Implementing an extension and enrichment program

Speaker's notes

These speaker notes are provided to assist the school staff member who will be presenting the PowerPoint presentation to their staff. They are intended as a guide only. Links are provided to relevant articles and resources throughout the document.

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SLIDE 1: Implementing an extension and enrichment program

Extension and enrichment is about adjusting school curriculum and planning to better meet the needs of all students, particularly those who are gifted and talented. These students are the more able thinkers with advanced cognitive abilities, and in most schools this represents about 10% of the student population.

This two-hour presentation is about assisting schools to:

• Identify more able students

• Address issues that work against formalising school programming for these students

• Consider additional strategies and activities to strengthen extension and enrichment programs for gifted and talented students.

Why do something?

'The Review of Funding for Schooling', Final Report, December 2011 chaired by David Gonski AC reported that achievement of top performing students in Australia in mathematics and literacy has significantly declined over the past 10 years. This is disconcerting data for all involved in education. See http://www.schoolfunding.gov.au/node/7

This however is not the case for the students in the lower 10% of cognitive ability, including students with borderline IQs and those diagnosed with an intellectual disability, as well as those with certain learning disabilities. Gonski's review found that the learning outcomes of these students have actually increased over the past decade due no doubt to funding and extra programming and support these students receive. Thus it could be concluded that specific targeted programs are needed for gifted and talented children to improve student outcomes.

Implementing an extension and enrichment program also helps to:

• Meet individual needs and welfare of all students

• Improve student behaviour, motivation, engagement and attendance

• Meet parent expectations of more being done to meet the individual needs of their children

• Differentiate your school from other schools.

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Implementing an extension and enrichment program

SLIDE 2: Who are gifted and talented?

Today we are focusing on the top 10% of students, those with an IQ of around 120 and above, with Superior and Very Superior intelligence.

Characteristics of students in the top 10%

These students are very able thinkers, who are different from other learners. They learn at a faster rate, identify, solve and follow up on issues and problems quickly, can process and manipulate abstract ideas and concepts with relative ease, and often have exceptional memories.

Learning needs

Familiarise yourself with the Psych4Schools ebooklet *'Working with children who are gifted and talented'* and visit education department gifted and talented websites such as the NSW Department of Education and Training at
http://www.curriculumsupport.education.nsw.gov.au/policies/gats/programs/differentiate/index.htm

These two sources highlight the characteristics and learning needs of very able thinkers. These children don't need repetition, but they do need extension or they will often 'mask' their abilities or 'dumb' themselves down. These students can experience high levels of anxiety (e.g. worry about world issues), can have gaps in their learning and may have learning difficulties and disorders just like other children. They often experience problems working cooperatively in groups. Thus these 'smart' children may have additional needs.

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SLIDE 3: 12 reasons most schools don't implement formal extension and enrichment programs

A recent article on gifted and talented students in *The Age* newspaper in Victoria reported some of the difficulties schools experience in identifying these students. See
http://www.theage.com.au/victoria/state-fails-gifted-pupils-20110828-1jgpn.html

A summary of the article is on the Psych4Schools website. See
http://www.psych4schools.com.au/announcements/victorian-schools-failing-gifted-students

Our experience in assisting a number of schools to implement extension and enrichment programs further highlighted these twelve issues.

1. **Identifying and assessing students through costly IQ testing can be a problem.** Formal IQ testing has its place, but other assessments can lead to identification. There are a number of school-based teacher assessments, teacher and parent observations and school administered assessments from ACER that enable identification and assessment of these students without the need for an initial formal assessment by a psychologist. (See slides 12 and 13).

2. **It is important not to label these students 'gifted and talented'.** Doing so can create excessive expectations and unnecessary pressure for these students. It can also lead to isolation from peers. The program is better described as an, *'Extension and Enrichment program'* (with the tag line, *'for gifted and talented students'*, if you wish).

