PRODUCTIVE COLLABORATION THROUGH TEACHING OF PERSONALITY

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Abstract

Successful collaboration gives access to different thinking, experiences, solutions, knowledge and skills, and will be an integral factor in the lives of boys in the 21st century. As we look towards solutions to increasingly complex global issues, we need to ensure that our future leaders are equipped with the necessary skills to work together to problem-solve. My action research project was aimed at teaching cognitively gifted boys about personality traits in order to develop a better understanding of themselves and others so as to work more productively in teams. For six weeks in Term Three of 2016, sixteen Year 6 gifted boys from The Hutchins School learnt about the personality traits of introverts and extroverts and applied their knowledge to group learning through a series of competitive, team challenges. The positive results supported the explicit teaching of personality traits as it related to group learning and empowered the boys to problem-solve and create effective team skills through deeper levels of empathy and understanding.

Glossary

For the purpose of this project, the following are defined as:

Collaboration: A team of boys working interdependently to achieve a common goal. Significantly, the team must engage in discussion and debate. Decisions ultimately need to be made collectively with evidence of negotiation.

Gifted: The gifted program at The Hutchins School draws upon Francois Gagné's (1985) work to define "gifted" as those students who have a natural aptitude in one or more domains that places them in the top 10% of their aged peers. For this program, those who were found to be in the top 10% of the intellectual domain were identified as gifted.

Personality traits: Attitude traits of extroversion and introversion; an individual orientation to the world. Extroverts gain their energy from engaging with others while introverts recharge their energy in solo pursuits. Ambiverts are found to have a combination of both introvert and extrovert qualities.

Da Vinci Decathlon: A team-based academic competition (initiated by Knox Grammar School, Sydney, Australia) that is designed to challenge gifted students. Tasks are taken from the following: creative producers (drama performance), art and poetry, general knowledge, cartography, maths and chess, code-breaking, ideation, engineering challenge, science, spelling.

Introduction

The 21st century landscape is changing dramatically. There is a growing expectation in schools, workplaces, and society that we work smarter to ensure the survival of humanity. In order to solve the myriad global issues, we must work collaboratively: in society as a whole, as educators in schools, and as students in classes. Successful organisations recognise this phenomenon and demand that employees are team players. In reflecting these changes, the recently redeveloped *Australian National Curriculum* emphasises the importance of personal and social capability. In developing social competence, we urge our students to work towards high levels of proficiency in key areas, one of which is working effectively in teams. The topic of "collaboration and the power of learning groups" as the focus of the action research program of the International Boys' Schools Coalition was indeed timely.

Gallagher, Smith and Merrotsy (2010) state that students who are gifted require a differentiated, challenging environment and opportunities to collaborate with like-minded peers. As I continued my work with the Year 6 Gifted and Talented class at The Hutchins School, my observations suggested that their group learning was ineffective. The aim of my action was to provide opportunities to challenge boys' thinking and encourage their progression into ethical, caring, future leaders.

From my own professional experiences as a facilitator of collaborative learning communities, I know that not all teams are equally successful. Lencioni (2014) notes, "Like it or not, all teams are potentially dysfunctional. This is inevitable because they are made up of fallible, imperfect human beings" (para. 1). Undoubtedly my own observations confirm that without careful thought, planning, and skill-building for group work, there was potential for failure. I observed that not all boys in my Year 6 class were natural collaborators. Some dominated the discussions and loved verbalising their thoughts and opinions, while others sat quietly reflecting and contemplating, but were not forthcoming in group discussion. My dilemma, therefore, was how to ensure that all boys had equitable access to the discussion and sharing of thinking. I theorised that if all the boys in the class had a voice it would make for a richer,

more robust and challenging discussion, thus further enhancing everyone's learning. In considering how I might, therefore, structure the collaboration to be powerful and engaging and mindful of individual differences, my research question was born: *How might learning about personality traits assist Grade 6 gifted boys to be productive members of a collaborative learning group?*

The true collaborative nature of action research empowered and enabled the boys to take an equal part in the process and, therefore, as key stakeholders, develop a shared knowledge and understanding, thus being part of the solution. Action research provided the perfect platform for me to launch real change in my classroom.

