

School of Education

Self-assessment as a strategy for developing creativity and learning competence with different age groups

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Overview

*Self-assessment as a strategy for developing creativity and learning competence with **different age groups****



Clarifying key concepts:

*Metacognition;
self-assessment;
mini 'c' creativity;
and learning
competence*



Scaffolding
students to
develop **creativity**
and **learning**
competence:
Assessment as a
3-phase process



Insider accounts & statistical comparison

between Yr 4 and
Yr 6 in *audience,*
ideas and
character &
setting

*) Age groups in this study: Years 2, 4 and 6

Creative thinking

First, creative ideas must represent something different, new, or innovative.

Second, creative ideas are of high quality.

Third, creative ideas must also be appropriate to the task at hand or some redefinition of that task.

Thus, **a creative response is novel, good, and relevant.**



(Kaufman & Sternberg, 2010, p. xiii, my emphasis)

What stimulates creativity?

Factors found to impact creativity:

- caring deeply about the task/ task-focused motivation
- Perceiving challenging tasks in a positive manner: striving for competence/ mastery

(Sternberg & Lubart, 1992)

- Intrinsic motivation is conducive to creativity and extrinsic motivation is almost always detrimental (Hennessy, 2003, 2010)



Scales of creativity & NAPLAN

- Big-C: breakthrough creativity that changes a field
- Little-c : creative expressions that are novel to the individual but not to society at large
- **Mini-c: intrapersonal creativity that is part of the learning process**

e.g. the work of a student learning creative writing may present ideas for a plot that are novel and appropriate to the individual student, while not novel, useful or of high quality in the wider context of short stories (Beghetto & Kaufman, 2007)

Text structure		
Skill focus: The organisation of narrative features including orientation, complication and resolution into an appropriate and effective text structure.		
	Category descriptor	Additional information
0	<ul style="list-style-type: none"> • no evidence of any structural components of a time- sequenced text 	<ul style="list-style-type: none"> • symbols or drawings • inappropriate genre, eg a recipe
1	<ul style="list-style-type: none"> • minimal evidence of narrative structure, eg a story beginning only or a 'middle' with no orientation • a recount of events with no complication 	<ul style="list-style-type: none"> • note that not all recounts are factual
2	<ul style="list-style-type: none"> • contains a beginning and a complication • where a resolution is present it is weak, contrived or 'tacked on' (e.g. <i>I woke up, I died, They lived happily ever after</i>) 	<ul style="list-style-type: none"> • A complication presents a problem to be solved, introduces tension, and requires a response. It drives the story forward and leads to a series of events or responses. • Complications should always be read in context. • may also be a complete story where all parts of the story are weak or minimal (The story has a problem to be solved but it does not add to the tension or excitement.)
3	<ul style="list-style-type: none"> • contains orientation, complication and resolution • detailed longer text may resolve one complication and lead into a new complication or layer a new complication onto an existing one rather than conclude 	Sophisticated structures or plot devices include: <ul style="list-style-type: none"> • foreshadowing/flashback • red herring/cliffhanger • coda/twist
4	<ul style="list-style-type: none"> • coherent, controlled and complete narrative, employing effective plot devices in an appropriate structure, and including an effective ending 	<ul style="list-style-type: none"> • evaluation/reflection • circular/parallel plots

https://www.nap.edu.au/_resources/2010_Marking_Guide.pdf

Developing learning competence

Teaching practices which promote students' development of competence (learning to learn):

- Promote **perceptions of control** and **autonomy** by allowing students to make **choices** about classroom experience and the work they engage in;
- Provide balance between **promoting autonomy** and offering too little **scaffolding**

(Urdu & Turner, 2005)

Building stones to support thinking: Metacognition & self-assessment

Metacognition: the knowledge and skills that enable students to:

- identify
 - describe
 - understand
 - practice
 - develop; and
 - manage
- ... their own learning processes

(Victorian curriculum)

Self-assessment: a self-regulated learning (SRL) competence that entails the skills of:

- reflection
 - task analysis
 - goal setting; and
 - monitoring
- ... one's learning progress

