

LEAPING INTO LEARNING: PROMOTING ACADEMIC RESILIENCY IN YEAR 6 BOYS
THROUGH THE LEARNING PIT

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Abstract

Over a period of ten weeks, nineteen Year 6 boys aged between 10 and 11 from Wellesley College, New Zealand, utilized James Nottingham's (2017) model for learning, the *Learning Pit*. After several introductory lessons, the boys applied the model to academic tasks to ascertain what affects the *Learning Pit* would have on their academic resiliency. A secondary intention of the project was to establish if, through the application of the *Learning Pit* model, the boys' understanding of the various stages of the learning process would be strengthened. Martin and Marsh (2003) align specific attributes with academic resiliency and these were used to guide reflections and identify progress made throughout the project.

Using multimodal and engaging activities, I unpacked the *Learning Pit* over a series of weeks to ensure all boys had a deep understanding of the model and its relevance to them as learners. Each learning activity was designed to contain an element of challenge so that the boys could directly connect their experiences back to the *Learning Pit* model. The boys then applied the *Learning Pit* model to shorter challenging concepts and longer academic tasks. They reflected on its usefulness in relation to building the skills connected with academic resiliency such as self-confidence, organisation, control, composure, and persistence (Martin & Marsh, 2003).

At the completion of the project, each boy reflected on his learning and academic resiliency levels through various data collection methods. Qualitative data revealed that all boys could identify a time in which they had applied the *Learning Pit* model to an academic challenge over the 10 weeks. The model motivated them to utilize a range of strategies to help them overcome academic challenges in the future. Other outcomes included a reduction of stress and anxiety in relation to academic challenges, as well as an increase in self-efficacy. Providing an opportunity for the boys to reflect on their position in the learning process through the model was significant. Reflection enabled the boys to consider how their thinking had adapted, grown, or been reconstructed after overcoming learning challenges. Reflection time also empowered the boys to recognise their individual actions, emotions, and thought

processes that they usually revert to during the learning process, and how they have the capacity to change these for the better.

During this project I reflected deeply on my practice as an educator, specifically in relation to how I guide children to think and learn. I believe that having a concise, boy-friendly model of learning, one that can be applied to any learning task and that normalises the emotional journey of learning, whilst offering strategies to move through challenges in the learning process, is essential to educators of boys. Moreover, sharing vulnerabilities and reflecting on our individual behaviours, actions, and emotions during learning is powerful in building resilience as well as nurturing strong relationships.

This project has given me the platform to review our school-wide frameworks for learning and begin the process of creating a learning model specific for boys in our unique school setting.

Introduction

The 2017/2018 IBSC action research topic, *Adaptability in a Changing World*, provided me with the platform to explore learner behaviours, qualities, and perspectives associated with adaptability, while examining the relevance of being adaptable in relation to 21st century learning skills.

Researching and improving adaptability levels in boys at Wellesley College is imperative in order to succeed in our mission of bringing out the best in each boy: mind, body, and spirit. Wellesley College recently refreshed its school values. These values are consistently taught and referred to across the school and help to support and guide our students and teachers in the teaching and learning process. Despite these new schoolwide values, our motto, and school vision, there is a vacant space for a model that illustrates how we believe boys should tackle the learning process. Throughout the school, teachers and students use various frameworks for thinking; however, there is no singular boy-friendly learning model consistently employed by teachers to illustrate the actions, emotions, and thought processes associated with how we each learn. It is my belief that consistency in this area would allow 21st century learning skills and qualities, such as adaptability, to flourish within boys as they move through their education at Wellesley College.

A barrier to growing adaptable graduates is that adaptability and its attributes are not often explicitly taught in classrooms. Furthermore, some educators may assume that adaptability is something that boys simply “pick up along the way” in their educational journey. My experience suggests that to increase adaptability levels, boys require direct teaching and modelling of the concept alongside quality reflection time. The Ministry of Education (2017)

asserts that students who are allowed time to reflect on their role in the teaching and learning process are strengthening their own capacity to learn and adapt to change and challenge.

