

Briefings

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From the Executive Director

The Prep Half Cohort – Getting Closer to Graduating

Many people have asked me why the Queensland independent schooling sector is projected to grow by 3.3 percent in 2020 compared to the independent sector growth across Australia of 2.3 percent. This projected 3.3 percent increase in 2020 comes after annual projected growth for the Queensland independent sector of around 1.5 percent for the period 2017 to 2019 (see *Graph 1*).

The spurt in growth in 2020 is not because of a baby boom (as we experienced in 2007 with an increase in enrolments from around 2012) but results from 2020 being the first year in 13 that total schooling numbers will not be impacted by the Prep half cohort.

The half cohort of Prep students enrolled in 2007 to align with the shift in the compulsory school starting age from 2008. The first full Prep cohort commenced in 2008.

The Prep half cohort who commenced in 2007 are in Year 9 at the current time and will graduate from Year 12 in 2019.

Graph 1: Independent Sector Enrolment Projections – Percentage Increase

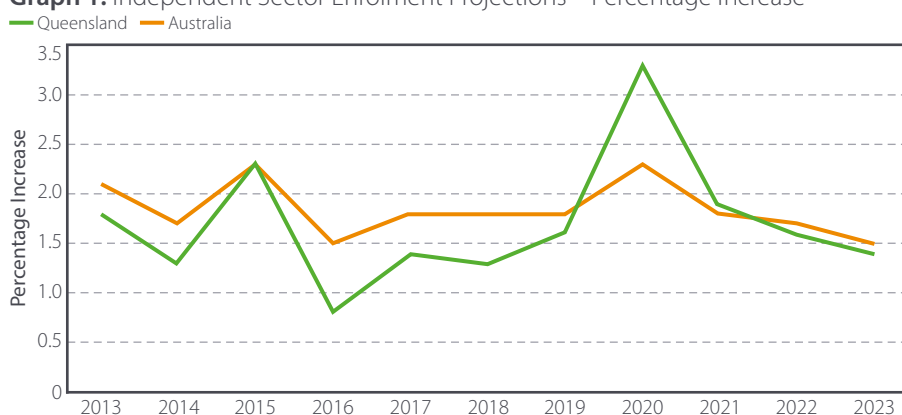


Table 1: The Prep Half Cohort – Queensland Schools

Year	Year Level	State	Catholic	Independent	Total Students
2007	Prep	23,026	6,389	4,338	33,753
2008	Year 1	24,335	6,862	4,978	36,175
2009	Year 2	25,251	7,046	5,018	37,315
2010	Year 3	25,703	7,180	5,227	38,110
2011	Year 4	26,069	7,248	5,522	38,839
2012	Year 5	26,223	7,493	5,896	39,612
2013	Year 6	26,315	7,467	6,492	40,274
2014	Year 7	26,228	7,288	7,323	40,839
2015	Year 8	24,634	8,666	8,540	41,840
2016	Year 9	25,076	8,638	8,566	42,280

Data source: 2016 Non-State School Census (State) February Collection

From 2020, every year level – from Prep to Year 12 – will be a full cohort of students with current estimates suggesting an additional 1,500 students in the independent sector as a result, accounting for the higher than expected enrolment growth.

Table 1 follows the progress of the Prep half cohort in Queensland across the three schooling sectors from 2007 to 2016.

The Prep Half Cohort – Getting Closer to Graduating

The 42,280 Prep half cohort students in Year 9 in 2016 compares to 60,483 students in Year 10 in 2016 and 58,733 students in Year 8. In other words, the 2016 Year 9 group is about 18,000 students smaller than the Year 10 group, and 17,000 students smaller than the Year 8 group. This means the “half cohort” is more like 70 percent of what would have been expected in this year level.

The impact of this group of students on the independent sector is illustrated in *Graph 2* which outlines Year level enrolments for Prep to Year 12 in 2016.

The number of students in this Prep half cohort has increased by 8,527 since 2007 (or 25 percent) reflecting the demographic growth experienced by Queensland. For the independent sector, the number of students in the Prep half cohort has almost doubled in 10 years reflecting steady intakes at each primary year level and the larger intake into the first year of secondary (this being 2015 and Year 8 for this group of students).

The term Prep half cohort is definitely not correct for the independent sector, given that this group of students, right from 2007, has been significantly higher than 50 percent of the “normal” age cohort for independent schools. For the independent sector, it might more appropriately be called the 80 percent cohort.