Literature Review

It is well established in educational literature that what a teacher does in the classroom has a direct influence on student achievement. The way we structure our lessons, our pedagogical approaches, and when and how we use group learning, all impact on the way our students learn. Marzano (2012) strongly advocates for teachers to become truly reflective practitioners. The skill of being reflective is extensively used in many professions in order to build expertise and should be similarly used in the challenging vocation of teaching. Action research provides educators with the perfect opportunity to do just that, ensuring that our practice is informed and evidence based.

Reflection is particularly critical in the work we do at Hutchins with our gifted and talented boys. As a school, we ponder how best to meet the needs of this particular group of boys, when we know that typically the needs of gifted students are not generally met in education (Davis, Rimm & Siegle, 2011) and that for many, there may be serious repercussions if they are not extended cognitively (Dweck, 1999). It seems obvious, and is well supported by the literature, that students left academically unchallenged will work well below their true potential with serious repercussions to their self-esteem (Winebrenner, 2001).

In order to support the social and emotional development of Hutchins' boys and to ensure we are providing them with a developmentally appropriate curriculum, our students are identified and invited to participate in regular withdrawal extension lessons with like-minded peers. A study focusing on primary school-aged students (Eddles-Hirsch, Vialle, Rogers & McCormick, 2010) recommended ensuring not only the provision of a differentiated program to cater for gifted students, but also the opportunity to work collaboratively with like-ability

peers. Within my Year 6 extension class of gifted students, I provide opportunities for the boys to work individually and collaboratively either through individual or group challenges.

The transition from working solo to group work has proved daunting for some boys. Notes Kessler (2016), "Gifted learners are asynchronous in their development. There can be huge differences between a gifted child's physical, intellectual, social and emotional development" (para. 11). While some gifted boys can sound like scholarly professors, it is important to remember they have the social emotional development of children. Not everyone is a natural collaborator with effective communication and negotiation skills. Similarly, not everyone enjoys working in teams and, therefore, group work can often be far from a resounding success. More forthright boys dominate the conversations and quieter boys are often not heard and yet, "American educational groups have endorsed a paradigm of learning that requires subdividing the classroom and putting kids to work in active, flexible, inquiring hands-on teams" (Harvey & Daniels, 2015, p. 51). Australia is no different. In the classroom and on the sporting field, within an orchestra or on a stage, we value and honour team players.

Employers demand that employees have the necessary skills to work as part of a team. Amongst the abilities that employers are currently demanding of their future employees, the capacity to collaborate ranked in the top seven in Business News Daily (Taylor-Fallon, 2015), Graduate Careers Australia (2016), and Forbes Magazine (Adams, 2013). Harvey and Daniels (2015) refer to preparing students "for a society where the Lone Ranger is quickly giving way to the Team Player" (p. 48).

In the K-12 social skills training meta-analysis that Durlak and colleagues conducted in 2011, there was heartening news for educators and employers alike. Children can be taught to work collaboratively and, in doing so, can show improvement in academic achievement levels of up to 11 percent (Harvey & Daniels, 2015). What I began to see as the factors hindering successful group work: lack of true interaction, a failure to listen to each other, domination by a few and a lack of group cohesion (Kaplan (2014), could and should, therefore, be remedied by explicit skill building.

At the very beginning of this research journey, Susan Cain's book, *Quiet* (2013) resonated strongly with me. Her work on introverts and extroverts encouraged me to view my class from a different perspective. I had two highly gifted boys who displayed a significant number of introvert qualities and so their ideas, counsel, and opinions were rarely voiced if the groups

were left to their own devices. Cain prompted me to reflect on society's promotion of an extrovert's characteristics of forthrightness, quick decision-making, assertiveness and dominance to the detriment of an introvert's traits. Cain argues that exhibiting the traits of reflective thinking, deliberated decision making, and preferring to listen rather than talk, had over time come to be seen as a weakness and a trait that was less than desirable. I began to reflect upon the group work in my classes differently by considering classroom interactions through the lens of extrovert and introvert personality traits.

