

# Driving one's own learning – full speed ahead! Motivationally anchored instruction



Dr Alison Davis  
Vision Education, New Zealand

*Dr Alison Davis is the Director of Vision Education, a New Zealand organisation that specialises in the delivery of professional development to schools and leaders in literacy, student agency, assessment, school self-review and school change. Alison has a wide range of experience and expertise in the development of school and organisational based professional learning development (PLD) and teaching as inquiry. She is a well-known and highly respected leading researcher, writer, speaker and staff trainer working in Asia, Australia, the Middle East, New Zealand and the United States. She is particularly known for her research on reading comprehension and writing instruction and for leading initiatives focused on accelerating and sustaining improved levels of literacy achievement. Her PhD thesis investigated the characteristics associated with raising the reading comprehension achievement of underachieving students' in Years 3–9. Alison has subsequently authored nine professional texts for teachers to use in classrooms.*

*Alison has also been active in leading a range of inquiry initiatives through the PLD projects she mentors. These include a project in Queensland between three secondary schools seeking to raise literacy achievement in cross curricula contexts and a wide range of inquiries on raising achievement for priority students within primary educational settings. Alison has also published a range of professional papers on this work and has been a keynote and workshop presenter for a large number of conferences.*

## Abstract

This paper explores the concept of motivationally anchored instruction, how it is practised in classrooms and the structure for teacher professional learning that supports its implementation.

Participants will examine how teachers enact pedagogical practices that deliberately develop and grow students' inner desire to *want* to learn. Content will draw on the analogy of learners driving their own learning by describing and examining deliberate acts of teaching that grow and develop the intrinsic motivation dispositions of our students. Research and practices that support a learning environment where intrinsic motivation creates internal drive and desire to do well are examined, and such instructional practices ultimately lead to improved student achievement. In order to raise achievement and accelerate rates of learning, motivationally anchored instruction is critical.

The examples presented primarily draw on three projects lead by Alison: a cluster collaboration in Far North Queensland between three large urban secondary schools to improve writing across the curriculum; a schooling improvement project focused on acceleration of literacy outcomes for Māori and Pasifika students in New Zealand; and an Acceleration Literacy Learning inquiry project of which the author is a national leader.

## Introduction

Raising achievement is a goal of much educational endeavour as leaders and teachers strive to improve educational outcomes for students. Frequently this work is driven by a model of teaching as inquiry (e.g. Fowler, 2012; Timperly, Halbert, & Kaser, 2014), supporting an approach to professional learning and development that uses multiple forms of student assessment data to inquire into, and develop responsive and reflective improvement practices. The concept of acceleration, where students who are underachieving progress at a faster rate than that of their peers in order to reach expected outcomes, is integral to this. Consequently, practices that strengthen partnerships and relationships between teachers and students have come to the fore of the core work of leaders and teachers. These include a heightened focus on understanding intrinsic motivational factors, and deliberately embedding these in everyday teaching and learning approaches to develop student motivation and agency.

## A motivational perspective on teaching and learning

Motivation, put simply, is a person's desire and reason for doing something and doing something well. There are two forms of motivation – extrinsic motivation and intrinsic motivation. Extrinsic motivation is when desire and reason are based on external influences such as the expectation of receiving praise or receiving a reward. By comparison, intrinsic motivation is led by the person's internal drive, belief and desire to do something. Intrinsic motivation can be encapsulated by the well-known saying 'They who think they can, can'.

Both extrinsic and intrinsic motivation can heavily influence a student's performance at school. In the

context of literacy instruction, reader and writer motivation are an often underestimated but integral component of acceleration and achievement. While both extrinsic and intrinsic motivation have the potential to influence student outcomes, this paper positions intrinsic motivation and the subsequent development of inner belief in oneself, as an essential element in strengthening and accelerating a student's learning trajectory.

It is widely understood that intrinsic motivation is fundamental to learning and therefore, motivation is a critical understanding within today's educational contexts of improving and accelerating achievement. The Latin word 'intrinsic' is a combination of two words meaning 'within' and 'alongside'. As such, intrinsic motivation drives students to put effort themselves into their own learning, to have power and control over their own learning (agency) rather than completing a set task/series of tasks for the purposes of compliance, accountability or external reward. In the context of academic achievement, intrinsic motivation is bound and influenced by a set of beliefs and self-perceptions individual students develop in the classroom (Jang, Conradi, McKenna, & Jones, 2015). These include:

- attitude and awareness
- interest, relevance and curiosity
- value
- self-concept
- self-efficacy
- goal setting and goal reaching.