Graph 2: Year Level Enrolments – Queensland Independent Schools 2016

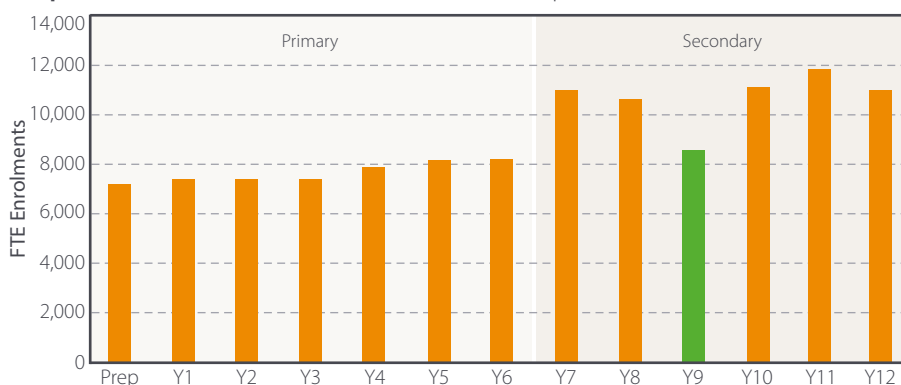


Table 2: The Prep Half Cohort as a Percentage of Enrolments in the Year Level Below and Above

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Year Level Below		84%	83%	86%	88%	87%	89%	94%	81%	78%
Year Level Above	69%	81%	80%	79%	79%	77%	73%	66%	78%	77%

Graph 2 and Table 2 data source: 2016 Non-State School Census (State) February Collection

Table 2, which outlines the Prep half cohort compared to enrolments in the year level before and after, indicates that the figures for the independent sector have been around 80 percent.

This results from a significant number of exemptions from the entry age provisions granted by the Queensland Government in 2007 (following pressure from parents) and the sensible decision of the Government at the time to allow independent schools to enrol outside of the new age requirements children who had been on waiting lists for enrolment in 2007.

Whilst the Prep year is universally offered, it is currently not compulsory. This will change in 2017, with a Bill currently before the Queensland Parliament to make the Prep year compulsory.

The Prep half cohort has impacted on individual schools differently in the independent sector. Some schools have been able to maintain their enrolments for this group of students at normal levels; for others the impact has genuinely been around half of the students who would have normally been in the year level.

The Prep half cohort has been a challenge for all schools in terms of facilities and enrolment planning, added to in recent years by the transfer of Year 7 to secondary in 2015.

For schools that have been impacted by the Prep half cohort, there have been significant financial challenges. Smaller class sizes for this cohort means less income (in both fees and government grants), yet more than often the costs of providing schooling

for this group have not reduced in line with the reduction in income.

Schools have particularly felt the financial impact as the group moves through secondary schooling, and for many schools this will become more acute when the cohort reaches Years 11 and 12 in 2018 and 2019 respectively.

This unique group of students will also be the first to graduate Year 12 under the new senior assessment and tertiary entrance procedures in 2019. This raises the interesting question as to how the universities will be impacted by the Prep half cohort. Will they accept a lower number of students in 2020, or will they fill all available places (which might suggest lower entry scores for some courses)?

Similarly, the Prep half cohort could be expected to impact on all post-school destinations in 2020, including the employment market, with approximately 20,000 less school leavers in 2019.

For independent schools, now is a good time to consider the implications for facilities and the workforce of 13 “full” year levels in 2020.

Based on 2016 enrolments, 43 Queensland independent schools are identified as having at least 15 fewer students in Year 9 than were in Year 10 as well as at least 15 fewer students in Year 8.

A further 16 independent schools were identified as having at least 10 fewer students in Year 9 than were in Year 10 as well as at least 10 fewer Year 9 students than were in Year 8.

For these schools, there are potential implications for facilities from 2020. Schools which are in growth phases could also be impacted in terms of facilities, as will new schools.

The introduction of the Prep year in 2007 and the change in school starting age from 2008 were significant changes in the structure of Queensland education. The Prep year is widely acknowledged as a significant contributor to the improved educational outcomes being achieved in Queensland.

The Prep half cohort associated with these changes has presented significant financial and facilities challenges for schools since 2007 and these will continue through to 2019 when this unique group of students graduates.