(Andrade & Brookhart, 2016; Andrade & Brown, 2016; Brown & Harris, 2013; Harris & Brown, 2018)

Snapshot of the study informing this presentation

Aim: *How does primary students' scaffolded planning, as part of the forethought phase in the self-assessment process, shape students' development of metacognitive and self-regulated learning skills?*

Design:

- Writing project, conducted at one-setting, as a cross-sectional form of practitioner research

Sample:

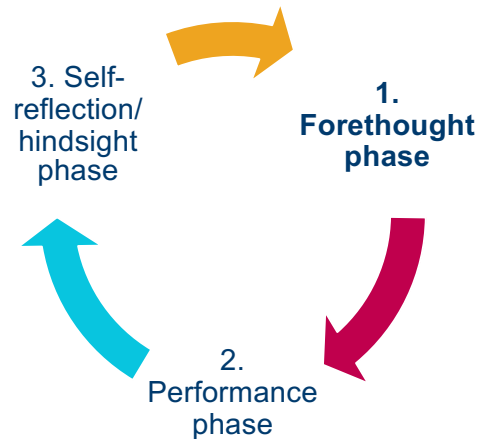
- 256 students from school years 2, 4 and 6 (aged 7, 9 and 11 years)
- 16 teachers at an independent (co-educational, non-religious) primary school in Darwin in the Northern Territory, Australia (ICSEA slightly above average)

Data collection:

- Students' planning templates ($n = 126$)
- Students' writing samples ($n = 220$)
- Interviews with students ($n = 16$) and teachers ($n = 10$)
- Regular semi-structured emails to teachers

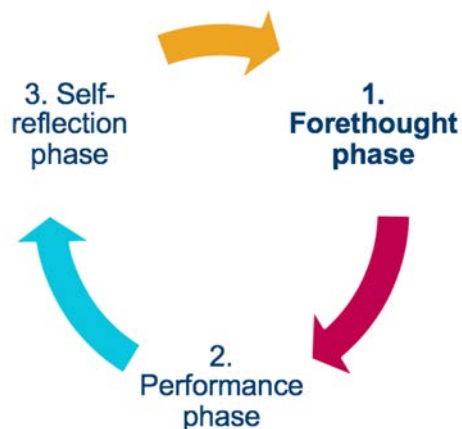
Marked using
the 10 NAPLAN
criteria

Three phases of scaffolding & learning



Scaffolding feedback to be sought

(Fletcher, 2018, adapted from Zimmerman, 2011)



Forethought phase

Students...

- **analyse** relevant curriculum learning outcomes
- **split** overall curriculum outcomes into partial, task-related goals
- **explore** possible learning strategies to employ
- **create** a checklist of strategies and partial goals to meet during the performance/drafting phase
- **determine** timelines for partial goals
- engage cognitively in the learning process by **identifying** what they need help with, and where or whom to seek help from.

Scaffolding Forethought in the planning template

Section 1: Clarifying aim

1. *What will I show that I can do?*

Learning outcomes: *What am I trying to do?*

	Band 3	Extension
Text & audience	Write different types of texts using my own knowledge, experience, thoughts and feelings in my writing. Write for the purpose to inform, argue, persuade, move and entertain readers.	Write creative texts with a clear sequence, consistent plot and developed characters. Persuade the reader with convincing arguments and well-presented information in factual texts.
Structure	Write developed texts which are easy for the reader to understand. Use imagination, information and arguments in my writing.	Control the necessary spelling, grammar, punctuation and text structure to clearly communicate ideas and information in text.
Strategies	Use correct grammar and check that my writing is clear and effective.	Use a range of strategies to research, plan, compose, review and edit written texts to make sure that they are clear to the reader.