Enabling, creating and sustaining intrinsic motivation relies on teacher understandings of how to engage with these beliefs and self-perceptions as an integral part of everyday instruction. While the relationship between each of these is multi-directional, they all influence each other and are all inter-related.

When used in combination, they create an optimal learning environment for students. Each belief and self-perception is a predictor of motivation. Further, most students are motivated to learn when they feel included and respected, find learning relevant, interesting, engaging and challenging and become effective in learning what they value (Ginsberg, 2011). Subsequently, motivation affects both new learning and the performance of previously learned skills, strategies and behaviours (Schunk, Meece, & Pintrich, 2008).

The purpose of this paper is to present, summarise and exemplify each perception, and to encourage the reader to critique their own knowledge practice of how each is interrelated and their impact on instructional practices, relationships, achievement and acceleration.

## Learning environments that influence student motivation

### Attitude and awareness

For the purposes of this discussion, attitude and awareness are viewed as tricomponent, drawing on attitudes and awareness of both the learning climate and the classroom task (Mathewson, 2004; Marzano, 2003, 2007, 2011), through the lens of the students as follows:

- *Evaluation* – having a positive or negative evaluation of the classroom climate and the learning task.
- *Feeling* – having a positive or negative feeling towards the classroom climate and the learning task.
- *Action readiness* – being inclined to learn and be enthusiastic towards learning and the learning task.

Developing a positive attitude and awareness towards learning means developing a climate where students feel included and in control of their learning, are clear about their tasks, have a strong sense of presence, feel favourable towards learning and have the deliberate and conscious intention to learn.

### Instructional approaches

This paper outlines four instructional approaches designed to develop student attitudes and awareness and develop their personal expectations for success.

#### Joint critique of instructional practice through the lens of students and teachers

Through this practice, teachers seek and respond to the voice and feedback of their students when reviewing the effectiveness of their instruction, the appropriateness of teaching approaches and the design of academic tasks. Joint critique provides a means of gathering and responding to student voice (see p. 33) in order to understand learning from the perspective of the student on the understanding that motivation is

strengthened when teachers learn from students about what is working, what is not working and jointly explore opportunities for improvement. Through identifying what needs to be focused on to improve motivation and learning, the information gleaned provides new possibilities for learning for both teachers and students.

#### Deconstruction of learning tasks

Deconstruction of learning tasks helps to build confidence and knowledge within students of the skills and abilities necessary to complete a given task. Even though the task might look difficult at the onset, deconstruction through explicitly planned discussion, exemplification, teacher and student think aloud and demonstration breaks down elements of the task to specific achievable steps. Engagement in the process of deconstruction encourages students to be predisposed to 'give it a go' and builds confidence and preparedness for risk taking. It moves the locus of control of learning towards the students, often supported by the use of learning goals and success criteria written in student friendly language and by investigation and analysis of exemplars related to the task.

#### Co-construction of learning tasks through joint planning of topic and tasks

Co-construction involves deliberately planning time for students to have input into the topic they will be studying. It means involving students in what they would like the teacher to do to help them learn best, jointly designing tasks that will support their learning, and offering suggestions for how the learning goals can be achieved and the mix of activities that will best help them to achieve this. Through this practice, a teacher shares future learning goals with their students and students provide feedback on potential difficulties, activities they expect would assist their learning, and together teacher and students jointly plan topics, tasks and outcomes. These deliberate acts strengthen student motivation, agency and control over their own learning.

#### Implementing new and different teaching approaches

To vary teaching approaches recognises that students learn in different ways through guided learning, scaffolded instruction, cooperative learning, peer engagement, independent learning and maintenance and mastery of content, skills, strategies and processes.

Additionally, there are strong links between attitude, intention and interest, explaining how attitude often serves as the dynamic that fosters intention and piques student interest towards learning. The next section describes and discusses how teachers pique their students' interest and curiosity in order to motivationally anchor their instruction.

## Interest, relevance and curiosity

Interest, relevance and curiosity can be both situational and personal. Therefore, making learning contextual to real-world experiences is a key factor in developing motivation and agency amongst students. When learning is made relevant to students' own lives, teachers build both student interest and meaning towards tasks (Guthrie et al., 2007). Further, interest is commonly associated with effort, leading us to understand that it is likely that we will try harder when we are interested and see the relevance of something we are asked to learn.

