High Potential and Gifted Education Strategy
(updated November 2023)

Context:

Sydney Technical High School is a fully selective high school with enrolments usually around 920. 2023 SCOUT data reports that 93.9% of our boys are LBOTE. 100% of our HSC candidates transition to university to pursue undergraduate degrees in tertiary institutions in many states but mostly in metropolitan Sydney. The DoE's new HPGE Policy was provided to schools in June 2019. An early adopter of the evaluation and planning for this implementation, members of STHS's HPGE Team conducted the following tasks between 2018-2021:

1. All Faculties were provided with copies (hard and soft) of the new policy and the accompanying Literature Review conducted by CESE. All teaching staff were asked to provide a written reflection statement on what the new policy means to them as a practitioner at STHS as well as, fully realised, their vision for the impact of this policy.

2. Teaching staff were surveyed as to their experience in teaching HPG students and their specific training/licensure in this qualification.

3. 7-12 students were surveyed seeking their input around experiences as selective students and their own perspective of 'What works best'.

4. Volunteer students were identified from this survey and participated in focus group interviews where more detailed information was obtained. This qualitative data is currently being transcribed.

5. Sentral-identified underachievers were also participants in a similar but nuanced focus group session. This qualitative data is currently being transcribed.

6. Across the three strategic directions for our 2021-2024 SIP, a recognised commitment to full implementation of the *High Potential and Gifted Education Policy* (2021) is documented and addresses the needs of our students, chiefly through the informed skills and experiences of our teaching staff.

7. Teaching staff were surveyed about their knowledge and understanding of HPG T&L strategies that are applied by them/faculty/school. In July 2020, 42 teacher responders submitted professional qualification data through our own school-based questionnaire. The DoE's own HPGE Attitudes and Teaching Practices Survey (ATPS) was distributed amongst staff again in Term 1 2023. Pre vs post-data summaries are as below:

2020 (42 teacher-responders)	2023 (29 teacher-responders)
69% have in excess of ten years of experience as a teacher	53% have in excess of ten years of experience as a teacher

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46% have in excess of ten years of experience as a teacher in (partially or) selective high schools	53% have in excess of ten years teaching high potential/gifted students
Approximately 60% of responders report confidence in their knowledge of the needs of selective students and are confident of meeting these in their classrooms.	More than 80% of responders identify that teachers, leaders and school support staff require ongoing professional learning to improve the growth and achievement of HPG learners.
43% have no formal licensure/training in the needs of high-potential and gifted learners.	60% possess additional and recognised qualifications in the teaching of HPG learners.
UNSW's Mini-COGE is the most popular professional learning undertaken by STHS staff with 30%. STHS does also have staff with post-graduate studies at Masters and PhD level in this field also.	25% possess postgraduate experience/qualifications in the teaching of HPG learners.
Staff (significantly) identify CESE's *What Works Best* (2020 update) practices of high expectations, explicit teaching and feedback as the most impactful within our context for improving student achievement. Affirmingly, these were also most common when head teachers articulated the specific strategies that are regularly employed in their faculty when delivering 2019 HSC Analysis.	Differentiated teaching and alternatives to summative assessment of HPG students were more prevalent in 2023 with staff reporting that formative assessment occurs on most days in their teaching. Teachers identified a need for more PL around improving their practices in pre and post assessment for authentic change to instruction, programming, resources etc.

In April 2023, after the finalisation of the 2022 Annual School Report and analysis of the ATPS data, the HPGE Evaluation and Planning Tool was used to assess where our school is currently at in its overall progress towards an immersive implementation of the policy. Its results are as follows:

