School libraries and gifted students: Guiding inquiring minds

By Bridget Forster

Snapshot

Bridget Forster outlines the very successful online program at Strathcona Baptist Girls Grammar School that supported students to explore and develop a new skill across a ten week period. Using The Kulthau inquiry method to support their process the gifted and talented students investigated a skill with the aid of an expert as mentor. This work received the 2020 SLAV Innovators Grant.

I recently took on the combined role of Teacher Librarian and Enrichment Co-ordinator, the intersection of the two roles became quite apparent. The first lockdown in 2020 allowed me to interrogate these theoretical convergences in a practical context.

Theoretical context

In 2016, ALIA and the Australian School Libraries Association (ASLA) issued a joint statement regarding the provision of library and information services in schools. This was not a new endeavour, but rather a revision of a longstanding policy, first created in 1989. In the updated statement, the organisations affirmed the integral role that school libraries play in:

- *contributing to the enrichment of academic success*
- *developing information literacy and inquiry-based learning skills*
- *fostering literature and reading programs*
- *ensuring collaboration and networking opportunities* (ALIA 2019)

Although school libraries enrich academic success as a specific aim, arguably the latter three functions also contribute to academic success through the development of skills and aptitudes that drive and enhance learning. The purpose of the statement was both to advocate for school libraries, which have experienced a decline in numbers and funding, and to set clear success criteria for effective libraries. Although the functions listed in the joint statement benefit the entire school community, they are particularly pertinent to gifted students. The focus on information literacy, inquiry, collaboration and networking closely align with the recommendations of gifted theorists.

School libraries, by fulfilling the roles set out in the joint statement, are strategically placed to cater to gifted and talented students. It is acknowledged that the word 'gifted' is a contested term. The Victorian and Australian Curriculum Authorities subscribe to Gagne's model (2008), defined as students who have outstanding potential in one or more intellectual, creative, social or physical domains (estimated to be 10-15% of the population). Gagne asserts that such potential must be supported by other factors, such as effective teaching and personal motivation, in order to transform into a talent, defined as an above-average level of skill. Joseph Renzulli's Three Ring

model (2005) holds that giftedness relies on a combination of above-average levels of ability, creativity and commitment to a task. To this end, his Enrichment Triad model advocates for the provision of three types of extension: the exposure to a variety of experiences, topics and experts, such as guest speakers and excursions; the development of thinking skills, including through the use of advanced level reference sources; and extended investigation of a self-selected topic through inquiry and self-directed learning.

Research and inquiry for gifted learners – International exemplars

The development of information literacy and inquiry-based learning skills is an area particularly suited to the educational needs of gifted students. Gifted students thrive when tasks offer a suitable level of challenge and complexity, and allow students a degree of independence and choice, allowing them to pursue their interests. Information literacy is an area known for its complexity, and skills are difficult to attain, requiring persistence and expert instruction (Kulthau 2015). In fact, research undertaken by Stanford University into Fake News suggests that even college students struggle with basic skills in evaluating sources (Donald 2016). Similarly, Willison and O'Reagan from the University of Adelaide have created a Research Skills Development Framework to address the lack of basic research and evaluation skills in undergraduate students (2019). It is acknowledged that even post-graduate students require skill development in areas such as defining research topics as the basis for independent inquiry. Guided Inquiry projects, with information literacy instruction embedded in the process, lend themselves to student selected topics, offering the requisite independence and choice. A number of schools have adopted this approach as a means of extending gifted students.

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At McNair Middle School in the United States, the Librarian and Gifted Education Teacher collaborated to design, implement and refine an independent research project in which students had a high degree of autonomy. After completing a survey to audit their current skills, students embarked on a project to attain a new skill in a discipline with which they had no prior experience (Thompson & Seward 2012). Adopting a similar model, Repinc and Juznic's action research focused on using Guided Inquiry Projects as a form of enrichment for gifted students (2013). Mixed age groups of students from 11-15 undertook a complex research project that culminated each year in an entry to the Slovenian National Tourism awards. Students researched their local area for the purpose of designing an effective advertising campaign to promote their area. The project followed Kulthau's inquiry framework (2015), and included a mixture of independent research, structured interventions and explicit instruction (Repinc & Juznic 2013). The use of mentors and experts external to the school was an important aspect of both projects.

Academic Librarians from the South Alabama Biomedical Library, Rossini, Burnham and Wright (2013), ran a summer enrichment program for highly-able high school students from minority backgrounds focusing on transferable information literacy and research skills. Although students did not choose the focus of their study, project topics were refined each year to better cater to student interest, thus research on health care careers was replaced by investigations into dating violence and teen obesity.

Research and inquiry for gifted learners at Strathcona

While schools went into lockdown in Term 1, Strathcona's regular suite of Enrichment Activities and Excursions for gifted students was cancelled. This left a unique opportunity for students to embark on an Independent Learning Project from the comfort of their own homes. Inspired by the work of Thompson and Seward (2012) at McNair Middle School, we developed a program that challenged students to 'Develop an Entirely New Skill' in just ten weeks with the help of an expert. Eighteen of the twenty students offered the challenge accepted. Students pursued a broad range of interests including wood whittling, photography, Auslan, time-management and creating sustainable fashion.

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Students were introduced to the Guided Inquiry Framework (Kuhlthau, Caspari and Maniotes, 2012) and were taught specific skills pertinent to each step (e.g. search skills, evaluating sources, reading techniques) during weekly coaching sessions via the Microsoft Teams platform. They also spent at least two hours per week practising their new skill. Students used their own networks and approached organisations and guilds to find an expert in their chosen field to mentor them. Experts included a master carver who worked on the restoration of Windsor Castle; the CEO of an App Design Company; and a number of professional artists and musicians. Students received feedback on their process at several points during the challenge.