Similarly, a basic source of student lack of motivation is lack of interest (also known as boredom) and this ensues when the topic, task or purpose for learning is not seen as interesting, relevant or challenging by the student. High interest tasks include those that provide a challenging problem-solving dimension, pique curiosity, offer choice, require reflection and involve student collaboration in order to improve their desire to take part and become involved in learning.

### Practices that stimulate student interest and curiosity

#### Gather strong knowledge on student interests

Knowing and understanding student interests and then using these to inform and plan instruction deliberately builds on student interest. Teachers show they value student interests as they gather information through a range of approaches that may include student surveys, small group interviews, focus group discussions, questionnaires, blogs and explicit feedback on learning from students to their teachers.

#### Provide choices based on student interests

Choice leads to ownership and responsibility and helps students believe they have autonomy and control over their learning (Patall, Cooper, & Wynn, 2010). Planning to deliberately include some elements of choice within a unit of work purposefully invites student control over learning. For example, students may have the choice of two different tasks concerning the same science concepts, choice from a selection of writing frameworks to meet task demands, choice to select text and purpose for reading or choice of number and order of tasks to be completed within an assignment.

#### Plan high challenge tasks, provide a problem-solving dimension and involve students

Problem-solving approaches create interest by offering active opportunities to engage with learning. Problem-solving tasks may involve students being asked to consider how they might rewrite the same main arguments/message using another text structure, how they might improve the grade and feedback on an example of work that did not meet expectation or how

they might present the same information from a different point of view. Seek ways to involve students in planning how they might solve learning problems, sharing and comparing their approaches and suggestions to those of their peers and using their experiences to decide a pathway to move forward.

#### Provide opportunities for students to work collaboratively

As with both attitude and interest, motivation can diminish if student expectations are not fulfilled. Instructional approaches must provide commitment and consistency of approach rather than isolated opportunities that do not serve the best interests of learning.

## Value

Value relates to worth, significance and importance. Two types of value are important in relation to motivation: attainment value and utility value (Schunk et al., 2014). Attainment value is the value of being able to achieve something, of completing a task well and reaching the desired goal/outcome. Utility value is the perceived usefulness of this for the future, how useful something will be when we have learned it, and how useful this is in reaching future goals (Schunk et al., 2014). Both are influenced by a range of factors including how the task meets ones needs, the 'cost' of completing the task in relation to time and effort and what a student will have to give up or delay in order to complete a task. Because we direct energy towards goals and learning that we value and see as useful or important, value is also strongly reliant on respect for cultural, linguistic and social diversity and equity (Ginsberg, 2011).

### Practices that embed and develop the concept of value

#### Make explicit the purpose and learning benefits of the lesson

Deliberately planning lesson delivery to help students to understand the purpose of what they are learning and of the learning task is pivotal to developing a sense of value towards a task. This supports students to understand, articulate and demonstrate the learning benefits of the task (Davis, 2011, 2013, 2016; Pressley, 2006) and the relevance and relatedness of learning to 'real life'. Seeking feedback from students, finding out how learning a specific skill or strategy helped a student achieve their task provides insight between teacher and student on the attainment and utility value of what students have been asked to do.

#### Seek and respond to student voice

Student voice provides valuable and helpful insight into the utility value of learning. Ask students to give feedback on the usefulness of the activity, and explain

and demonstrate how useful what they have learned has been, compare this to other activities and provide opportunities for them to share the impact of learning on themselves.

### **Involve students in decision making**

If teachers are able to share the 'next' learning topics and tasks with their students and seek their feedback, they will actively involve students in instructional decision making. Students may offer valuable insights and suggestions into how the teaching could be developed in order to best help them to learn. Teachers could also discuss and share why it is important for students to know these things, and how this knowledge will help future learning and achievement.

Each of these approaches also support students to feel that they themselves are being valued in the learning partnership and in developing motivationally anchored instruction.

## **Self-concept**

This section discusses the importance of self-concept in developing motivation and agency (power and control of learning) within students.

Self-concept is a person's view or idea of themselves, how they appraise themselves and what they think of themselves. Self-concept informs the cognitive images of what you are, or what you might become (Dweck, 2006; Mathewson, 2004), are associated with a sense of competence and confidence (Guthrie, 2008; Guthrie & Humenick, 2004; Guthrie, Wigfield, & Perencevich, 2004). Research suggests a reciprocal relationship between a student's academic self-concept and their achievement (Seaton et al., 2014) and that this is strongly linked to the kind of feedback students receive about their learning and themselves as learners. When students view themselves as progressing and being competent at something, this positively affects achievement. This is evidenced in the context of reading through the research of Becker, McElvany and Kortenbruck (2010) reporting that students often fail because they do not experience the progress and competence that leads to strong self-concept.