While the impact of personality on team performance is well studied, the research findings are varied (Olson, Ringhand, Kalinsk & Ziegler, 2015). Extroversion was one of a number of personality traits explored by Olson et al., but given the complexity of the human personality, it was difficult to isolate particular variables, thus contributing to the inconclusive or contradictory results. Significantly, however, individuals displaying a sound understanding of their own personality contributed considerably to the success of collaboration through more effective communication, building of trust, and a greater level of interdependence (Varvel, Adams, Pridie & Ulloa, 2004). Not only is having a deeper understanding of your own personality beneficial, but knowing the traits of your teammates enables teams to work more productively (Cannon-Bowers, Tannenbaum, Salas & Volpe, 1995). If the boys within my class were able to better understand their own personalities in the form of introversion/extroversion, I hoped that their engagement and therefore collaborative interactions would improve.

The use of action research to find effective solutions through empowering and giving a voice to the boys was a perfect fit. The project allowed me to analyse the problems at play and intervene directly to ultimately improve my boys' collaborative skills and, in turn, their achievement (Mill, 2007). As I began to contemplate the project, I looked for "boyworthy" tasks that would engage the boys. In their own research for the International Boys' Schools Coalition, Reichert and Hawley (2013) highlighted the introduction of an "element" in order to hook the boys. I chose the novelty of the Da Vinci decathlon tasks as they aligned well with strategies that motivate boys to learn: an action orientation, competitive elements, a host of hands on, varied disciplines, and choice. The Da Vinci tasks are designed to be both intellectually stimulating and highly engaging; perfect for the boys in my class who thrive on challenge. As Kessler notes, "Cognitively gifted children need to be immersed in their learning, steeped in their interests, and challenged to think" (para. 13).

Throughout my literature search I could find no explicit studies exploring the effects of teaching personality traits to gifted boys. I was therefore keen to add to the current understandings as well as increase the effectiveness of my lessons and enhance the future of each of the boys.

Research Context

The Hutchins School in Hobart, Tasmania is a non-selective, independent, Anglican boys' school with an enrolment of approximately 1000 boys from Kindergarten to Year 12. The school consists of three mini-schools on a shared campus and is located in a middle to high socioeconomic area. The majority of students are from an English-speaking background. Established in 1846, Hutchins has a 171-year long tradition of boys' education. The school's motto, *Vivit Post Funera Virtus* – Character Lives After Death, epitomises the emphasis on building young men of character shaped by faith, learning and service to the community. While the school is single-sex, girls from two co-operating schools share selected classes in Years 11 and 12.

The participants in this research project were sixteen boys aged ten to eleven years-old who were previously identified as being cognitively able and who attended regular, timetabled extension classes. I had worked with these boys in the preceding year and had developed a strong relationship with them. While the students had been selected for the gifted and talented program, they were a diverse group of boys with varying interests, strengths, and emotional intelligence. They had little prior knowledge of the research topic of personality traits and, reportedly (from both the class teacher and confirmed by my own observations), had varying degrees of success in group work. All of these boys were invited to participate in the research through an information pack that was sent home to boys and parents/caregivers. Informed consent detailed the project's background, objectives, authorization of media and anonymity of participants. All boys were given an option of withdrawing at any time from the project without consequence.

The Action

For the purpose of this project, the boys participated in two Da Vinci Decathlon Academic Gala days, six weeks apart with two double lesson interventions after each competition day. Based upon my previous observations, the boys were formed into mixed personality trait teams of four. The competitive, challenging, active nature of the tasks was a great fit for these

boys. Prior to the commencement of Day 1, I asked the boys to complete a questionnaire I designed in order to identify their attitudes towards working collaboratively. I was keen to have their perspective and for them to voice their experiences throughout the project. At the conclusion of each assignment, I asked the boys to reflect upon the teamwork via a modified series of questions, which aimed at gauging the efficacy of the group in relation to each particular problem they undertook. Throughout the tasks, I encouraged the boys to jot down personal reflections about the effectiveness and challenges of their team. The week following Day 1 of competition saw the boys complete Susan Cain's extrovert/introvert survey. I then taught them about the personality traits, leading to discussion about the possible repercussions for teamwork. Day 2 was similarly interspersed with teamwork activities, questionnaires and reflections. The work culminated in the formation of focus groups, which allowed the boys the opportunity to deliberate on the intervention and offer their insights and advice.