After analysing the concept of *Adaptability in a Changing World*, I contemplated the value of explicitly teaching a tool that would guide the boys through the challenging process of learning and then having them apply this tool to academic challenges. Could it enable them to bounce back from rejection, failure, mistakes, or setbacks in their learning and help them accept academic challenges and manage their emotions when faced with demanding learning situations? As a result, my action research project was focussed on answering the question:

How might applying the Learning Pit model affect academic resilience in Year 6 boys?

Applying Stringer's (2014) action research model of *look, think, and act* to my project was highly appropriate and effective. The flexibility of the model and its allowance for the researcher to move back and forth between the three stages provided natural opportunities to adjust and change teaching and learning where appropriate to ensure the efficacy of the project. The cyclical behaviour of looking, thinking, and teaching is reflective of the way in which teachers should ordinarily function in the classroom to deliver best outcomes for boys. In addition, the working principles of action research - relationships, communication, participation, and inclusiveness - embody the values of professional practice in education and epitomise effective teaching.

Literature Review

Meggison (1963) suggested that it is not the strongest of us that survives, but those who are most adaptable. This too, is true for our boys. Over the course of a school day, it is expected that boys will adapt to various challenging experiences, rules, personalities, circumstances, and social expectations, and produce satisfactory responses and outcomes each time.

Woodcock (as cited by The University of Kent, 2017) lists adaptability as a skill that employers seek in employees, while a recent report entitled *Workplace Resiliency* (Symes, 2014) suggests that by 2018 people will be recruited increasingly on their ability to deal with change and uncertainty. Hennessey (2017) argues that this is a gender specific issue and states that boys and men are largely not adapting to the changing job market; she describes this as a "problem for an entire gender" (para. 5).

The pressure to adapt well to changing situations has various effects on boys. Within the context of my classroom, I have observed contrasting reactions to the way different boys:

- bounce back from rejection, failure, mistakes or set-backs in their learning;
- accept academic challenges; and

- handle their emotions when faced with demanding learning situations.

Pollock (2017) notes that not all boys naturally adapt well when they face a challenge in the classroom and, rather than seeking help from teachers, they “act out” instead. He adds that over time, repeated experiences of frustration in learning can lead to depression in boys; for some, the consequences can be fatal. Pollock points to tragic statistics including that between the ages of 10 and 19, boys in the United States are four times more likely to take their lives than girls are, and over the last 20 years, these figures have increased by 300%. These saddening statistics are also reflected in the New Zealand context. A recent OECD report (Walters, 2016) states that New Zealand has the highest teen suicide rate in the developed world. Fortunately, there may be an answer for increasing boys’ ability to adapt: resilience. Resilience is crucial to success in today’s world (Bruce, 2013; Greitens, 2015; Oppong, 2017). Resilience refers to the process of, capacity for, or outcome of, successful adaptation despite challenging or threatening circumstances (Masten, Best, & Garmezy, 1990). Literature suggests that teachers who display caring behaviours, offer attention, and show respect for others have a large impact on the development of resilience (Bondy & McKenzie, 1999; McMillan & Reed, 1994; Sagor, 1996). Similarly, in a study on developing resiliency in children, the *Center on the Developing Child* at Harvard University (2017) describes how resiliency can be influenced by stable adult influencers in a child’s life. Therefore, educators are in a prime position to positively improve students’ resiliency levels, since a key aspect of their job is building and maintaining strong relationships with students.

My action research project focusses on academic resiliency, which is specifically related to educational development. Martin (2013) describes academic resiliency as the “capacity to overcome setbacks, challenges, and difficulties that are part of everyday academic life” (p. 488). Martin and Marsh (2003) associate specific attributes with low academic resiliency. These include having a perceived sense of low-control, self-sabotage, failure avoidance, and anxiety. While academic resiliency has strong links to a school setting, its importance is also paramount to life beyond the classroom.

Whilst much is written about the importance of academic resiliency, the specific tools and resources to improve academic resiliency are less resourced. It is suggested that fostering boys’ capability to be flexible through life’s stresses, so they can recover quickly from taxing experiences and achieve positive outcomes requires access to a variety of tools that cultivate resilience (Wong & Lee as cited in Tak, Chau, & Wai, 2012). *The Center on the Developing Child*

at Harvard University (2017) takes this further by suggesting that tools or initiatives that build a sense of self-efficacy and perceived control are critical for the development of resilience.