The next section describes some actions designed to enable student motivation towards achievement by addressing and developing student self-concept. Each approach supports and develops students' personal views of themselves and their expectations for success.

### **Explicit feedback to students about learning**

Generally speaking, feedback focuses on the learning intention of the task, occurs as the students are doing the learning, provides information on how and why the student understands and misunderstands, provides strategies to help the student to improve and assists

the student to understand the goals of the learning (Hattie, 2012; William, 2018a, 2018b). When focused on student understanding, feedback on learning processes also improves a student's metacognitive knowledge and awareness of how they learn.

### **Explicit feedback from students about learning**

Using a range of teaching approaches will provide opportunities to receive and reflect on explicit feedback from students. These approaches include:

- the 'think aloud' – students explain their thinking as they complete a task
- peer demonstration – supported by explicit description and annotation by the student
- self-marking – students provide reasons and evidence for marking and assigning a grade
- use of scaffolds for younger learners (e.g. 'I think I am good at writing because I am able to do the following...').

Selecting and combining each of these approaches will provide a range of deliberately planned instructional opportunities for students to share feedback on their own learning throughout instruction. Additionally, feedback from students leads to review of task clarity and, as needed, re-teaching opportunities.

### **Provide praise**

Along with feedback, it is important to praise effort for a successfully accomplished task. While praise is different to feedback it is also important in developing positive self-concept. When used effectively, praise serves to encourage the idea that effort and hard work has led to learning, thus it is focused on effort rather than intelligence (Dweck, 2008)

### **Creating opportunities for students to show their progress**

Instructional routines that involve students in monitoring their own progress effectively build self-concept (Dweck, 2006). Examples within regular classroom practice include the use of formative assessment practices, in particular those of self-assessment and self-regulation. Where formative practices have ensured that students clearly understand learning goals, success criteria and task design, self-assessment provides opportunities for students to develop strong insights into their own learning and self-regulation enables learners to take control of their own learning and actions towards reaching goals (William, 2011). Davis (2013, p. 23) explains 'self-assessment of writing is effective when students can explain the criteria against which they are self-assessing and have viewed, discussed and analysed written exemplars of what the criteria 'looks' like in practice'.

Developing classroom expectations and routines that are strongly focused on enhancing student self-concept is instrumental in rethinking instruction so that students feel in control of their own learning. The next section examines the importance of student self-efficacy within a learning environment that positively influences student motivation.

## Self-efficacy

A student's belief in their ability to carry out a task to successful completion represents their self-efficacy. When a student views themselves as capable or has belief and confidence about their future ability to complete a future task they have strong self-efficacy. This also links to feeling positive and encourages behaviours such as perseverance and conscientiousness. Self-efficacy goes a long way in determining a student's likelihood of academic success; research indicates that the stronger the self-efficacy the more likely one is to persist even when challenged (Guthrie, 2008). In summary, self-efficacy encompasses the notion that what we believe ourselves capable of doing/achieving will most often lead to increased effort and expectations of how well we will complete a task. The following section provides example of practices that embed and develop the concept of self-efficacy.

## Encourage students to investigate different strategies rather than giving up

Across the curriculum there are a number of strategies that students can employ to improve learning. When students are able to demonstrate and explain specific strategies, and then select, combine and use them appropriate to task and learning goal, their confidence in their ability to successfully achieve their goal increases. Researchers including Pressley (2006), Duke and Roberts (2010) and Fisher, Frey, and Lapp (2009) have each extolled the importance of strategic knowledge held by students through the development of explicit strategy instruction. Additionally, within the context of reading instruction, teachers may also use approaches such as reciprocal reading (Palinscar & Brown, 1984) and literature circles (Daniels, 1994), and adaptations of these, whereby students actively interact with a range of comprehension strategies (Davis, 2016).

## Co-construct assessment rubrics and marking guides

Co-construction provides clarity of understanding about tasks and expectations and assists students in developing the skills and strategies required to improve learning and monitor their own progress. Together teachers and students and/or students and students examine the task and outcomes, seek and examine examples, discuss features of successful end products and develop rubrics and marking guides to accompany

a task. This practice can be extended whereby students set the grade they wish to achieve and then make a commitment to get there, identifying what they will need to do and the support they will require along the way.

