

THE ROLE OF SELF-DIRECTED LEARNING IN ECONOMICS IN DEVELOPING EMOTIONAL RESILIENCE AND ADAPTABILITY IN YEAR 9 BOYS

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Abstract

The purpose of this action research project was to assess the impact that self-directed learning (SDL) had on the emotional resiliency of boys. The research question explored how Year 9 boys' participation in SDL in Economics developed emotional resilience and impacted on their adaptability in the classroom. Pre-post surveys were used to measure the impact of the action on student resiliency and assess the boys' understanding of how to behave in an entrepreneurial way. Reflective logs and focus interviews were used to collect data over a six-week period. Key themes that emerged from the data included the importance of optimism, a sense of control, meaningful feedback, and an increase in self-sufficiency. Overall, the SDL project resulted in a net positive experience from both a teacher and student perspective.

Introduction

Self-directed learning (SDL) is essential in assisting students to become adaptable and meet the challenges presented in the workplaces of the future. Educators have an important role to play in assisting their students to acquire the skills for SDL, and to do this they need to understand the concept of self-directed learning. The aim of this research was to explore the concept of SDL and its relationship to developing emotional resiliency in boys' education. With this in mind, I investigated the following research question: *How might Year 9 boys' participation in self-directed learning in Economics develop emotional resilience and impact adaptability?*

School, much like life, comes with its ups and downs; some great achievements juxtaposed by setbacks where our boys must react, respond, and demonstrate their own level of resiliency to what life might throw at them. In the context of my school, the importance of "knowing what to do when you don't know what to do" is becoming increasingly important. There are many boys who thrive on the being directed and being shown what they need to learn and study so they can do well in their next assessment. They thrive on being given the necessary revision materials that channel them to do well on the next test, with little value placed on the problem-solving and navigating their way through a learning challenge. SDL provides these boys with such an environment, where rote learning for tests is put aside and the students

develop their skills in collaboration, communication, creativity, and the ability to adapt when things do not go as planned.

In any sport, when a player has a poor game, they often know what they need to work on in the future. They practice that skill, so the outcome is improved next time. In simple terms, they adapt to improve their practice. SDL is about taking ownership of learning and making a commitment to be a lifelong learner. To commit to being a life-long learner, one needs to be open to new teachings and exercise a degree of adaptability. As a character trait, adaptability is essential to an individual's emotional health and achievement.

Literature Review

Adaptability

Adaptability is the capacity to adjust one's thoughts and behaviours in order to effectively responds to uncertainty, new information, or changed circumstances (Martin, Nejad, Colmar, & Liem, 2013). Individuals who are adaptable display behaviours such as the ability to work well under pressure, and to fine-tune timelines and expectations appropriately when needs change (National Institutes for Health, 2015).

Adaptability is a crucial part of problem-solving, collaboration, and a range of other workplace skills; thus, many employers seek out employees who exhibit the ability and willingness to adapt. Research by Levin (2015) stresses the importance of cultivating adaptability among students to prepare them to enter the workforce and thrive in tomorrow's dynamic workplace. Levin adds that teaching students to be adaptable helps to ensure future economic productivity.

Adaptability assists boys to stay motivated during periods of difficulty. A longitudinal study by Martin et al. (2015) shows that high school students who demonstrate adaptability are less likely to fail in comparison to students who lack adaptability. Adaptable students are better able to regulate their own educational setting and thus avoid behaviours such anxiety, uncertainty, and procrastination, which increase the likeliness of academic failure.

Adaptive behaviour refers to everyday coping with environmental demands and includes the skills of daily living that people need to function effectively (Grossman et al., 1992). It refers to a boys' ability to adapt to changes, explore new places and situations, recover from negative emotions, and exhibit positive emotions while interacting with others (Reynolds & Kamphaus, 2004). Within the classroom, an adolescent's adaptability is measured through their ability to adjust to changes in routine and teacher assignment and their ability to shift from one task to

another (Reynolds & Kamphaus, 2004). Two behaviours that influence a boys' ability to adapt are procrastination and his level of anxiety in the classroom.

Anxiety is one of the most common behaviours affecting student well-being and the ability to adapt. Anxiety problems are defined by recurrent, excessive, intense and overwhelming fears, and worries about everyday things (American Psychiatric Association, 2013). Anxiety problems are likely to continue with many adults reporting their anxiety problems began in childhood (Donovan & Spence, 2000). Students with anxiety also appear to have problems with inhibited or rigid behaviour, and difficulties with controlling their thoughts and emotions (Eisenberg et al., 2010). A heightened sense of anxiety reduces a boy's ability to think and act effectively under pressure and to make necessary adjustments succeed in the task at hand.