The *Learning Pit* model has the potential to be an explicit educator tool to cultivate resilience in boys. Developed by Nottingham (2017), the *Learning Pit* model is a visual framework for facing challenges in learning. Gurian and Stevens (2010) suggest that when working with boys, using graphics lifts the quality of boys' work, enables them to respond in more detail, and assists them to retain information and ideas more easily.

The *Learning Pit* has several distinct stages that enable boys to reach deeper states of learning. In their glossary of terms, New Zealand's Education Review Office (2016) defines the *Learning Pit* as "a physical place where a learner grapples with deeper thinking, challenging questions, and experiences a 'cognitive wobble'" (para. 8). Overcoming a "cognitive wobble" results in boys building academic resiliency. Additionally, the *Learning Pit* addresses the soft skills that scholars agree are essential to building academic resiliency, including growth mindset, emotional regulation, vulnerability, self-esteem, organisation, persistence and "grit" (Brown, 2015; Duckworth, 2017; Dweck, 2008; Nottingham, 2017; Martin & Marsh, 2006). Nottingham (2017) describes the *Learning Pit* as a tool that can be used to engage boys with the struggles they are facing, as at its core, its primary role is to make challenge more appealing to learners.

The *Learning Pit's* clear framework provides an opportunity for boys to plan and prepare for learning challenges. Driessen (2017) explains that having a structured and inspiring learning model is an essential component of boys' experiencing success at school. Furthermore, when faced with long and short-term challenges, boys' ability to persist and demonstrate resilience may be positively affected, as the framework normalises the emotional and mental challenges that come with learning. In their extensive worldwide study on boys' learning, Hawley and Reichert (2013) discovered that boys often cited that the most effective teachers were the ones that held them to high standards and convinced them that they could succeed in achieving them. The *Learning Pit* model has the potential to give boys a sense of control over their learning, keeping them in a state of composure in the face of a challenge.

The *Learning Pit* model is a relatively new tool in education and there is little research available on its long-term effects on levels of academic resilience. However, Rowe (2015) describes how Alexandra School in New Zealand uses the *Learning Pit* as part of their "learning to learn" toolkit. In an independent review of the school, the *Learning Pit* was listed as a tool used by children to develop skills and manage strategies when learning becomes difficult. Interestingly, there is also evidence that the *Learning Pit* can counteract what Martin

and Marsh (2003) refer to as “resiliency guzzlers.” For example, the New Zealand Ministry of Education (2017) recommends using the *Learning Pit* as a tool with students to help them work through perfectionism and anxiety issues.

The research indicates that using the *Learning Pit* as a tool with boys may positively affect levels of academic resilience. This action research project explores how Year 6 boys at Wellesley College utilize the *Learning Pit* as a strategy for building factors that Martin and Marsh (2013) associate with academic resiliency including self-confidence, organisation, control, composure and persistence.

Participants

Wellesley College is an independent Anglican day school located in Days Bay, Wellington, New Zealand. Boys come from many areas within the Wellington region including Lower Hutt, Upper Hutt, and Wellington City. Most boys are from mid to upper socio-economic backgrounds.

Wellesley College caters to the educational needs of boys from New Entrants to Year 8. The roll of only 350 students reflects the school’s tightknit family atmosphere. With a proud 100-year history, Wellesley College is passionate about boys’ education and strives to provide a boy-orientated, holistic education peppered with a rich range of activities and experiences to broaden our students’ worldview. Wellesley College’s motto *Victory Through Care* encompasses our school values: respect and empathy, risk taking in learning, and striving to reach your personal best.

The participants in my action research project were a mixed-ability group of 19, 10 to 11-year-old boys in Year 6. I taught this group of boys every day. The regularity of my interactions with the group helped to ensure that I conducted my project with depth and rigor. I selected this group because after two terms together, the boys had developed close bonds and were comfortable and confident in one another’s company. They were familiar with the classroom routines and expectations for teaching and learning and I knew all of the boys on a personal and individual level. This helped add to the accuracy and validity of data collection.