3. **Acceptance of very able thinkers can be an issue.** These children are more able thinkers than many of their peers, and in some case their teachers (when they were the same age). These students do however have their own needs. They are not an elite or

privileged group or the next group of 'tall poppies'. We must not misunderstand or prevent these students from achieving their personal best. Promoting a genuine 'love of learning' as a school value can help facilitate this goal. There is clear evidence that without a school ethos focused on personal achievement from the point of school entry, these students can 'dumb down,' 'tune out', misbehave or just slip under the radar. It is essential that they and others fully realise their true potential.

4. **Classroom and subject teachers need to take responsibility for extension and enrichment.** Programming students to work in the same workspace and on common topics allows all students to better share their learning under the leadership of their classroom teacher. Less bright students benefit from gifted students sharing the learning and thinking that has led them to their findings or understandings. Working in the same workspace also means that students don't miss out on the usual program or 'what is going on' in the room. There are great benefits for all students when a deputy or assistant principal takes overall responsibility at the school level to ensure effective operation of the program.

5. **Providing a differentiated curriculum can be challenging.** However thoughtful and planned questioning is often an effective approach. For example, for students who are slow learners, teacher questions might focus more on knowledge and remembering whereas for gifted and talented students, allowing them to formulate questions can help to create deeper and richer understandings. Allowing gifted students to work with older or like ability children regularly can also help to differentiate the curriculum. Refer to the Psych4Schools ebooklet, '*Working with children who are gifted and talented'* for further suggestions about how to adjust curriculum and planning to cater for higher ability students.

6. **Recognition that extension and enrichment program can go beyond thinking skills and the classroom academic program to encompass specialist programs.** For example student talents could be developed through music and art projects, learning a specific skill in sport and physical education, or even assisting children to play chess at an advanced level. The Federal Government's BER program has seen the building of more learning space in schools that allows for 'differentiated' teaching in quieter spaces to facilitate group work and hence new understandings.

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SLIDE 4: 12 reasons most schools don't implement formal extension and enrichment programs

7. **Timetabling issues.** Groups of students and others such as mentors, buddies and learning coaches can mean greater pressure on timetabling and the movement of students. In primary schools where there is less use of bells to prompt the movement of teachers and students, there is a greater need to manage time. For example, students and teachers might 'forget' regular enrichment sessions with the assistant principal unless someone takes responsibility for remembering, or clear visual timetables are displayed. The more the program complements the existing program and is classroom based, the less need for students and teachers moving from one place to another.

8. **Senior staff, particularly those at the principal class level can find it difficult to balance teaching commitments with non-teaching administrative obligations.** However, extension and enrichment programming benefits from the involvement of the most experienced staff, such as principals and deputy or assistant principals and other senior or specialist staff. These staff members for example, might commit to two short weekly sessions with a group of extension and enrichment students.

9. **Uncertainty about whether the programming of extension and enrichment should complement the existing classroom program or be another program.** When there are more teachers involved beyond the classroom teacher, programming that compliments the class program seems to work best. An example, an additional staff member complimenting the extension program might be through exploring different thinking tools or different problem solving strategies for one or two sessions with a group of students before returning to the main topic of study or enquiry. Teaching staff are often best placed to decide this programming issue.

10. **The curriculum is already 'crowded' and 'busy'.** Making the program part of the usual school curriculum helps manage time pressures. However, teachers may need to carefully plan when there are other additional demands on time. For example, in the final year of primary school it might be better to have a greater focus on longer term-based enquiry units during the middle terms, with shorter units in term 1 and term 4 when there are competing demands such as school camp, swimming sports, team building activities, the school play and graduation.

11. **Communication can be tricky.** The use of email, Edmodo, see http://www.edmodo.com/ or similar intranet communication tools can help solve some of the difficulties when additional teaching staff might only have weekly or bi-weekly face-to-face contact with students. All teachers also need time to meet or chat on a regular basis.

12. **Finding time for planning and resourcing in the preceding year of implementation.** Where schools operate on a four-term year, decisions regarding program implementation and resourcing need to be made during terms 3 and 4, with students identified and assessed during term 4, in readiness for the next teaching year. The assessment of students for extension and enrichment needs to be linked with other assessment and transition programs so they are part of the overall testing practices of the school.