Procrastination is another behaviour that influences a student's ability to be adaptable. Traditional views of procrastination characterise it as a self-handicapping behaviour that detracts from individuals' productivity, learning, and overall achievement (Steel, 2007). More specifically, academic procrastination is the unnecessarily delaying of decision-making or actions necessary for the tasks and assignments that a student intends to complete (Wolters, 2017). Boys who effectively self-regulate their learning and manage their time should not needlessly delay their completion of required academic activities, especially if it impedes progress toward important learning goals. Therefore, it would be expected that boys who show evidence of increased and more effective time management would tend to thrive in a SDL environment based on the premise that this environment requires students to be ready to learn, set learning goals, engage with the learning, and evaluate their learning on an ongoing basis.

Emotional Resilience

In order to be adaptable, one needs to demonstrate a certain amount of emotional resilience. Emotional resilience can be described as a process of "individual 'ups and downs' whereby successful clients dynamically alter and improved their tendency toward healthier emotional-organisations" (Pascual-Leone, 2009, p. 122). It can be more commonly described as how one rolls with the punches and how he handles and adapts to stressful situations. Pascual-Leone describes a sequential model of emotional processing where an individual is required to exercise a certain level of "assertive anger" required to embody a positive self-evaluation. Assertive anger is a healthy sense of entitlement that organises people to assert their sense of self-worth and assists in creating a positive mindset (Dweck, 2015). Emotionally resilient people understand what they are feeling and why. They persist and believe that they are in

control of their lives, and they are optimistic and believe in their own strength. They do not see themselves as victims. They see obstacles as challenges, and they understand adversity is something that will make them stronger (Dweck, 2015).

One factor in supporting emotional resilience is personal control. Children look up to the adults around them for guidance and accept those adult behaviours as the standard. Support and modelling and what Brooks and Goldstein (2003) call *islands of competence* are ways adults can assist students develop personal control. If an adult can help a student see an island of competence in his own world, that sense of success can then be transferred to other contexts, leading to a stronger sense of resilience. As students develop an understanding of their islands of competence, they feel more in control.

Students who are provided with some choice in their own education are more likely to feel some control. Providing choice to students is important. Edward Deci (1996) argues: “The main thing about meaningful choice is that it engenders willingness. It encourages people to fully endorse what they are doing; it pulls them into the activity and allows them to feel a greater sense of volition; it decreases their alienation” (p. 32). A choice could include giving options on how to present a task or allowing students to choose a topic of study. That sense of independence helps motivate them and increases their chances of complete the task on their own.

It is important for learners, in particular boys, to be motivated to engage in the lesson. Much of this engagement is dependent on the lesson design. Reichert and Hawley (2010) found that the most effective lessons were “not for the boys to simply locate the correct answer; but to formulate a solution according to their own research and best insights” (p. 107). In an attempt to design a body of work that is attractive to adolescent boys, this quote gives weight suggesting that a SDL approach is appropriate for boys.

Self-Directed Learning

Is it possible for a classroom to exist where students are teaching themselves? The Global Digital Citizen Foundation (2017) article, *Why Self-Directed Learning Practices Make Us Better Learners*, describes self-directed learning (SDL) as “the conscious, willing, and continuous growth of intelligence....as students “taking ownership of learning” (para. 2). Another common definition from the Centre of Teaching Excellence (CTE), as cited by the Global Digital Citizen Foundation, outlines four key stages to independent learning. These four stages include: being ready to learn; setting learning goals; engaging in the learning process; and evaluating

learning. Both definitions describe the importance of the ownership of personal learning goals, path, and strategy.

This level of ownership is synonymous with independent learning. Independent study requires a deep approach, in which students must understand ideas and be able to apply knowledge to new situations (Hattie & Donoghue, 2016). Students need to generate their own connections and be their own motivators. One way to do this is for classroom teachers to place a greater emphasis of learning for “transfer,” rather than simply learning to master new content (Hattie & Donoghue). Transferability is a critical skill that our young men need to have in a modern society. In order to be adaptable our young learners need to be equipped with transferrable skills. John Hattie’s (2016) Model of Learning is a framework that promotes deeper learning and highlights the importance of transferrable skills and will be used as a conceptual framework for this research.