Data Collection

Qualitative data formed the backbone of this project as they were able to provide me with the flexibility to gain a clear understanding of the boys' perspectives and experiences in group work. The data collection was ongoing and designed to gather the information from an insider's point of view. As Stringer (2014) notes, "The process of talking about their experiences provides people with rich insights that enable them to achieve greater clarity about events and activities in their lives" (p. 102).

I instigated three distinct phases of data collection. At the outset, I invited the boys to complete a baseline data survey using a variety of question types: Likert-scale responses on a 5-point scale; questions requiring a written response; rating scales 1 – 10; and open-ended responses. This allowed the boys to express their feelings, thoughts, and suggestions about group work in general. Comparing the data pre- and post-action highlighted the changes in thinking that occurred. The boys completed the surveys online through Survey Monkey. For responses that were vague or shallow, one-on-one follow-up individual interviews gave me the opportunity to question and clarify the intent of the response. In these and all interviews I worked to ensure a variety of questioning techniques. Open-ended, "grand tour" questions allowed the boys scope to express their thinking in their own terms; "typical" questions that encouraged them to give thought to how things usually worked for them, and then "specific" questioning that focused on specific elements within the project. When additional

information was needed, "extension' and 'encouragement" questions prompted the boys to articulate their thinking to a deeper level (Stringer, 2014).

As part of the intervention and second phase collection, the boys undertook a personality trait self-analysis, where they gained a rating according to the qualities of introverts and extroverts. Reflection surveys after each of the three task sessions on Days 1 and 4, presented additional insights into the way the boys worked. Both of these days were video recorded as were follow up interviews with each of the boys. Photographs were taken throughout Days 1 and 4 and participant observation notes further added to the data.

In the final post-action data phase, small focus groups based on common personality traits were formed to gather data through a series of open ended questions, allowing each boy to express his experiences and opinions. These interviews were videoed. The ten tasks of the Da Vinci Decathlon were competitive in nature with accumulating team points. This allowed the comparison of Day 1 teamwork with Day 4.

Data Analysis

At the forefront of my mind during both the collection and analysis phase, was ensuring the boys' voices were heard. In order to make meaning of the data from all three phases, I read, reviewed, classified and coded them into emerging themes. Participant observation notes were coded into feelings and actions. One-on-one recorded interviews were annotated and, like the reflection surveys, were coded according to themes. Likert-scale responses and ratings were collated as numeric values. The entirety of data provided a deeper narrative about the boys' perceptions and experiences in group work and therefore offered the initial direction for the intervention as well as ultimately informing the level of the project's success. In order to make meaning from the data, "interpretational analysis" was used. Emerging patterns and themes were identified. Using various forms of collection guaranteed a triangulation of data (Stringer, 2014). The boys' voices were paramount and given the highly articulate nature of these students, a high level of discourse was recorded and transcribed. The analysis responses were manually sorted and constantly related back to the question.

Discussion of Results

Heightened Self-Awareness

A number of predominant themes emerged during the analysis. Surprisingly, the pre-action data indicated that almost half the boys considered teamwork easy for them. An equal number agreed with one boy's comment that, "Sometimes it's difficult to work in teams while at other times it's easy." Initially, only two boys saw group work as challenging and most boys enjoyed group learning. Overwhelmingly the boys highlighted the makeup of the group as the major contributing factor for affecting their satisfaction with teamwork. As noted by one boy, "I think we should choose our own teams because then we'll work well if we are working with people we want to work with." Only one boy suggested that, "We might need to work with a group that the teacher chooses because that's what sometimes happens in life." Despite their preference to work in groups of their own choosing, the boys understood the necessity of working in teams constructed by me.