I obtained consent from the participants and their parents/caregivers through a letter which outlined the specifics of the project. I assured participants and parents/caregivers that the collected data would only be used for educational purposes specific to this research project. Throughout the project, anonymity was maintained by withholding the identifiable information offered during discussions and interviews, and by describing the participants as Boy A, Boy B etc.

The Action

I split the project's action phase into two stages. Stage one was four weeks in length and involved unpacking the *Learning Pit* concept. A multimodal teaching approach provided deeply engaging lessons that the boys could understand. This delivery included using video, drama, stop-motion animation, plays, art, and discussions to teach the *Learning Pit* model. The boys shared their learning progress in *SeeSaw* digital portfolios and written journals. The boys also performed in a *Learning Pit* class play during a whole school assembly. I allowed the boys to create their own version of the *Learning Pit*, which increased the ownership of their learning; this activity also served as a formative assessment to ensure boys understood stage one's content. In order to provide future reference and support, I shared *Learning Pit* video links, and together, the boys and I created a *Learning Pit* wall display.

The second stage of the unit was six weeks in length and involved applying the *Learning Pit* model to challenging concepts and academic tasks. I incorporated concepts such as fairness, fake news, and culture into three to four one-hour sessions. In addition to these lessons, lengthy, meatier academic tasks such as Genius Hour projects and the creation and delivery of speeches provided the boys opportunities to incorporate and reflect on the *Learning Pit* model.

Data Collection

During each stage of the project, I utilized an array of qualitative data collection methods. This was done to gather an accurate representation of the boys' perspectives on academic resiliency, to document progress, and to provide regular opportunities for the boys to make sense of their positioning in relation to academic resiliency. This triangulation of methods (Stringer, 2014) increased the authenticity of my results. Data collection methods included:

- Direct observations
- Field notes
- Student drawings
- Written reflections
- Work submissions
- Videos
- Photographs
- Interviews
- Questionnaires

Data Analysis

Prior to commencing the project, the boys completed Martin and Marsh's (2003) questionnaire in order to gain insight into their personal academic resiliency perspectives. The boys rated themselves in response to each question using a scale of 1-5 (strongly agree to strongly disagree). The results identified clear areas of strength and areas in need of development. I shared these data with the boys and sought their opinions to ascertain if their perspectives had been accurately captured.

I used drawings as a data collection tool to examine the boys' experiences and perspectives on two key areas: what they do and what they feel when they are faced with an academic challenge. Stringer (2014) advises that it is important for subjects to have the opportunity to define a problem or issue at hand in terms that "make sense to them, and he suggests drawings as an ideal medium. By isolating labels and notes attached to the drawings – collected units of meaning – these units were categorized and coded in order to glean an understanding of the boys' perspectives about what they do and feel when faced with an academic challenge.

I videoed group interviews and reviewed and transcribed the data using the verbatim principle. I incorporated reflection time into key lessons; as the boys shared their thoughts and perspectives with the wider group, I captured their ideas using field notes and videos. After the reflective discussions, boys could add to, or change their work submissions or recorded ideas if they felt it appropriate. At the completion of the project, each boy repeated Martin and Marsh's (2003) questionnaire, participated in group video interviews, and repeated the drawing task. These data were analysed using the aforementioned techniques and compared to initial data.

I collated all codes, categories, and themes on one document. The data were then cross-checked with the boys to ensure that a clear picture of their experiences had been recorded. All data methods and analysis processes were then rechecked twice to evaluate the accuracy of the collected data. I analysed the results to ascertain changes and development in the boys' perspectives on academic resiliency and to discern the success of the project.

Discussion of Results

After analysing, coding, and categorising the data, three key themes emerged that showcased how the project action affected the boys' academic resiliency. These were:

- Motivation to utilize strategies to overcome academic challenges

- Reduction in stress and anxiety related to academic challenges
- Increased self-efficacy through reflection

Motivation to Utilize Strategies to Overcome Academic Challenges

Initial group interviews revealed that some boys had a limited understanding of strategies they could utilise to help them overcome academic challenges. When asked what they do and feel when they are experiencing stress from schoolwork, Boy J said, “I usually just zone out and look out the window.” Boy T echoed this attitude of learned helplessness when he responded to a question on how he reacts to critical feedback on his schoolwork, by saying, “I don’t really even try to fix my work, I just sit around and do nothing.”