The aim of Hattie’s (2016) model is to move students from a learning environment that focuses on surface to deeper forms of learning with the aim of transferring this learning, where students can apply these new skills and understanding to a new context. The CTE describes surface learning as “reproducing; learn only what is required to complete unit in good standing by regurgitate examples and explanations” (as cited in Global Digital Citizenship Foundation, 2006, para. 6). In contrast a deeper approach to learning involves “understand[ing] ideas for oneself and being able to apply knowledge to new situations” (Global Digital Citizenship Foundation, 2006, para. 7). Learning that promotes transfer is most ideal for self-directed learning. A boy who exhibits transferrable skills has an increased likeliness of being more adaptable.

Marton (2006) claims that transfer occurs when the student learns strategies that apply in a certain situation such that they are enabled to do the same thing in another context when they realise that the second situation looks like the first situation. He claimed that not only similarity might connect situations to each other, but also subtle differences. Detection of these differences is critical for the transfer of learning.

Research Context

Aquinas College aims to educate boys to become the men the world needs. Since 1894 its purpose, in partnership with parents, is to provide a Catholic education for boys in the Edmund Rice tradition. The college in Perth is Western Australia’s oldest and most respected boys’ colleges and is located on an elevated 62-hectare property, overlooking the Canning River. The school accepts day students from Kindergarten to Year 12 and boarding from Years

7 to 12. The Aquinas College motto – *Veritas Vincit* (Truth Conquers) – is at the heart of the College and is the basis by which the college’s character education program (named Veritas) is based.

The research involved twenty-two Year 9 students and myself (the teacher). The participating class comprised volunteer students of mixed academic ability. I selected these students using purposive sampling to include a spread of learning support students (low ability), EDGE students (gifted and talented), boarding students and international students. This selection method provided a broad perspective of the student experience during this action research study. While not all of the Year 9 students were able to participate in the study, the research allowed the College to use this experience as part of a broader curriculum to develop increased resiliency to our broader College community during the 2018 academic year.

I provided students and their parents a packet which included an information letter and consent form outlining the proposed study. Students were not compelled or pressured in any way to take part in the study and there were no consequences for non-participating students. Participants could withdraw from the study at any time with all contributions made to the project removed from the findings unless specifically agreed to by the participant. All participants were guaranteed anonymity in any reporting from the study. A statement of anonymity and confidentiality was included in the letter of consent.

The Action

The duration of this SDL project was six weeks. Following the distribution of the introduction packet, the boys began a four-step process in self-directed learning. They gathered on four occasions per week, which provided suitable contact time during this data collection period.

First, the boys assessed their readiness to learn by completing a pre-test survey on their level of adaptability and their understanding of what it is to be entrepreneurial. These surveys were valuable as they collected data on the boys’ readiness to take risks and level of comfort when they faced problems with learning tasks.

Secondly, the boys set their learning goals by negotiating and writing up a learning contract with some assistance from myself. The key features of this learning contract included: the goal/aim of the innovation project; the sequence of tasks/activities required; a timeline of completion for each task; resources materials needed to complete each task; personal reflections on task feedback; and requests for follow up meetings with myself to discuss progress.

Thirdly, each student formed a partnership (there were two groups of three as well) to commence their innovation task. This included: the development of a suitable innovation project idea; an outline of the costings; a marketing plan; and a personal statement reflecting on the development of entrepreneurial skills. Some of the innovation ideas included: Pool Patrol (a child safety pool device), Park Finder (an app identifying local recreation facilities), Hover Eats (using drones to deliver food to households), and SkateSurf (a device that doubles as both a surf and skateboard).

Finally, each team presented their innovation idea to a Year 9 audience and the teachers from the Humanities department.

Data Collection

The collection of predominantly qualitative data included pre and post questionnaires, semi-structured interviews, and reflective logs completed by students and the teacher.

I gathered baseline data prior to the start of the action. Boys completed a questionnaire that included 50 self-report statements designed to determine the strengths of certain personality traits and to promote self-improvement by presenting possible areas of limitation. The questionnaire responses gauged the boys' perspectives on their level of adaptability, self-control, self-sufficiency, optimism and persistence in the classroom. The boys also completed an entrepreneurial questionnaire designed to assess the personality traits associated with entrepreneurial ability, in order to provide insight into the current qualities possessed by each student. These personality traits included achievement striving, industriousness, passion, creativity and the ability to take control. I surveyed the boys again at the end of the data collection phase.

I conducted interviews with small focus groups of 2 to 4 boys, which allowed for the collection of a number of student experiences with their innovation task. The small focus group size allowed for good conversation without any boy being too dominant in the discussion. This structure was also beneficial as it kept the volume of data that needed to be transcribed to a minimum. Two focus group discussions were conducted with each group. To reduce transcription demands, the boys completed a summary sheet after each focus group meeting, responding to writing prompts that related to the interview questions. These written summary sheets provided each focus group member a check of discussion points raised during the student interviews. I recorded each interview using a smartphone, allowing me to be present in the moment.