Figure 1: Summary of responses to: Working in a group is generally hard for me
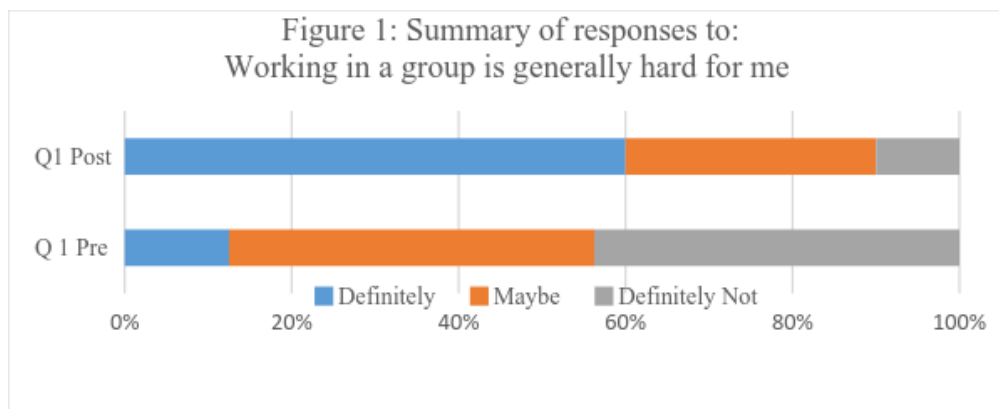
Post-action data (Figure 1) saw the boys take a more realistic view of teamwork and a growing acknowledgement of the effort required in teamwork. A rather insightful boy remarked, "Sometimes working in a team is difficult, you (and your team) have to cooperate very well to succeed. It may be hard to cooperate, but it pays off in the end." This was reinforced by twelve boys, who changed their thinking to reflect the reality that working in teams can be hard work. One boy lamented, "We have to listen to everyone otherwise the team collapses," while yet another stated, "I've really learnt how to work in a team now." The majority of boys saw the value in mixing up the teams to gain "valuable life experiences," and to "use everyone's strengths." This discussion was summarised by the boy who noted, "I think we need to work with different people, to help us later in life."

Collaborative Skill Acquisition

The data regarding prerequisite skills for productive learning groups illustrated a similar trend of mismatch between reality and perception. Initially, almost half the boys rated themselves as having the necessary skills for collaborative teamwork. Ten out of the sixteen boys considered they had some level of understanding of the way an effective team worked. Ten participants said they focused on the work. Thirteen of the sixteen boys said they ensured everyone had an equal voice and the same number saw themselves as making sure everyone contributed. Twelve boys agreed that they spoke more than they listened, while the remaining four noted that they invariably listened significantly more than they spoke.

Figure 2: Summary of responses to :
I have a good understanding of the way a team might work effectively.
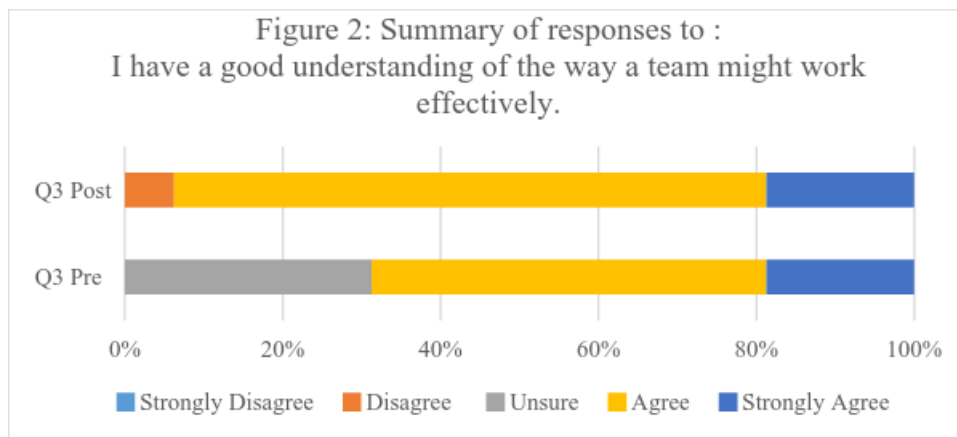
My experience of teaching this cohort of boys and the driving force behind this project originated from the boys' struggle to collaborate effectively. As evident in Figure 2, the vast majority of boys felt they had acquired the prerequisite skills for working successfully in teams despite observations to the contrary. Five out of the sixteen boys reported the need to be upskilled. Through immediate self-reflective feedback and timely interviews after each challenge, the boys came to a more realistic picture of their collaborative skills and ultimately adjusted their practice. When asked to consider what needed to change in their teams to ensure powerful collaboration, thirteen boys highlighted "focusing on the task," while eleven boys talked about everyone "participating." Eight boys highlighted "listening" as a skill that needed to improve while seven boys identified "talking to each other" as something that needed to be implemented for successful collaboration. Ten boys expressed concern that not all teammates had an equal voice or fully contributed to the group.