1. What will I show that I can do?

Learning outcomes: *What am I trying to do?*

Band 3	Extension
<p>Text & audience Write different types of texts using my own knowledge, experience, thoughts and feelings in my writing. Write for the purpose to inform, argue, persuade, move and entertain readers.</p> <p>Structure Write developed texts which are easy for the reader to understand. Use imagination, information and arguments in my writing.</p> <p>Strategies Use correct grammar and check that my writing is clear and effective.</p>	<p>Text & audience Write creative texts with a clear sequence, consistent plot and developed characters. Persuade the reader with convincing arguments and well-presented information in factual texts.</p> <p>Structure Control the necessary spelling, grammar, punctuation and text structure to clearly communicate ideas and information in text.</p> <p>Strategies Use a range of strategies to research, plan, compose, review and edit written texts to make sure that they are clear to the reader.</p>

Forethought section 2: Considering suggestions

2. *Suggestions to think about before you start...*

Text and Audience	Structure	Strategies				
<p><i>How can I make my text interesting and engaging for the reader?</i></p> <ul style="list-style-type: none"> Which text type will I choose for my writing? How is it structured? What descriptions will I use to make my reader understand what I am trying to say? How can I engage the reader? Should I use fantasy, humour, suspense, convincing arguments...? How will my choice of words affect my reader? How can I make my text convincing? Do I need to refer to other texts or show how I found my information? How can I be creative and present my work so my reader understands and becomes engaged in the text? 	<p><i>How will I organise my writing to make it clear?</i></p> <ul style="list-style-type: none"> How should the text type be structured? Do I need to set out an orientation, complication and resolution...? What content should I choose to include? What is important? Does my writing make sense? Have I used clear sentences, correct spelling and punctuation? Have I started my sentences in different ways? Do I need to use a range of punctuation (↵, ", ')? Is it clear who is speaking in my text? What sounds better – dialogue or a narrator? Should I use quotes? Is time clear in my writing? Have I used verbs in the correct time form? (<i>I walked, he asked...</i>) Have I organised the text into paragraphs? Have I used graphics to improve meaning? 	<p><i>What planning will help improve my writing?</i></p> <ul style="list-style-type: none"> Could I brainstorm ideas? Would a sense chart help to plan for how to involve the audience? <table border="1" style="margin: 5px 0;"> <thead> <tr> <th style="text-align: center;">Thoughts</th> <th style="text-align: center;">Feelings</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Sights</td> <td style="text-align: center;">Sounds</td> </tr> </tbody> </table> Is there a style of writing I can imitate to improve my writing? How can I make sure my draft is proofread and checked for spelling, punctuation etc.? Should I make a checklist for myself, work with a friend or use another strategy? What tools can I access to improve my writing? Dictionaries? Thesauruses? Computers? Have I written down the sources where I found my information? Could I use a template as an exemplar to check my writing against? 	Thoughts	Feelings	Sights	Sounds
Thoughts	Feelings					
Sights	Sounds					

2. Suggestions to think about before you start...

Learning outcomes: *What am I trying to do?*

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<p>Text & audience Write different types of texts using my own knowledge, experience, thoughts and feelings in my writing. Write for the purpose to inform, argue, persuade, move and entertain readers.</p> <p>Structure Write developed texts which are easy for the reader to understand. Use imagination, information and arguments in my writing.</p> <p>Strategies Use correct grammar and check that my writing is clear and effective.</p>	<p>Text & audience Write creative texts with a clear sequence, consistent plot and developed characters. Persuade the reader with convincing arguments and well-presented information in factual texts.</p> <p>Structure Control the necessary spelling, grammar, punctuation and text structure to clearly communicate ideas and information in text.</p> <p>Strategies Use a range of strategies to research, plan, compose, review and edit written texts to make sure that they are clear to the reader.</p>

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Forethought section 3: Selecting Text type & Audience

3. Think about this as you start planning your work

Text type: *What sort of text will I write?*

Narrative	Explanation	Recount	Report
Poetry	Procedure	Other: _____	

Audience: *Who is the text meant to engage?*

Children	Teenagers	Parents	Teachers
People in Darwin	People in power	Other: _____	

4. Check off as you work

Assessment checklist: *These are the things I will focus on*

Text and Audience:	My progress
Structure:	
Strategies:	

3. Think about this as you start planning your work

Text type: *What sort of text will I write?*

Narrative	Explanation	Recount	Report
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Children	Teenagers	Parents	Teachers
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Example from 'Leon', Year 6, whose planning template identified 'play' for 'children aged 3 to 6' as the intended text and audience.