I monitored the emotional resiliency behaviours of the boys using a reflective log. The log included my observations of student engagement in the classroom and videorecording of student responses to stimulus materials (i.e. entrepreneurial scenarios). I often checked notes assessing resiliency during the project and commented on my own thoughts on teaching in a self-directed learning environment. I used semi-structured interview questions as basis for my journal entries and reflections.

This research aimed to measure the emotional resilience and adaptability of boys engaging in self-directed learning. The Adaptability Scale is one excellent survey used to measure student adaptability (Martin, Nejad, Colmar & Liem, 2013). The scale contains nine items evaluating cognitive, behavioural, and emotional adaptability. Using a Likert scale response format, the boys rated themselves on a scale of 1 (strongly disagree) to 7 (strongly agree) for each item. Previous measurement work (e.g. Martin et al., 2012) has shown that the scale functions well when the three types of adaptability (cognitive, behavioural and emotional) are combined into an overarching adaptability factor given that they are highly interrelated.

Data Analysis

I analysed data from the reflective logs, questionnaire responses, and student interviews using three key components: data reduction, data display, and drawing and verifying conclusions. The data analysis process followed the Miles and Huberman Framework (Punch, 2005). Data reduction transformed the transcript from the teacher log and student interviews into meaningful form. This process included editing, segmenting, and summarising the data. I displayed the data in tables to summarise the results from each of the responses. This display helped me draw conclusions. Coding was used to analyse the data during the reduction and display phases. The initial coding was of descriptive nature to highlight key information. Inferential coding was then used to develop themes and identify issues that arise from student participation in the inquiry task.

Discussion of Results

Following the data reduction, display and coding, key themes emerged that described how the innovation task action influenced the boys' emotional resiliency and adaptability. These themes were:

- Increased levels of **optimism** as the task progressed
- Improvements in **self-sufficiency** through engagement in self-directed learning
- Seeking **timely feedback** to enhance or maintain confidence

- **Control** over a situation and its outcomes affects perception of positive and negative events.

Optimism

The focus group interviews in the early phase of the project revealed that some students had a limited understanding of methods they could apply to help them overcome feelings of being overwhelmed by the innovation project. When asked how they feel or respond when they are concerned with one of the tasks, Student R said, “I usually lose concentration and do other stuff like going to YouTube.” Student M supported this view of learned helplessness when he responded to a question on what he first does after reading the requirements of the task, by saying, “I don’t really know where to start. First, I do nothing and then look for other things to do to get me to the bell (end of the lesson).”

The likelihood of the students to look upon the innovation task with positivity and to work in a self-directed capacity grew during the project. This observation was reflected in classroom observations and recorded in the teacher reflective log. Some of the key indicators that reflected this growth in self-directed learning included the nature of the questions that the boys were asking and their confidence in adjusting their action plans when task progress dates needed to be adjusted. This finding was also represented by those students who were already quite optimistic during the pre-test survey. For example, those with high optimism were more likely to look upon difficulties with hope, perhaps promoting a greater level of persistence during the innovation task or when faced with challenging circumstances. This is reflected in Student C’s comments where he stated, “I wish I could set my own deadlines with all my assignments. If I fall behind in my innovation task, all I need to do is readjust my mini-deadlines to make sure our team is ready by the presentation date.”

Self-Sufficiency

Student perception of improvements in intrinsic motivation and efficiency of work completion were also evident from the findings. The nature of the entrepreneurial task explicitly allowed the students to be motivated by their desire to achieve goals and to be able to use their time effectively in order to progress further. The use of the learning contract (action plan) allowed for the monitoring and tracking of these set goals. This is also the case with entrepreneurs. They are responsible for their own work hours and set their own deadlines meaning it would be easy to underachieve if they lack initiative, as there is no one to answer to when tasks are not completed.

The nature of the learning experience allowed the boys to work autonomously without the need for instruction from their teacher to complete a task. Although direction was required for some students on occasion, many boys exhibited a confident and capable attitude when undertaking the innovation task, whether the work required a team effort or individual attention. The post-project questionnaire revealed that after completion of the innovation task, thirteen of the 24 participants felt that they had improved in their ability to engage in self-directed learning. Fifteen students said that they were now able to develop their own deadlines (using the action plan) and felt that this would help them with navigating their assessment schedule with all courses as part of their regular schooling. The overall confidence of this group of boys grew throughout the project.