## Self-assessment leads students to take a proactive stance towards learning

Self-efficacy is further strengthened through practices that embed self-assessment, with self-assessment criteria that is strongly learning orientated rather than performance orientated. A range of self-assessment activities, as discussed in the previous section, impact strongly on developing student self-efficacy.

## Develop shared understandings of feedback logs and learning journals

Both feedback logs and learning journals enable students to record their learning over time. There are a number of options available for classroom use, including those that are co-constructed between the teacher and students. Feedback logs provide a forum for students to discuss and interpret feedback received from teachers and peers while learning logs provide opportunities to record and reflect on the learning task(s), what was achieved, how well this was achieved and the next goals for subsequent instruction.

In addition, each of the examples above actively engage students in self-regulatory activities that link also to their ability to set and reach goals. The final section of this paper discusses the final belief and self-perception to develop motivationally anchored instruction – that of goal setting and goal reaching

## Goal setting and goal reaching

Goal setting and goal reaching of meaningful goals that focus on learning, progress and effort over performance, support meaningful and motivationally rich learning. When supported by feedback towards these goals, this practice also develops what Dweck (2006, 2015) refers to as growth mindset, the self-belief in one's ability to learn.

Setting goals and the ways in which to achieve them is an important component of motivationally anchored classroom instruction. It is important that goals have high relevance to students and make connections between what students are learning/reading/writing and their own lives and contribute to their own understanding of themselves as learners.

Goals that students own and understand will strengthen overall ownership and understanding of learning. Within the classroom context, large goals are frequently broken into a series of smaller goals. This practice fosters goals that are both attainable and enables students to enjoy the satisfaction of reaching a goal, and celebrating this,

building self confidence and self-belief to reach the next goal. Instruction will frequently incorporate a range of routines and approaches to establish how students track progress towards goals, enabling students to see and discuss their progress with teachers and peers, and, as appropriate, update personal records, learning log and/or charts created to assist them to self-monitor and evaluate their progress towards achieving their goal(s). Marzano (2007) further suggests that teachers and students regularly review the targets and use these as the basis for instruction, having students choosing goals most useful to themselves and translating goals in to student friendly language. Additionally, self-report goals rank highly on effect size (Hattie, 2012) and generate intrinsic motivation towards learning.

## Conclusion

This paper has examined student motivation through a set of beliefs and self-perceptions that individual students develop in relation to learning and how these impact on their progress and achievement. In addition, this paper has strongly emphasised and exemplified how motivation is entrenched in ownership and self-knowledge.

There are many actions that educators can take to help our students develop intrinsic motivation, to develop belief in themselves and feel that they have power over their own learning. Teachers who have both a deep knowledge of their subject matter/core curriculum areas combined with intentional practices to teach in ways that keep students focused and interested in learning are highly important. Additionally, viewing motivation as not 'one thing' but rather a set of inter-related components that have strong influence on achievement and understanding and building on these through choices of instructional practices. This paper has explored how teachers who are knowledgeable about motivation, and creating motivational environments within teaching and learning, are more likely to create conditions under which students 'go all out' as they strive to succeed. It is by taking care to address and combine these and other like approaches through rich, focused and needs-based learning that teachers and students together affect change.

## Reflective questions

- To what extent is classroom instruction designed so that students view learning as a useful and enjoyable activity?
- What does motivationally anchored instruction look like within different teaching contexts?
- How might classroom practices be adapted to deliberately strengthen student motivation?