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Teachers Leading Research in Best Practice Pedagogy

Education has a long and rich history of research into what constitutes best practice pedagogy in schools. We saw the waves of Piaget and Vygotsky's work on proximal development to constructivist teaching methods to personalised programs and visible learning (Hattie, 2013). Each research piece contains multi-structured and multi-layered research practices conducted by high profile theorists observing and manipulating pedagogy of practising teachers to determine "what works" and what aspects could be transferred and scaled to any classroom. Most recently, highly popular researchers including Hattie (2013) and Marzano (2004) have published high-yield strategies through meta-analysis that guide teachers as to what is proven best practice for students. The common results and recommendations from their research include strategies for teachers such as:

- a clear focus for the lesson
- offering overt instruction
- engaging students in the content
- giving feedback
- giving multiple opportunities/exposure to content and skills
- have students apply their knowledge
- get students working together
- building students self-efficacy (Killian, 2016).

While many educators would agree with these strategies, in recent years there is a trend that is becoming more widely recognised and accepted amongst scholars and educators whereby the practising teacher doesn't wait for the researcher to observe and consider their great practice or for newly published research to be released telling them how they should teach students. Instead, now more than ever, teachers are being empowered to lead their own research. When a teacher observes a noticeable change in student learning, motivation or wellbeing, they will closely monitor what aspects of that change was a result of a teaching practice, a piece of content, or the conditions for learning that were put in place for students to succeed. They may also see the strategies of highly popular researchers such as those mentioned above, and see benefit from testing the strategies under specific or unique conditions pertinent to their own student cohort. These teacher researchers are now leading the investigation behind their own practice to determine "what works" and, where applicable, they can replicate it for their whole school to benefit. Further to this, teachers are actively and collaboratively engaging in reflective practice enhancing their professional growth both as a teacher and research professional.

This surge of teacher-led research is certainly not at the discredit of fully integrated and structured investigation by qualified researchers, but rather adds value to this research by analysing how everyday teachers are doing extraordinary things to shape the growth of students. It also allows for a process of sustained and continuous improvement within a school and can showcase the results of the research in education and community forums.

Using action research in classrooms

By linking action with research, teachers can create a practical, deliberate and systematic approach to acquiring knowledge (Baskerville & Wood-Harper, 1996). Such an approach is designed for people to research their own work practices and environment to create positive change in their practices and interactions as well as giving potential to influence those around them with those changes (Nugent, Malik, & Hollingsworth, 2012). In education, action research can be a dynamic, meaningful process of teaching, learning and decision-making to examine and facilitate change in pedagogy, student learning and school processes (Kleine, 2012) (Samios, 2015).

Typically, action research is characterised by the identification of a problem and the application of systemic

spiralling cycles that examine and respond to the problem. This process, outlined in *Figure 1*, demonstrates how each spiral is a process of: planning strategies to address the problem; actioning the plan; systemically collecting data to observe the effect of the plan; reflecting on the data to understand the effect of action on the problem and to redefine the problem (Zuber-Skerritt, 2001). This cyclic nature enables continuity in research and empowers teachers and school leaders to craft the most appropriate strategies and approaches in their school environment (Samios, 2015).