When asked how developing the action plan influenced the way in which they faced each of the tasks in the innovation project, Student O said, "I now have a plan. The project doesn't seem so big when I break it up into parts. Whenever I come across a task that is difficult, I look at the strategies and resources section of my action plan for some guidance and that usually helps. My teacher helped me develop some of these resources." This was reiterated by Student C who said, "I now know what to do when I am lost." The post-project survey supported these sentiments, revealing that the majority of boys were more comfortable in the self-directed learning process after completion of the all the tasks.

Seeking Feedback

Another finding that developed from the interviews was the identification of the relationship between seeking feedback and feeling a sense of self-sufficiency. During a group interview, Student J said, "Not all tasks are simple and you cannot figure out everything by yourself. Sometimes you need help from one of the group members or the teacher to progress." Student S supported this sentiment by adding, "With the right help at the right time we can move this project forward." Despite the self-directed nature of the project, the importance of timely feedback was identified to as a means to be more self-sufficient and emotionally resilient.

When reviewing their innovation idea, more than half of boys said that seeking assistance from the teacher, team member, or parent was a strategy they used to be more persistent during the innovation task. On the whole, most students said that they would persevere with an issue and were open to feedback from their teacher. Other strategies identified through focus group interviews to aid perseverance with the innovation project included: negotiating deadlines, reviewing draft work, seeking feedback, identifying areas for improvement, writing

focus question to guide research, and engaging in personal reflection on the action plan (using the reflective log).

Control

As the innovation project involved tasks that were completed in teams of three, a collaborative approach and ability to work in teams impacted emotional resiliency. To some extent each boy was aware of his personal role in the project through the action plan. The learning contract (action plan) highlighted their "locus of control" which described the way each boy credited certain events during the project to themselves or to other external factors (their team members). For example, those boys who believed they had high levels of control were likely to attribute task success to their own abilities, rather than to fortune. Those same students seemed to make more rational decisions, when faced with complications or difficulties during the project. This was evident during the project when the boys used a decision-making matrix to determine their most suitable innovation idea. This helped frame up the negotiation process for a number of groups as each team member was required to develop criteria and an importance weighting as to what constituted a "good" innovation idea. Student M said, "I loved the matrix coz [because] it stopped us fighting over which idea was best. To vote on each criteria made the process fair and allowed us all to have our say." This activity resulted in individual judgement or behaviour to be less likely to be affected by emotions or desires. What also emerged during the research was that those students who exhibited high levels of self-control, had the ability to remain focused when given certain tasks, particularly those they felt considered uninteresting.

Conclusion

This research focused on the impact of self-directed learning and its relationship to developing emotional resiliency in boys' education. SDL has many benefits. This research study has highlighted a number of benefits, including increased levels of optimism, self-sufficiency, control, and the important link between receiving timely feedback and confidence.

However, acquiring the necessary skills is dependent on a student's preference and readiness for SDL and the teacher's implementation. Through the analysis of the my reflective log, I recognized that SDL requires a rethink of how the classroom operates, the key objectives on the lesson, and the role the teacher plays during the lesson.

Following this research project, I would like to acknowledge a few points for consideration when engaging in a SDL experience with boys. First, the teacher becomes the facilitator of

learning. To do this well, requires significant ongoing professional learning. Secondly, a variety of teaching methods should be used in delivering content, as not all students are naturally self-directed. Thirdly, the learning style of each boy and their readiness to learn need to be assessed when judging the appropriateness of using SDL.

Despite this, the research highlighted the benefits of SDL, including increased confidence, self-sufficiency, and motivation to learn. It is likely that any classroom teacher that adopts this approach as part of an overall learning program will see their students' capacity grow over time.

Reflection

Upon completion of this action research project, I reflected on a number of areas. These areas relate to myself as a teacher, the boys that I work with both in and out of the classroom, and the action research process itself.

Regarding the action research process, I felt that the process filled the gap that often exists between theory and practice and helped me develop new knowledge directly related to my classroom in my own school context. Secondly, action research creates a sense of personal empowerment. It was great to be able to collect my own data to use in making decisions about the future direction of the project and my own teaching in general. It felt liberating to be in an educational environment where my students and I were allowed to take risks and make changes related to teaching and learning. I also found this process an effective and worthwhile means of professional growth and development.

My students were cynical and almost frightened about negotiating their own learning journey during this unit of work. However, as the weeks wore on the boys got used to this style of learning and understood my role as facilitator a little more. The thought of not being told exactly what to do became more comfortable a proposition as time passed in the project.

As a teacher, I reflected on how often I am usually instructing my boys and not allowing them to make their own decisions, mistakes, and grow from each learning experience. It was nice to step away from the usual teach-learn-assess-report cycle and try something a little different. It certainly was a rewarding experience.

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