Forethought section 4: Setting partial goals

3. Think about this as you start planning your work

Text type: *What sort of text will I write?*

Narrative	Explanation	Recount	Report
Poetry	Procedure	Other: _____	

Audience: *Who is the text meant to engage?*

Children	Teenagers	Parents	Teachers
People in Darwin	People in power	Other: _____	

4. Check off as you work

Assessment checklist: *These are the things I will focus on*

Text and Audience:	My progress
Structure:	
Strategies:	

Assessment checklist: *These are the things I will focus on*

Text and Audience:

Simple language.
Teach them a lesson never to lie.
Exciting voices.

Structure:

Fantasy
Animal characters

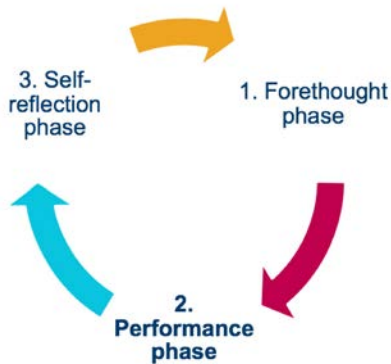
Strategies:

Keep the audience entertained.
Get characters to talk to audience.
Get audience to do stuff.

Example from 'Leon', Year 6, whose planning template identified 'play' for 'children aged 3 to 6' as the intended text and audience.

Scaffolding feedback to be sought

(Fletcher 2018, adapted from Zimmerman, 2011)



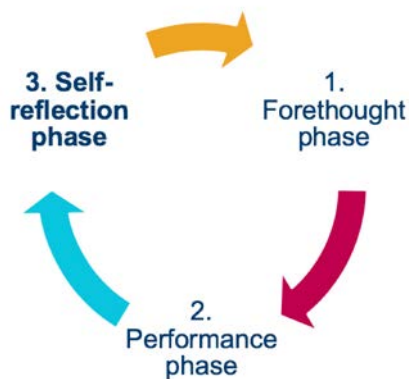
Performance phase

Students...

- monitor their understanding and seek help
- check performance against partial goals to monitor progress
- seek feedback

3 phases of scaffolding feedback to be sought

(Fletcher 2018, adapted from Zimmerman, 2011)



Self-reflection phase

Students...

- identify strengths and areas to improve for next time
- attribute reasons for success and challenges

Findings: Driving your learning is both challenging and rewarding



Q: How did you find the whole writing experience?

Clive:

It was kind of tricky and fun. The tricky bit was that you had to think of your own story. And the fun bit was that you've got to make a problem and how they, like, solve it and what's the beginning and so on. So, yes, that was fun about it

Interview with Clive, Year 2 student

Insider account: Elle's impressions

I felt that they understood what they were writing it for. [...] They didn't just show me that they understood the structural 'how to do it'. It wasn't so mechanical. It was more... they just gripped on to it. It was like, Right, there is a meaning for this, I know whom I'm writing it to, and for; and why I'm writing it. So I'm going to do the best I can do.

Follow-up interview with Elle, Year 6 teacher

Insider account: Monica

Students really surprised me and worked well on their writing activity. [Jack] said that this was the first time he had written such a long story. Students like [Charlie], who are normally weak in writing skills, did well and never complained about having to write a recount. It really helped to have the assessment criteria (outcomes) that they had written themselves to refer back to.

I regularly check that the students have referred back to their outcomes. I said at the beginning that we would work on the project for three weeks, but I have found that in two weeks the majority of the kids have only done their planning and their written copy.

Follow-up email sent from Monica, Year 6 teacher, during the project

Insider account: Lisa's reflection

I chose 'Elvish' as my topic after watching the movie, 'The Lord of the Rings'. In 'The Lord of the Rings', the Elves speak quite a lot of Elvish. I thought that I could listen carefully and try to understand what they were saying. [...]