Post-project data revealed that all boys could identify a time in which they had applied the *Learning Pit* model to a recent academic challenge. Boy R said, “The main thing I learned was to use the strategies; keep on trying, problem solve, and practise,” while Boy L said, “Every time I think about a challenge, I think about what stage I’m at and where I am in the *Learning Pit*. Then I think about what I can do to get out of it.” Boy K added, “the strategies were useful as they helped us a lot with working through challenges during the year.”

When reviewing post-project drawings, more than half of the boys said that “asking for help” from a teacher, friend, or parent was a strategy they would employ to overcome a challenge. Additionally, most of the boys said that they would persevere with a challenge, accept, and work on critical feedback, and try harder next time when they received a low result. Other strategies identified in post-project drawings to overcoming academic challenges such as school-related stress and pressures, low results, and critical feedback included: reflecting, slowing down, calming down, double checking work, going back for a second time, going for a mindful walk, taking deep breaths, drinking water, reconsidering their thinking, studying, examining areas of weakness, taking a break, asking a question, remaining optimistic and looking back at the plan.

When asked how studying the *Learning Pit* affected the way in which they face academic challenges, Boy T said, “I’m not so lost now. Whenever I do something that challenges me, I go to the *Learning Pit*, and I follow the steps to see what I can do to get out of it.” This was echoed by Boy M who said, “Now we know what to do when we get stuck.” The post-project questionnaire reflected these statements, revealing that the majority of boys identified as knowing what to do to ensure they do well at school.

Reduction in Stress and Anxiety Related to Academic Challenges

Boys reflected on their thought processes in relation to academic challenges throughout the project. I observed that initially, challenges evoked feelings of anger, anxiety, and stress in the boys. In the pre-project questionnaire, many boys shared that they worried about upcoming

tests, they were not good at dealing with schoolwork pressures, and that low results affected their self-confidence. Some boys expressed an attitude of indifference towards academic challenges. For example, when asked in a pre-project interview how he feels when facing an academic challenge, Boy H stated, “If I’m stressed, I just push it [the task] away, and I won’t even do it, even if it means I get into trouble.”

Towards the end of the project, I observed a change in the boys’ descriptions of their thought processes and emotions when faced with an academic challenge. Boy T stated, “After I stop and think about what I have to do and create a plan, the stress seems to go.” While almost all the boys continued to describe initial feelings of anxiety and stress in relation to challenges, many described these feelings reducing or being eliminated after they applied one of the strategies. In his post-project drawings about what he feels and does when he receives a low result in his schoolwork, Boy A said at first he feels, “shock and horror,” and after applying the strategy of remaining optimistic, he then thinks, “oh well, I’m gonna’ work harder next time.” Likewise, Boy N, who also experienced initial feelings of stress and after applying a strategy, noticed a positive change, “At first I feel grumpy. Then I might ask for help, take a deep breath, and work on it.” This change in mindset was reflected in the post-project questionnaire where the majority of the boys said they don’t let stress from schoolwork get on top of them and most identified as being mentally tough and being good at dealing with schoolwork pressures.

In his final group interview, Boy T outlined how his reactions to academic challenges still involve an element of stress, but explained how this is now reduced: “At first I panic a lot at the start, and then I get myself under control. Then I focus. Sometimes I panic again, until I finally get it under control, and then I stay that way.” Similarly, Boy L described his experiences of experiencing stress in learning by, saying, “At first I feel nervous and annoyed, but then soon after I use the *Learning Pit*, and I get a different perspective or point of view.”

Increased Self-Efficacy Through Reflection

Initial data collected from the drawings and group interviews revealed a connection between the participants’ academic results and their self-worth. Many boys described feeling “bad,” “sad,” “worried,” or “stupid” in relation to a setback in their academic performance and were often concerned about the opinions of parents. Boy L said, “When I got a low score in my Maths test, I worried that Mum would be very mad.” Similarly, Boy J said, “you don’t want to fail ‘cause then you’ll get yelled at.”

On the other end of the spectrum, during initial data collection five boys stated that they “didn’t care” when they were faced with an academic challenge. When asked about challenging schoolwork, Boy J said, “I just really don’t care if I don’t want to do it.” I observed that many boys were also often very reluctant to be emotionally vulnerable and share how they truly experienced academic challenges.