Corresponding SEF v2 domain & theme		Self-evaluation
1.1.1 – High expectations and effective, explicit, evidence-based teaching create optimal learning environments where all students are challenged and engaged to achieve their educational potential		
Learning domain	Learning culture → High expectations	SUSTAINING & GROWING
Learning domain	Curriculum → Curriculum provision	SUSTAINING & GROWING
Leading domain	Educational leadership → High expectations culture	SUSTAINING & GROWING
1.2 – Assessment and data are used in an ongoing manner to inform learning and teaching across all domains of potential: intellectual, creative, social-emotional and physical		
Learning domain	Assessment → Formative assessment	SUSTAINING & GROWING
Learning domain	Assessment → Summative assessment	SUSTAINING & GROWING
Learning domain	Assessment → Student engagement	SUSTAINING & GROWING
Learning domain	Assessment → Whole school monitoring of student learning	EXCELLING
Learning domain	Reporting → Whole school reporting	EXCELLING
Teaching domain	Data skills and use : Data use in teaching	SUSTAINING & GROWING
1.3 – High potential and gifted students from all backgrounds have access to quality learning opportunities that meet their needs and aspirations		
Learning domain	Student performance measures : Internal and external measures against syllabus standards	SUSTAINING & GROWING
1.4 – High potential and gifted students across all domains require evidence-based talent development to optimise their growth and achievement		
Learning domain	Curriculum → Teaching and learning programs	SUSTAINING & GROWING
Learning domain	Curriculum → Differentiation	SUSTAINING & GROWING
Teaching domain	Effective classroom practice → Lesson planning	DELIVERING
Teaching domain	Effective classroom practice → Explicit teaching	SUSTAINING & GROWING
Teaching domain	Effective classroom practice → Feedback	SUSTAINING & GROWING
1.5 Learning environments which support the social-emotional development and wellbeing of high potential and gifted students enable them to connect, succeed and thrive		
Learning domain	Learning culture → Transitions and continuity of learning	EXCELLING
Learning domain	Learning culture → Attendance	EXCELLING
Learning domain	Wellbeing → Caring for students	EXCELLING
Learning domain	Wellbeing → A planned approach to wellbeing	SUSTAINING & GROWING
Learning domain	Wellbeing → Individual learning needs	DELIVERING
Learning domain	Wellbeing → Behaviour	EXCELLING
Learning domain	Reporting → Student reports	EXCELLING
Learning domain	Reporting → Parent engagement	EXCELLING
1.6 – Engagement with quality research and ongoing professional learning builds teacher and leadership capacity to improve growth and achievement for all high potential and gifted students		
Teaching domain	Data skills and use measures → Data literacy	SUSTAINING & GROWING
Teaching domain	Professional standards → Improvement of practice	SUSTAINING & GROWING
Teaching domain	Professional standards → Accreditation	SUSTAINING & GROWING
Teaching domain	Professional standards → Literacy and numeracy focus	SUSTAINING & GROWING

1.6 (continued)		
Teaching domain	Learning and development → Collaborative practice and feedback	DELIVERING
Teaching domain	Learning and development → Coaching and mentoring	SUSTAINING & GROWING
Teaching domain	Learning and development → Professional learning	SUSTAINING & GROWING
Teaching domain	Learning and development → Expertise and innovation	SUSTAINING & GROWING
Leading domain	Educational leadership → Instructional leadership	SUSTAINING & GROWING
Leading domain	Educational leadership → Performance management and development	SUSTAINING & GROWING
Leading domain	Educational leadership → Staff deployment	SUSTAINING & GROWING
1.7 – The department supports differentiated and evidence-based procedures, programs and practices for growth and achievement of all students, including high potential and gifted students		
Learning domain	Student performance measures → Value-add	EXCELLING
Learning domain	Student performance measures → Student growth	SUSTAINING & GROWING
Teaching domain	Data skills and use → Data analysis	EXCELLING
Teaching domain	Data skills and use → Data use in planning	EXCELLING
Leading domain	School planning, implementation and reporting → Continuous improvement	EXCELLING
Leading domain	School planning, implementation and reporting → School plan	EXCELLING
Leading domain	School planning, implementation and reporting → Annual report	EXCELLING

HPGE policy overview:

The policy aligns with contemporary research in many fields regarding the development of talent. Gagné's model illustrates the importance of the role educators play. If a high-potential or gifted student is underachieving, the model supports teachers to identify the cause of the underachievement. Similarly, the model provides teachers with pathways to support talent development.
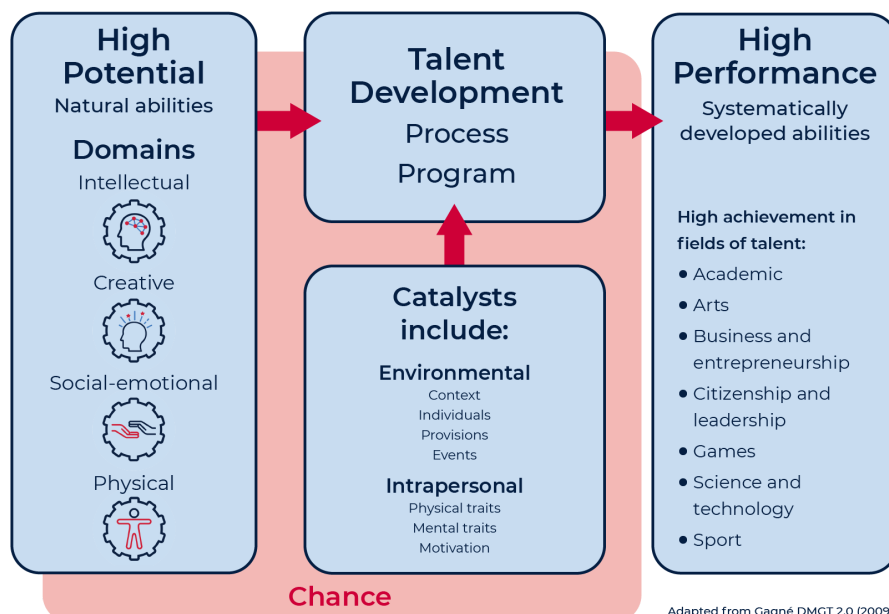
Adapted from Gagné DMGT 2.0 (2009)

Key actions:

- [Evaluate](#) school procedures, programs and practices, and analyse student growth and achievement data to inform school planning and policy implementation.
- [Assess and identify](#) the specific learning needs of all high-potential, gifted and highly gifted students.
- [Implement](#) evidence-based procedures, programs and practices that meet the learning and wellbeing needs of all high-potential and gifted students and facilitate talent development.
- [Collaborate](#) with families, school communities and the wider community to enhance growth and achievement for all high-potential and gifted students.
- [Build teacher and leadership capacity](#) through engagement with quality research and ongoing professional learning on effective practices to improve growth and achievement for all high-potential and gifted students.

Learning characteristics:

High-potential students are those whose potential exceeds that of students of the same age in one or more domains: intellectual, creative, social-emotional and physical. This potential will develop into talent if educators recognise student potential and use evidence-based talent development to optimise their growth and achievement.

These characteristics, listed below, may be found in all learners but are strongly evident in high-potential and gifted learners. Conversely, not all high-potential and gifted learners will display all of these characteristics. As a generalisation, learning characteristics can vary even further in high-potential students with disability, Aboriginal students, students from diverse cultural backgrounds, rural and remote areas and students at risk.

The challenge for educators is to develop a deep understanding that high-potential and gifted students, in all domains, learn in ways characterised by their diverse profiles. Many characteristics cross the domains but others are more relevant to one domain than to the others.

High-potential and gifted students can also exhibit characteristics and behaviours that challenge teachers and mystify their classmates. Some may demonstrate anxiety and unhealthy perfectionistic traits. This is caused partly by the asynchronous development of high-potential and gifted students. These learning characteristics require educators, coaches and instructors to implement evidence-based talent development programs, procedures and practices that meet the learning and wellbeing needs of high-potential and gifted students.

Adapted from Vialle, W. and Rogers, K.B. (2009) *Educating the gifted learner*. Macksville, David Barlow Publishing.
NSW Department of Education. (2023). *High Potential and Gifted Education*.
https://education.nsw.gov.au/teaching-and-learning/high-potential-and-gifted-education