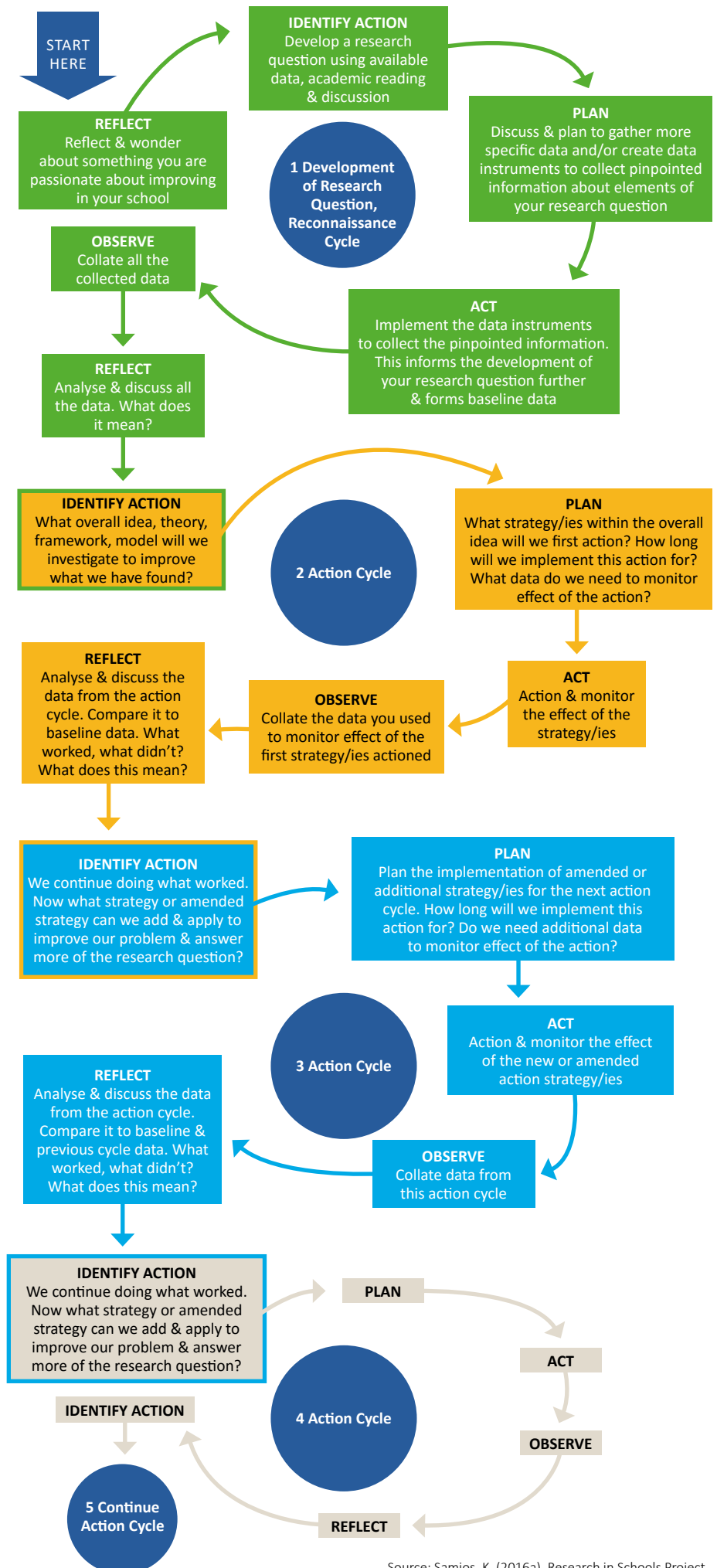
Engaging in action research positively influences teachers' thinking flexibility, their professional self-efficacy (decision-making, curriculum and instruction), collaboration levels and sense of self as lifelong learners (Pine, 1981). The effect of this on students is success in learning and improved student achievement through more effective teaching and administration of schools (Cohen & Manion, 1980).

When action research works best in schools

Teachers or schools wishing to use action research to identify potential improvements and monitor growth as well as drive a thorough professional development program will most likely have success with at least one of the following conditions:

- A school wishes to develop a process for professional learning that puts the teacher at the centre of knowledge building, active problem-solving and collaboration.

Figure 1: The Action Research Cycle for Schools



Source: Samios, K. (2016a). Research in Schools Project

Teachers Leading Research in Best Practice Pedagogy

- Teachers have identified an area of need or interest, or an idea, that requires investigation at the teacher level.
- Teachers have identified an area or areas of need or interest through strategic planning processes that requires investigation at the teacher level.
- Schools wish to provide teachers with opportunities to engage as pedagogical leaders at the Highly Accomplished and Lead stages of the Australian Professional Standards for Teachers (APSTs).

Alongside these condition(s), teachers or schools need to consider the desired outcomes of the research to be undertaken. This should include both the desired student outcomes and the desired outcomes for the teacher or school.

Within the process of the action research cycles, teachers will need effective support and guidance to support their professional development and to monitor the progress of the research (Kleine, 2012).

Leadership support and sponsorship is critical to the success of teacher-led research as it is an inherently reflective process, examining each action within the cycle and its impact on the desired change. Time and support to engage in this deep, contextually rich interpretation of the chosen issue, and to engage as collaborative investigators and reflectors for change is essential for success and impact. By pairing action research with an effective mentoring program, schools will have created optimal conditions for the greatest impact on student achievement and growth (Kleine, 2012). They will be able to utilise some of the high-yield strategies discussed above with a highly contextualised approach to those strategies that will determine the greatest impact areas unique to their school context.