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SLIDE 5: Early indicators of gifted and talented children

There are a number of key indicators of giftedness. For example, many gifted and talented students teach themselves how to read and count before starting school, hence the importance of implementing extension and enrichment from the very beginning of primary school.

It can be helpful to use these early indicators as the basis of questions to ask children's parents during transition and screening programs at school entry. The Psych4Schools Parent and Teacher form for Entry to Year 2 and a Parent form for Years 3 to Year 8 (as well as other teacher forms) are also available on the website.

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SLIDE 6: Characteristics and issues

As mentioned before, the top 10% of students do have additional learning needs. Be careful not to assume that each child is equally gifted in all areas. For example, 'giftedness' creates asynchronous development and uneven development leads to vulnerabilities such as perfectionism, and heightened sensitivity. The very able student's rapid cognitive and intellectual development can sometimes leave other areas of growth behind, such as their social and emotional development. The Psych4Schools website carries ebooklets that provide teaching strategies for '*Working with children who worry excessively*' and '*Working with children who display perfectionistic behaviour*'.

Gifted and talented children can find cooperative learning groups frustrating and anxiety provoking. These students often prefer to work on their own or with like-minded students, so group work needs to be carefully managed. See the Psych4Schools ebooklet for '*Working with children who are gifted and talented*' for additional strategies. This ebooklet also describes strategies to help very able students to stay on track, rather than going off on a tangent and not completing a set project or task.

As previously mentioned, without early identification and appropriate support highly able thinkers can 'tune out' or 'dumb down'. While some will cruise along at school doing what's expected, others through frustration and disenchantment can 'act up' causing behavioural issues and concerns.

Without their individual learning needs being meet these students may never reach their full potential.

Students, who are gifted or very able, like any other students, can have a specific learning disability or other disorder. See the Psych4Schools ebooklet for '*Working with children who are gifted and talented*' for additional strategies.

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SLIDE 7: Differentiating the curriculum – matching student needs

This slide is fairly self-explanatory. In any classroom, the spread of abilities can easily span four, five or even more years of academic ability, from students who are 2 years ahead in core subjects such as mathematics and English to students who are 2 or more years below. This spread requires a differentiated curriculum. See Bloom's taxonomy of learning to assist in classifying learning outcomes http://www.learningandteaching.info/learning/bloomtax.htm When planning to cater for very able students, invert the taxonomy to concentrate on the higher order thinking and learning skills.

Perhaps discuss with a colleague or privately reflect on your current attempts to meet individual or group needs. What would it take to implement one small change to better meet student needs? Drawing on other sources of support and assistance might be one approach. Review one of the learning taxonomies (e.g. Bloom's) and implement strategies to assist those students who enjoy higher order thinking to effectively access the curriculum.

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SLIDE 8: What does the differentiated program look and sound like?

Consider the first column on the left. You may wish to think of an activity where students could profile them selves on the multiple intelligences, see http://www.infed.org/thinkers/gardner.htm Do your students favour particular domains? For instance, many of us frequently draw upon linguistic, logical-mathematical and spatial intelligence, but often draw less on the other intelligences. Identify students' strengths and preferences, and consider those intelligences that might be used to draw students out of their 'comfort zones'. This process can help students to explore, understand and represent thoughts and understandings from newer perspectives and in different ways.

The middle column is at the heart of differentiation. All learning should start where the student is at, the pace of instruction should vary, with self paced learning and subject difficulty and complexity all being aspects of differentiation. Learn to use inclusive practices such as the Jigsaw method, see http://www.jigsaw.org/overview.htm and have a number of groups research one aspect of the jigsaw, which might include peer teaching processes and feedback before reporting back to the whole class.

The third column on the right, involves the teaching strategy of thoughtful questioning by teachers and by students. For example, allow very able students to set their own questions for enquiry. Teachers can use a diversity of questioning techniques to draw out thinking. For example, open (versus closed) questions, probing questions to draw out depth in understandings, and supportive questions to help develop a sense of cooperation and fun. This does not however, preclude the teacher using explicit teaching to assist and advance student learning.