Sharing the data with the students gave the boys permission to make changes to the way their teams worked as the activities progressed. The light bulb moments as boys realised not only what was required to make the team work, but the part they had to play, was encapsulated by one boy's comment, "Everyone has to do their bit to make it work." The competitive nature of the Da Vinci tasks and its appeal to boys meant that they were motivated to improve their teamwork to ensure they gained maximum points. They could see the value of working more productively and were obtaining a greater awareness of how to do that through the highlighting of the necessary skills of collaboration. As the project progressed, I could see some boys trying different strategies within their teams to help the group maintain a higher degree of focus. For example, one boy prompted, "Let's everyone take a role so that everyone is joining in. Who wants to be the timekeeper?"

Deepening Knowledge and Building Empathy

It is widely accepted that personality styles impact upon the way we work (Cain, 2013). Introverts take time to work deliberately, while extroverts move quickly into decision-making mode. Identifying their own trait and explicitly teaching strategies to cater for those preferences was greeted with positive responses: "Finding out about extrovert, introvert and ambivert was really interesting, I think it will help me to get to know people better," one of the boys enthused.

Without exception, the boys rated Day 2 of the Da Vinci task as being overwhelmingly successful with the vast majority referencing personality traits as a significant factor in that success. "Teamwork is easier when you know each other. That means you know their personality," and, "Knowing about personality traits helps people work together better," were reflections from two boys. Eleven boys mentioned knowing how others worked meant they could be more efficient as a team, while eight spoke about the value of relationship building through knowledge of each other, leading to better ideas, and a willingness to learn more from each other. "Playing to their strengths" was a common theme that kept emerging. Each of the four teams told of the strategies they devised to ensure that all team members had a voice and remained fully engaged. One boy shared, "We passed around the 'talking eraser' so whenever you had that, you spoke and everyone had to listen." Seven boys discussed the measures they implemented to enable introverts more thinking time and voice, with one boy sharing, "We made sure that people had more time to think or write things down before we made decisions."

Enhanced Engagement

The boys acknowledged that working together was hard work and began to recognise group work as more challenging but equally more rewarding. As the project progressed, the boys were more realistic in their self-assessments as they deepened their understanding and experience. Heightened self-awareness was widespread. "I learnt that I was not so good at working in a team when I started," commented one of the boys thoughtfully. This acknowledgement meant that they could work on building the skills necessary to ensure a more productive learning environment. Their skill acquisition, deepening knowledge, and empathy played out as groups problem-solved ways to ensure focus, voice, and participation in their teams.

The changes in the boys' attitudes to working in a group were palpable and no more evident than in one boy's advice: "I think you should do this with all boys in our year level. Not just us. Everyone will benefit from learning about personality traits and ways to work in groups." Overwhelmingly, the boys' voices loudly proclaimed the success of the intervention. As one boy concluded, "On the second day we worked together much more productively, our team was much more focused and everyone had a voice. Everyone in the class did as well. It was very different from Day 1!" While the overall team scores on Day 1 were diverse, spanning a 30-point range, Day 2 saw scores within 1.5 points of each other. The boys', my own, and my teaching assistants' observations were unanimous: Day 2 saw highly productive collaborative learning groups. "Are these the same boys that attended Day 1?" was the question asked by an observer of both days; "they are all working so well together!"