High Potential and Gifted Education at Sydney Technical High School 2022-2026			
	Strategic Direction 1	*Strategic Direction 2*	*Strategic Direction 3*	
High potential (Domains)	Student growth and attainment	Leadership	Innovation	High performance (Systematically developed abilities)
Intellectual	Opportunities for sustained deliberate practice Quality teaching, curriculum and provisions including access to flexible curriculum options	Programs that develop resilience, motivation, effort, and perseverance	Advanced learning pathways and acceleration Quality teaching, curriculum and provisions including access to flexible curriculum options	**High achievement in fields of:** ● Academia ● Arts/humanities ● Business and entrepreneurship ● Citizen and leadership ● Games ● Science and Technology ● Sport **Reduced reports of:** ● Unhealthy or maladaptive perfectionism ● Disengagement ● Underachievement ● Poor subject selection ● Mental health issues ● Problematic group participation ● Challenging authority
Creative	Advanced learning pathways and acceleration	Enrichment and extra-curricular programs Opportunities for sustained deliberate practice	Differentiation Provision of a range of opportunities to engage students and identify their learning interests	
Socio-emotional	Differentiation A supportive learning environment. Supportive and connected learning environment ACARA's Personal and Social Capability Continuum Flexible Social and emotional learning opportunities Teach Perspective/s through curriculum eg. English, History	Differentiation Programs that develop resilience, motivation, effort, and perseverance Student leadership opportunities e.g.,Junior AECG, NSW Parliament Secondary Schools Student Leadership Program, Minister's Student Council Student volunteering, community, sustainability and social justice programs Career pathway support Peer mentoring Peer Support and Peer Leader Training programs	Programs that develop resilience, motivation, effort, and perseverance	
Physical	Advanced learning pathways and acceleration	Enrichment and extra-curricular programs	Deliberate talent development programs systematically cultivate the skills and knowledge	

HPG student development strategy:

<u>For HPG students:</u>

Talent development is the process by which a student's potential is developed into higher achievement in a specific domain or field of endeavour. Students move through various stages of competency along a continuum from novice to competency to mastery. Mastery refers to expertise, exceptional performance, accomplishment or outstanding achievement in a given field, including the accomplished achievement of curriculum outcomes in a subject area or domain. A student demonstrating mastery exhibits a deep understanding that enables them to transfer that understanding across domains. High-potential and gifted students may develop talent and move through the stages of competence more quickly than same-age peers. To develop talent towards mastery, students need opportunities and encouragement. Every STHS intervention or program should take into account the talent development stage and potential trajectory of the student. This should be extended to recognised HPG underachievers in recognition of their own individual needs and support networks.

> **STHS recommendations:** *improved consistency in delivering a* ***whole school culture of high challenge, high support*** *that targets the intellectual domain through expert evidence-based teaching in all classrooms surrounded by access to high calibre opportunities for parallel growth and achievement in the physical, creative and socio-emotional domains. The creation of our newest SIP Team - Leading diversity - is an acknowledgement of our efforts to make improved progress for our students.*

<u>For teachers of HPG students:</u>

Building teacher and leadership capacity through engagement with quality research and ongoing professional learning on effective practices underpins improved growth and achievement for all high-potential and gifted students. Leaders and teachers with appropriate training and skills to meet the needs of high-potential and gifted students may not be limited to those with formal qualifications in the domain. The HPGE Strategy acknowledges the role and value that classroom experience plays in teacher development and effectiveness. It also recognises the value add that quality professional development and the currency in exposure to recent developments in this field plays.

> **STHS recommendations:**
> - *professional coaching and/or credentials in creative, physical, social-emotional and intellectual domains*
> - *extensive professional learning in high potential and gifted education, student sports coaching, or teaching in creative and performing arts programs as appropriate*
> - *advanced study and/or experience in a relevant field or discipline that benefits explicit talent development strategies in teaching and learning programs (for example, high-level mathematics study for teaching extension mathematics courses)*
> - *successful experience teaching high potential and gifted students*
> - *significant experience working with representative talent development, student leadership development, social justice or entrepreneurial programs.*

STHS's vision is to be recognised as a leader in selective school excellence that consistently delivers best-practice HPG education opportunities for every student. Over the cycle of the current SIP, our school's targets for implementing the HPGE Policy into practice includes:

- 100% of all teaching staff with at least 20 hours of registered professional learning in HPG education during 2022-2026
- 100% of all teaching staff reporting confidence in the knowledge of the needs of our HPG students
- 100% of all teaching staff reporting confidence in their classrooms in meeting the needs of our HPG students
- 100% of all staff experienced in recognising potential and demonstrated capacity to implement evidence-based program/s for individual or groups of HPG students.
- Advanced learning pathways are explored and timetabled - specifically, formalised and expanded program of acceleration of Stage 6 courses for students in Stage 5.
- Differentiated models of student leadership opportunities across the school - especially within and across the existing SRC/House system.