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SLIDE 9: Examples of enrichment and extension education projects

Here are just a few ideas or activities that can be implemented. For example, in one primary school, a larger group of very bright students across Year 3 and 4 supported their smaller team of speakers by researching, discussing and listing the arguments for and against the debating topic, 'Is there freedom of speech?' This work took place over an eight-week period and led to a final presentation of the debate to a large audience of students, teachers and parents. This oral presentation is based on the persuasive genre and helped students better understand the written requirements of this genre currently used in national testing in the writing component of NAPLAN.

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SLIDE 10: Examples of enrichment and extension education programs

Take some time as a team or staff to list and share your knowledge of enrichment and extension programs. This collaboration can highlight the rich and diverse knowledge base of the teaching staff. For example, one group of teachers talked about science projects with one in particular called, 'Murder under the microscope', see http://www.microscope.edu.au that they had seen in use with Year 5 to Year 10 students on a 5- week learning cycle. Others mentioned problem solving activities used in Tournament of Minds see http://www.tom.edu.au/, which is a national problem-solving program for teams of students at primary and secondary level. Others, included programs that require parents to pay for, such as, the UNSW Global ICAS testing programs, see http://www.eaa.unsw.edu.au/icas/subjects/ and others such as the G.A.T.E.WAYS programs which provide challenges and workshops on a regular basis throughout the year see http://www.gateways.edu.au/

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SLIDE 11: What programs do we already have in place?

By taking an audit, school staff can better understand the current range of programming that is already in place that can easily be incorporated into a formal program. For example, in one school, there was a twice weekly literature group operating in the senior school, a two day a week lunch time cross-stich program, a masters' chess club, an interest based library reading program, a maths problem solving program and a game making program across the school for highly able students once a week.

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SLIDES 12 and 13: How to identify these students

Refer to the various identification forms and website addresses for each of the suggested assessment and observation tools. Many of these are available from Australian Centre for Educational Research (ACER) such as the ACER HAST-P see www.acer.edu.au/hastprimary and the ACER HAST see www.acer.edu.au/tests/hast-secondary/the-tests.

In Australia, the Raven's Coloured Progressive Matrices (CPM) and the Raven's Standard Progressive Matrices (SPM) assessments booklets and forms are available from Pearson PsychCorp, http://www.pearsonclinical.com.au

Schools may also wish to consider the use of ACER General Ability Test – Years 2 to Years 10 (AGAT) that removes the need for trained teachers to use of the CPM and the SPM and the need for the use of the ACER HAST-P and ACER HAST. The AGAT test of general intellectual ability is designed to assist teachers in their assessment of students' learning potential and overall aptitude. It can be used by appropriately trained educational professionals or can be administered online, see https://shop.acer.edu.au/acer-shop/group/AGAT

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SLIDE 14: Decision-making requires lead-time

Around mid semester two is a good time to make a decision to commit to implementation for the following year. This commitment must be sustainable and across the whole school or at least across whole departments or sub-schools, with a plan to implement progressively, say over a three-year period. We recommend a whole school implementation that quietly but surely implements an extension and enrichment plan. Not everything can be covered in the first year. Semester and yearly reviews are useful to readjust the focus and clarify thinking.

A timetable needs to be established to train senior teaching staff in the administration and scoring of tests and assessment tools, if required. The nomination and screening of students needs to be implemented. The school needs to carefully consider that some students will be high achieving and talented students who stand out from other students, but there are also likely to be some gifted students who are underachieving. They need to be identified and nurtured.

Teachers throughout the school or sub-school need to commit to the program, and begin to seek out resources and units of work related to student interests and core subjects that will be enriched.

 The school might consider establishing teacher reference materials or a shared internal data network of teaching resources.

Teachers need to continue to develop clear understandings of what 'giftedness' and what being 'talented' means. There are a number of gifted and talented seminars and resources that teachers can access over time. The Psych4Schools website lists some additional resources for teachers.

Obviously parents need to be involved and communicated with during the implementation of this program. We recommend a quiet but sure approach that includes parents as partners in their child's education. All extension and enrichment programs should be reported in students written semester reports.

Good luck with implementing an extension and enrichment program in your school.