Conclusion

"Teaching boys well can be likened to a dance ... while someone leads and another follows, the partnership involves both people united in common purpose, finely attuned to each other's moves" (Reichert, & Hawley, 2009, p.3). Growing more awareness of individual's preferences, the boys certainly improved the "dance." It was clearly evident that explicitly teaching about personality traits did indeed assist Grade 6 gifted boys to be much more productive members of a collaborative learning group. The boys came to view teamwork differently. "It's very important in a team that you are not three or four separate entities but that you mesh together and become one mind for the group to work best," was an insightful reflection from one of the boys. Their heightened awareness of both themselves as members of a team and the way others worked enabled them to move towards becoming more effective

collaborators. Developing their knowledge of personality traits, the boys showed increased empathy towards their teammates and adjusted their behaviors accordingly. A significant number of boys reported a rise in collaborative learning skills, which in turn lead to enhanced engagement across all of the learning groups.

Implications for Future Practice

Holding a mirror to my own practice and encouraging the boys to do the same will certainly become a regular feature within my work. Strategically planning to use a simple action research cycle will ensure I can retain effective teaching practices and change those that have little or no impact. Highly reflective boys, who can work to self-assess more accurately, will have a voice to become part of the solution.

Teaching boys about personality traits coupled with reflective questioning about learning groups will be something I incorporate at the outset of each school year. The Year 6 boys asked that I share this practice with their class teachers and peers. That having been implemented successfully, I extended the offer to include the Middle School boys at Hutchins.

Implications for Future Research

As we promote and protect our practice of gifted students at Hutchins, we must remain cognisant of the asynchronous development of our gifted boys. Given that explicit teaching of collaborative skills and personality traits has been so successful in this project, it would be beneficial to replicate with other classes of gifted boys throughout our school. Potentially, the teaching of such would significantly enhance our gifted program. The positive outcomes of this project were demonstrable after only four sessions. Future research might involve replicating the project with larger, heterogeneous classes of boys to see how similar the results might be.

Reflection Statement

Kurt Lewin, the very influential social psychologist credited with coining the term, "action research," was quoted as saying, "If you want to truly understand something, try to change it" (Macdonald Group, 2017, para 1). My work through the IBSC Action Research - Collaboration and the Power of Group Learning undoubtedly supports this notion. Through becoming a change agent to improve the learning outcomes of the boys I teach, I have certainly strengthened my knowledge and expertise. This was my first experience of action

research and I am a firm convert. I have already begun working through the next cycle of research with all of the Year 6 classes and continue to be a fervent believer in the power of stakeholder voice to ensure real change.

My action research journey has been truly inspirational and enlightening. Sharing this learning experience and being motivated, guided, and truly supported by our amazing team leader, Laura Sabo, has been incredible. So ably led by Margot Long and Laura, I have been constantly amazed and energised by my global friends – my fellow researchers and by the ongoing work of the IBSC. Their wisdom, generosity, and dedication to honing their craft continues to inspire and make me further appreciative of this incredible professional learning opportunity.

At Hutchins, we are more fortunate than most with such a strong background in IBSC action research. The generosity and vision of the school to send two participants each year owes much of the thanks to the advocacy of Wayne Brown, something for which I will be eternally grateful. Attending an international training / conference with four of your colleagues has meant that the close bonds formed, continue at school, with each of us supporting those that come before and those after. It is an exemplary model of highly effective mentoring and collaboration. My special thanks to Wayne Brown, James McLeod, Erik Marr, Keith Martin-Smith, Ellie Panarettos, Jill Abell, Kate Reid and my ever-supportive husband, Andrew Jones. The support and guidance of these people has been invaluable. The journey has been long and not without frustration, but certainly an experience from which I have gained priceless knowledge and understanding.

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