During the project, these boys’ levels of self-belief and self-efficacy evolved. Over the course of several weeks, the boys were required to listen, share, research, and reflect on various academic challenges. I observed that the regularity of these sessions helped to normalise the “challenge factor” of learning, particularly when boys perceived as being “intelligent” by their peers, willingly shared their thought processes and feelings in relation to academic challenges. As more boys shared their experiences, I detected a notable shift. Boys who had previously connected a low score with low self-worth, began to see challenges differently, as evidenced by Boy A, who said, “I now think about the positives when I read feedback on my work.”

It was interesting to note that many boys said that these reflective discussions were the first opportunities they had been given to review their own thought processes and reactions in relation to academic challenges. Some boys who were more self-aware in considering how their thought processes had adapted, grown, or been reconstructed through applying the *Learning Pit* to challenges, took this further, as exemplified by Boy A who stated, “This is the first time I have really thought about how I could approach challenges. Like, when we drew those pictures about how we react, it was the first time I actually thought about what I do.”

The post-project questionnaire revealed that after studying the *Learning Pit*, half of the boys felt that they were now good at bouncing back from a low result. Over half said that they were now able to deal with schoolwork pressures and setbacks at school, and that they did not let a low result affect their confidence. All boys identified with the statement that if they if they tried hard, they could do their schoolwork well. During a group interview, Boy L summarised his new understanding of facing challenges by saying, “I’ve learned that not all challenges are easy to face and not every challenge you can figure out by yourself. Sometimes you’re going to need help.” Boy T echoed this by adding, “I’ve learned that you can always solve your challenges.”

Conclusion

This project enabled boys to experience success with shorter challenging tasks and to persist, despite difficulties, with long-standing academic challenges. Reflective discussions on their own and others’ experiences with failure, setbacks, and struggle raised awareness that learning

is rarely a tidy or linear process; it often involves going through several attempts of trying a new strategy and failing before “success” is reached. This new-found knowledge helped to normalise the turbulent storm of emotions that the boys often experienced during an academic challenge. In the future, I would like to spend more time unpacking emotional regulation, including reviewing the emotions and behaviours of indifference and helplessness that boys said they often experienced. I consider teaching emotional regulation as being useful in increasing the boys’ sense of control over their learning as well as increasing the level of value they place on their learning experiences at school.

The success of this project has future implications for the way adaptability is addressed at Wellesley College. My intention is to review the various frameworks for learning that teachers currently reference and begin the process of developing a learning model specific for boys in our unique school context.

I found Stringer’s (2014) action research model of *look, think, act* powerful in ensuring that lessons were intentional, purposeful, and based on gathered qualitative evidence. I would like to look at interweaving Stringer’s model into the way in which teachers plan, review their practice, and work towards achieving school wide goals.

Reflective Statement

I give gratitude to my mentor, Laura Sabo, for the time and effort she put into tirelessly reviewing my work, providing support, and offering feedback both in person and during our many Skype conversations; her efforts were invaluable in the success of my project. I would like to thank my Principal, Brendan Pitman, for his support with my application for this project. Lastly, I offer thanks to Andrew Herrick and the staff at Wellesley College for their support throughout my project.

Teaching is a highly complex role (New Zealand Teachers council, 2011). Coincidentally, participating in a year-long action research project at the same time as conducting my professional duties added to the multi-layered, complex and high stress nature of teaching. However, the entire process, challenges included, was both a fascinating and stretching experience that I am pleased to have undertaken.

In education, an effective teacher must be familiar and confident with their toolkit of strategies, reaching for just the right tool and applying it at precisely the right time in order to initiate learning, reflection or growth. Participating in this project confirmed my love of conducting action research. Throughout this process I have developed my practice, read

widely on issues that both limit and allow adaptability to flourish, and consequently have grown my toolkit of strategies for how I can best improve outcomes for the boys I teach.

I believe that Stringer's action research process enables researchers to develop a skillset that can be applied and transferred across many professional and personal contexts and when used effectively, can initiate deep and far reaching change. I find this very inspiring and look forward to conducting further action research projects in the future.

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