Students were exposed to a range of possibilities before they began their projects. In our first formal meeting, students were shown a list of potential areas of investigation before meeting in small groups and brainstorming their own suggestions. The best of these were shared with the wider cohort. Interestingly, most students veered towards topics suggested by their peers, although beginning with a list was a crucial jumping off point. Students were then introduced to a range of sources with which to begin their search; these included school databases, Futurelearn, iTunesU, Lynda (formerly available through public libraries), and the State Library of Victoria. After exploring possible courses and fields of exploration online, students documented where they had browsed and listed their top three topics, singling out the one they were most excited about pursuing. In a subsequent session, students worked together to narrow down and define their topics. The sentence stem, "How might I....in order to..." helped students to focus their inquiry.

Students researched the best way to learn and develop their skill; for some this was via an online course and for others it was by consulting online forums or reading articles and books. Each potential resource was documented with an accompanying evaluation. To help them to navigate the web more effectively, students were taught how to compile search terms, and use correct syntax to target their search queries. They also learnt about accessing the deep web through searching archives and online repositories. The various stages of the research process presented opportunities to provide explicit instruction on source evaluation, reading strategies and note-taking in a relevant context. Students also came to realise that people with expertise can be one of the richest sources of information.

Students used their own networks and approached organisations and guilds to find an expert in their chosen field to mentor them. (Strict child safety requirements were put in place to safeguard this process.) Before approaching experts, students participated in a brief letter-writing workshop, enabling them to write a polite request with clear and finite terms of commitment, while conveying their enthusiasm for their chosen field of endeavour. Writing with appropriate formality was another skill honed by this process.

As students began to learn about and practise their skills, they documented their progress in a weekly learning journal entry in OneNote. Photographs of failed crafting attempts, handwritten research notes, summarised mentor feedback and transcripts from interviews were all posted in what became a patchwork of learning. The brief reflections that accompanied these entries were often insightful as students thought deeply about their approach to learning and the intersection of success, failure and persistence.

How Inquiry supported collaboration and networking at Strathcona

The project was unique in that it called for students to look beyond the confines of their campus for sources of learning and expertise. This led to fruitful partnerships with leaders in industry, technology and the arts. Students gained useful skills in networking by approaching experts and asking for mentorship; they also drew from the connections of their families, peers and teachers. When one student wondered how they might find an expert in architecture, another mentioned that her father was an architect. Other students received helpful recommendations of professional photographers, music producers and artists they might wish to contact from our visual and performing arts staff. Parents also helped with enlisting experts; calling on childhood friends who were now CEOs, aunts working in the fashion industry, and work colleagues specialising in iPhone photography, thus broadening the learning community far beyond the school campus.

As this challenge required a substantial time commitment from students to practise their selected skill at home, parents had the opportunity to become more involved in their daughters' learning. John Hattie (2009), noted that while the influence of parental involvement in education varied according to type, students consistently benefited from the encouragement and expectations of their parents. This type of positive involvement was evident in the program. Parents and siblings not only showed their support recruiting mentors, they also sourced wood whittling tools (soft wood carving), modelled clothing (sustainable fashion), taste tested cakes (cake decorating) and travelled to deserted city locations at night with their daughter (film-making). Therefore, in many instances, a student project became a family collaboration.

The primary collaboration was of course between student and expert mentor. The important role of expert mentors to support skill acquisition is affirmed by Lev Vygotsky in his writing on 'The More Knowledgeable Other' (McLeod, 2020). Students received helpful feedback and encouragement from their mentors during lockdown via a range of communication methods such as email, telephone, online platforms and Microsoft Teams. One student filmed her crafting technique and received feedback, equipment suggestions and demonstrations from her expert via the educational video platform Flipgrid. Students were inspired to learn from people who were passionate about and skilled in their field, and the exchanges between mentors and students undoubtedly contributed to their learning and motivation. Students also learnt invaluable social lessons, such as valuing mentors' time, showing consideration by being prepared for meetings, and thanking them appropriately.

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Finally, students collaborated with each other in weekly small group meetings throughout the project. Each group met in its own Microsoft Teams channel, where they shared their successes and challenges each week. They also used a shared Microsoft Task Manager page to set weekly goals and monitor their progress. Students found that having tasks visible to the whole group increased their motivation and brought a communal aspect to the often-solitary task of practising and mastering a skill.

Outcomes

The challenge culminated in a Digital Showcase, in which students proudly presented their work and process to the Year 8 Cohort. Students and teachers participated in an Auslan workshop, watched digital art and photo editing demonstrations, and tried out the basics of crochet as part of the showcase offerings. The presentations were well-received by students and staff, and the student presenters were gratified by the encouraging feedback offered by their classmates.

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gained as self-directed learners. Their development was evident through their reflections after completing the challenge:

"I learnt that it was okay to take it one step at a time and that I can't get really good at something in a day. It takes time but if I put in the work I can do it."

"I learnt that I need to encourage myself to do work and set a task at the start of the week to complete, otherwise I just procrastinate all week."

"I learnt that I can do a lot of things and that in only 10 weeks I can learn a whole new skill that I didn't know I could be any good at."

"I learnt that although [learning something new] may look complicated, it may be much easier than it looks."

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The ASLA and ALIA joint statement regarding school libraries sets out a compelling case for the tangible benefits libraries bring to their school communities. By providing opportunities for independent inquiry, research and collaboration, school libraries are uniquely placed to cater to equip and challenge gifted students.

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