The importance of the research question

Developing an appropriate action research question is critical in the planning and potential outcomes for completing the research itself (Dana & Yendol-Hoppey, 2014). The complexity and difficulty of creating the question should not be underestimated and teachers should take time exploring the nature of their research in order to determine their question.

As well as examining school priorities to help formulate areas of research, teachers will need to consider both the impact of the student and teacher in the process and how this should be reflected in the question. Action research questions can lead to an ongoing investigation of changing practice, rather than facilitating the “proof” of an existing belief or practice.

With the participants (both students and teachers, plus any others depending on the focus area) and context determined, the focus should then be narrowed to identify the specific impact area being examined and the change sought through the inquiry. This might include impact in areas such as concentration, thinking type, comprehension, mastery, engagement type, attitudes or dispositions.

Finally, teachers should consider the action type that will lead to the potential change; that is “what are you investigating or redesigning?” Within this, teachers might be considering such actions as: e-learning, coaching, behaviour management, reading strategies, motivation strategies, or a model, framework or theory.

Figure 2: Creating an Action Research Question for Schools

Research Elements	IMPACT	ACTION	PARTICIPANT FOCUS	IMPACT AREA	CONTEXT	PARALLEL IMPACT AREA	PARALLEL PARTICIPANT FOCUS
	Open question. You will be looking in the data for the noun you use here	Action is identified but allows investigation, exploration and refinement	Data will mainly be collected from these participants	You will be designing and using existing data to look for changing levels in this identified impact area	This is the context you will be focussing your data collection in	You will be designing and using existing data to look for changing levels in the identified parallel impact area	Additional data will be collected from these participants
<i>Example Question</i>	<i>What effect does</i>	<i>providing student choice of inquiry based projects</i>	<i>have on low achieving middle years student(s)</i>	<i>interest in and attendance</i>	<i>of science lessons</i>	<i>and the professional learning</i>	<i>of their teacher?</i>

Source: Samios, K (2016b): Research in Schools Project

With these steps for developing a research question, example questions could include:

- How does developing a growth mindset in high-achieving students affect their engagement in and the pedagogical approaches of their teachers in Science and English?
- What is the effect of making thinking visible through explicit instruction on pedagogy and high-achieving student outcomes in Year 11 Humanities?

To support teacher-developed action research questions, *Figure 2* gives a summary and structure for focused and intentional research.

With tools and frameworks such as these, teachers should find the planning and implementation of the research to be conducted more focused and deliberate, placing parameters of what is and isn't being investigated. Schools will be able to measure the effect of change, with revision, to help negotiate best practice that meets the needs of their context. This could be through focused inquiry into a new area of work, or better understanding why some practices can improve student learning at a higher rate.

Investigating data

When moving into the data investigation of action research, there are three critical elements to consider:

- What is the data telling me?
- What can I do about it?
- What team will I need to gather to help create change?

The data itself may take many forms, but should include both summative and formative data, as well as both qualitative and quantitative data. By having multiple lenses to investigate change, teachers will be able to form well-considered judgements and actions from their research (Donohoo, 2013). It also supports the development of the rigorous skills of data collection, collation, analysis and interpretation required of teachers. Further, with leadership or mentoring support, the teacher can explore and refine their abilities in critical reflection collaboratively with others to determine the best action cycles for productive and impactful change (Sagor, 2010).

Each of these areas and processes within teacher-led action research supports the wider educational landscape by providing an “on the ground” lens to the educational research space. Each phase can be explored and dissected further, dependent on the focus and need of the school and teachers leading the research, however the above attempts to highlight and give overview of the importance and accepted elements to teacher-led research and its positive effect on teacher growth, school improvement and the wider educational body of research. Valuing this process in each school context can lead to more reflective and focused teachers, as well as targeted action plans for “what works” best within the school that has drawn on highly popular researchers but contextualised for their needs.

Action research through this method allows for a continued acceleration of teaching as a respected profession with highly skilled, practising educators contributing to the latest research for student growth and development (Sagor, 2010).



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More information

Independent Schools Queensland is currently leading the *Research in Schools* program, offering research grants and mentoring support for teachers and school leaders. This program is designed to support the development of practising school staff to be able to undertake rigorous action research that can shape the pedagogy and student outcomes within the school context as well contribute to the larger body of education research for independent schools. For more information on these programs visit www.isq.qld.edu.au/research-in-schools

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