My reason for choosing this topic was because I thought it would be interesting to research. I thought that this was my chance to talk about my favourite language. I enjoyed being able to choose my topic. I can't stop reading my own work because I think it's really interesting and I didn't think that I'll do really good and I didn't think that I'll be able to write this much because when I chose to do Elvish, I didn't know that much about it. Now I know quite a few things about Elvish language and J. R. R. Tolkien.

Written reflection (phase 3) from Lisa, Year 6 SDA student

Audience

NAPLAN CRITERIA	Post-test		Pre-test		<i>d</i>
	Mean	SD	Mean	SD	
Yr. 4 Audience (SDA)	2.78	.64	2.53	.51	.43
Audience (TDA)	3.01	.79	2.59	.63	.58
Yr. 6 Audience (SDA)	3.54	1.06	3.13	.81	.43
Audience (TDA)	2.74	1.03	3.00	.69	-.30

Notes.

Year 4 SDA (n = 40), Year 4 TDA (n = 29)

Year 6 SDA (n = 76), Year 6 TDA (n = 84)

- The post-test *Audience* scores compared to the pre-test *Audience* scores indicated a moderate effect of progression in both the SDA and the TDA groups
- Differing results across the age groups:
 - the Year 4 TDA group's scores showed a stronger effect of progression compared to the SDA group
 - the Year 6 students' post-test *Audience* scores compared to the pre-test scores, varied significantly between the SDA and the TDA groups.
- The Year 6 SDA students' mean post-test scores suggest that Narrative devices such as humour, suspense and genre-styles were more developed in the Year 6 SDA group's writing samples, compared to the Year 6 TDA samples.

Ideas

NAPLAN CRITERIA	Post-test		Pre-test		<i>d</i>
	Mean	SD	Mean	SD	
Yr. 4 Ideas (SDA)	2.68	.54	2.48	.60	.35
Ideas (TDA)	2.36	.61	2.38	.49	-.04
Yr. 6 Ideas (SDA)	3.19	.90	3.03	.49	.21
Ideas (TDA)	2.74	.94	2.86	.52	-.16

Notes.

Year 4 SDA (n = 40), Year 4 TDA (n = 29)

Year 6 SDA (n = 76), Year 6 TDA (n = 84)

- Statistically significant difference in both Yr 4 and Yr 6.
 - A score of 2 suggests that "ideas [were] few, not elaborated or very predictable"
 - A score of 3 in the NAPLAN Ideas rubric, indicates that ideas "show some development or elaboration [and] all ideas relate coherently to the storyline".
- In Year 6 SDA group, the development of ideas was progressing towards a score of 4, which indicates that "ideas are substantial and elaborated ideas effectively contribute to a central storyline [and] the story contains a suggestion of an underlying theme"
- Both the Year 4 and Year 6 TDA groups showed a negligible, in fact marginally negative effect size of development between the post-test and pre-test scores

Character and Setting

NAPLAN CRITERIA	Post-test		Pre-test		<i>d</i>
	Mean	SD	Mean	SD	
Yr. 4 Character /Setting (SDA)	2.05	.78	1.80	.89	.30
Character /Setting (TDA)	2.17	.57	1.97	.68	.32
Yr. 6 Character /Setting (SDA)	2.91	.78	2.42	.64	.69
Character /Setting (TDA)	2.38	.85	2.43	.54	-.07

Notes.
 Year 4 SDA (n = 40), Year 4 TDA (n =29)
 Year 6 SDA (n = 76), Year 6 TDA (n = 84)

- The Year 6 SDA students' higher scores suggest that they used strategies such as attributing thoughts and using descriptions, actions and speech to develop characters in their writing samples
- Compared to the Year 6 SDA students, the Year 6 TDA students' portrayal and development of character and sense of place, was less substantial and lacked the same degree of continuity.

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Let's test the theory*!

*) Urdan & Turner, 2005



1. Take a moment to identify a challenging task you experienced last week.

Situation
Task

Action

Result

2. Get someone at your table to share their example with the others

3. Discuss the impact of perception of *control*, *choice* and *learning competence*. *How could this be applied to in a classroom situation?*