Appendix - *Collated results from the 2023 HPGE ATPS.*

Demographics:

- 40 participant responders (11 in non-teaching roles).
- 50-50 split between staff with more or less than ten years of teaching experience.
- Similar split for those with more or less than ten years of teaching HPG students.
- While 40% report additional and specialised HPG qualifications with 26% at the postgraduate level, the survey's limitation around these qualifications' currency and spread across faculties.

Attitudes:

- More than 90% of all responders reported strong opinions about the importance of every school offering learning opportunities for HPG students as they are in every community.
- 93% of responders acknowledged the need for ongoing assessment of HPG students to effectively identify their needs. Similarly, high numbers reported that the development of HPG students is largely dependent on support from schools in resources, professional development and evidence-based practices. Somewhat contrastingly though, about half of the responders recognise specialised teacher professional learning as a determining factor in success for HPG students.
- All school personnel - teachers, leaders and non-teaching members of the school community require ongoing professional learning to improve the growth and achievement of our HPG students.

Teaching practices:

- Over 80% incorporate higher-order thinking and problem-solving tasks into their daily suite of teaching and learning strategies.
- A proportionally inverse percentage report the use of creative and/or critical thinking skills.
- Questions 23 - 29 explored 'challenge and choice' in HPG teaching practices. It was a section of the survey where the most disparate responses occurred around the frequency of their delivery. Q25 is about acceleration. With 10% of respondents reporting their daily use of this, it certainly reflects the acceleration that exists in our current timetable.
- Q26 yielded a similar score at 13% in relation to the opportunities available to our HPG students in the form of advanced learning pathways. Q30 extends this with almost 60% of responders
- STHS staff are aware of the practice of pre-testing but are looking for guidance around how the data obtained in pre but also post testing can make meaningful change for HPG students at an individual, class or cohort level.
- Formative assessment is a highly popular (53% report daily use) HPG teaching strategy.

Opportunities for further research and/or professional learning:

- Who are those teachers with significant HPG qualifications? What aspects of their higher learning are practised in their teaching? How can their expertise be shared with others?
- Specifically for STHS teachers, the sort of professional learning is the preference around making more of an impact on the achievement of HPG students.
- Exploring what STHS staff feel are the most impactful determining factors for HPG success could be helpful here too.
- What are the advantages of providing HPG students with creative/critical thinking skills? What sort of links do they have to the KLAs? Are they across domains? Is there a demand for professional learning in this area?
- Diverse learners - updated PL for staff around how adjustments can be meaningfully made for neurodiverse HPG students ('twice exceptional')
- Acceleration and/or advanced learning pathways. Through what means can these be expanded at STHS? In-class extension? Recognition of prior learning as an alternative to summative assessment task method/product?
- What are the formative assessment practices that work best in different KLAs across different stages of learning at STHS? Are these accessible for all students irrespective of the timetabled teacher? What feedback methods are incorporated into the formative assessment procedures that lift student achievement?
- High potential and gifted students require opportunities to engage in creative production. The cultivation of attitudes and mindsets, such as openness and risk-taking with learning, needs to be a deliberate part of programming and quality teaching. Creativity is the ability to come up with novel and useful ways of doing things. Critical thinking involves learning to

develop an argument, use evidence, draw reasoned conclusions and use information to solve problems.

- Critical and creative thinking involves students engaging broadly and deeply in their learning using skills, behaviours and dispositions such as reason, logic, resourcefulness, imagination and innovation across all domains of potential.
    - https://thedecisionlab.com/reference-guide/philosophy/scamper
    - https://www.designorate.com/a-guide-to-the-scamper-technique-for-creative-thinking/