## References

- Becker, M., McElvany, N., & Kortenbruck, M. (2010). Intrinsic and extrinsic reading motivation as predictors of reading literacy: A longitudinal study. *Journal of Educational Psychology* 102(4), 773–785.
- Daniels, H. (1994). *Literature circles: Voice and choice in the student-centred classroom*. York, ME: Stenhouse.
- Davis, A. J. (2011). *Building comprehension strategies*. Melbourne, Australia: Eleanor Curtain Publishing.
- Davis, A. J. (2013). *Effective writing instruction*. Melbourne, Australia: Eleanor Curtain Publishing.
- Davis, A. J. (2016) *Teaching reading comprehension* (2nd ed.). Melbourne, Australia: Eleanor Curtain Publishing.
- Dweck, C. (2006). *Mindset: The new psychology of success*. New York, NY: Random House.
- Dweck, C. S. (2008, Winter). Brainology: Transferring students' motivation to learn. *School Matters*. Retrieved from <http://www.nais.org/publications/ismagazinearticle.cfm?ItemNumber=150509>
- Dweck, C. (2015). Carol Dweck revisits the 'growth mindset'. In *Education Week*, Sept 2015. MD: USA. Retrieved from <https://www.edweek.org/ew/articles/2015/09/23/carol-dweck-revisits-the-growth-mindset.html>
- Duke, N. K., & Roberts, K. L. (2010). The generic nature of reading comprehension. In D. Wyse, R. Andrews, & J. Hoffman (Eds.), *The Routledge international handbook of English, language and literacy teaching* (pp. 74–86). New York, NY: Routledge.
- Fisher, D., Fey, N., & Lapp, D. (2009). *In a reading state of mind: Brain research, teacher modelling, and comprehension instruction*. Newark, DE: International Reading Association.
- Fowler, M. (2012). Leading inquiry at a teacher level: It's all about mentorship. *Set: Research Information for Teachers*, 3, 2–7. NZCER Press: Wellington, New Zealand.
- Ginsberg, M. B. (2011). *Transformative professional learning: A system to enhance teacher and student motivation*. USA: Corwin
- Guthrie, J. T., Hoa, A. L. W., Wigfield, A., Tonks, S. M., Humenick, N. M., Littles, E. (2007). Reading motivation and reading comprehension growth in the later elementary years. *Contemporary Educational Psychology*, 32(3), 282–313. doi:10.1016/j.cedpsych.2006.05.004

- Guthrie, J. T., & Humenick, N. M. (2004). Motivating students to read: Evidence for classroom practices that increase motivation and achievement. In P. McCardle & V. Chabra (Eds.), *The voice of evidence in reading research* (pp. 329–354). Baltimore, MD: Paul H. Brookes.
- Guthrie, J. T., Wigfield, A., & Perencevich, K. C. (Eds.). (2004). *Motivating reading comprehension: Concept-oriented reading instruction*. Mahwah, NJ: Erlbaum.
- Guthrie, J. T. (2008). *Engaging adolescents in reading*. Thousand Oaks, CA: Corwin Press.
- Hattie, J. (2012). *Visible learning for teachers*. London, UK: Routledge.
- Jang, B. G., Conradi, K., McKenna, M. C., & Jones, J. S. (2015). Motivation: Approaching an elusive concept through the factors that shape it. *The Reading Teacher*, 69(2), 239–247.
- Marzano, R. (2003). *What works in schools: Translating research into action*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Marzano, R. J. (2007). *The art and science of teaching*. Alexandria, VA: ASCD.
- Marzano, R. J. (2011). Art and science of teaching/relating to students: It's what you do that counts. In *What Students Need to Learn*, 68(6), 82–83.
- Mathewson, G. C. (2004). Model of attitude influence upon reading and learning to read. In R. B. Ruddell & N. J. Unrau (Eds.), *Theoretical models and processes of reading* (5th ed.) (pp. 1431–1461). Newark, DE: International Reading Association.
- Palincsar, A. S., & Brown, A. L. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction*, 25(2/3), 219–270.
- Patall, E. A., Cooper, H., & Wynn, S. R. (2010). The effectiveness and relative importance of choice in the classroom. *Journal of Educational Psychology*, 102(4), 896–915. doi:10.1037/a0019545
- Pressley, M. (2006). *Reading instruction that works: The case for balanced teaching* (3rd ed.). New York, NY: The Guildford Press.
- Seaton, M., Parker, P., Marsh, H. W., Graven, R. G., Yeun, A.S. (2014). The reciprocal relations between self-concept, motivation and achievement: Juxtaposing academic self-concept and achievement goal orientations for mathematics success. *Educational Psychology* 34(1), 49–72.
- Schunk, D. H., Meece, J. R., Pintrich, P. R. (2014). *Motivation in education: Theory, research and applications* (4th ed.). Boston, MA: Pearson.
- Timperley, H., Kaiser, L., & Halbert, J. (2014). *A framework for transforming learning in schools: Innovation and the spiral of inquiry*. Melbourne, Australia: Centre for Strategic Education.
- William, D. (2011). *Embedded formative assessment*. Melbourne, Australia: Hawker Brownlow Education.
- William, D. (2018a). *Embedded formative assessment* (2nd ed.). USA: Solution Tree Press.
- William, D. (2018b). *Creating the schools our children need: Why what we're doing now won't help much (and what we can do instead)*. USA: Solution Tree Press.