletter at [www.hbe.com.au](http://www.hbe.com.au).

**Online 'On Account' ordering now available!**

If you have a pre-existing account with Hawker Brownlow Education, you can now order online and pay using that account.