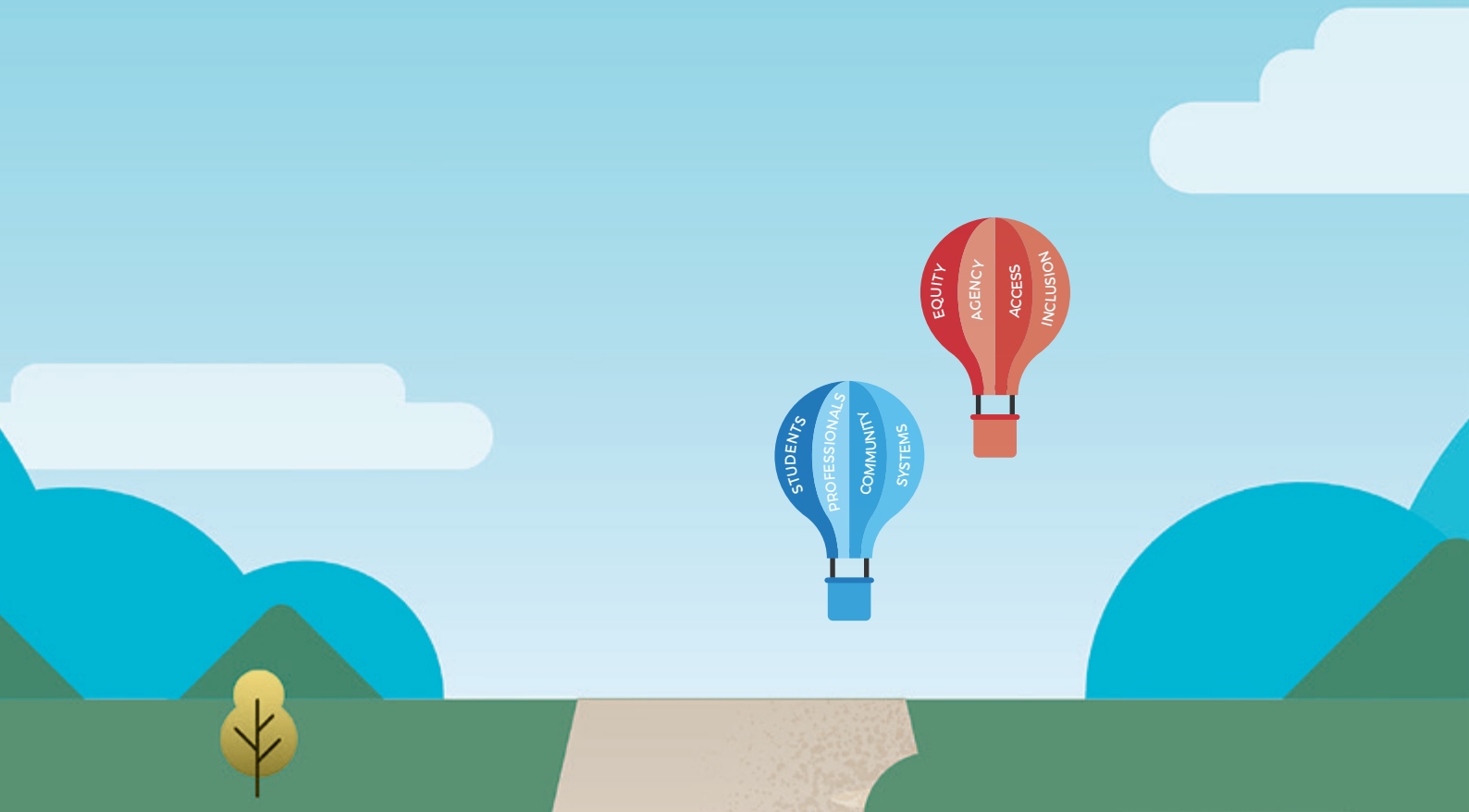
THE FUTURE OF EDUCATION

An ACT education strategy for the next ten years

ACT Government Education

FUTURE OF EDUCATION RESEARCH REPORT



The ACT Government acknowledges the **Ngunnawal Peoples** as the Traditional Custodians of the ACT and region upon which we live and work.

We pay respect to the United Ngunnawal Elders Council and to the Elders both past and present of the Ngunnawal Nation for they hold the hopes and dreams for the future of the ACT and surrounding region. We also acknowledge and pay respect to the Wreck Bay peoples as custodians of the land on which Jervis Bay School is located.

This artwork, *Welcome to Country – Ngunna Yerrabi Byangu*, was commissioned by the Directorate in 2017. The artist Lynnice Church (nee Keen) is a Ngunnawal, Wiradjuri and Kamilaroi woman. Lynnice describes the meaning of the artwork as:

"The painting represents Ngunnawal Country. At the centre of the paining is the symbol of a camp, acknowledging Canberra as a meeting place for many Nations over thousands of generations, for ceremony, marriage and trade. These Nations include the Ngarigo (to the south), Wiradjuri (inland), Gundungurra (to the north) and the Yuin (south coast). The painting shows the mountains surrounding the ACT. Some of the mountains show camps, indicating the neighbouring Nations and pathways connecting these Nations to Ngunnawal Country. The painting colours of blues, purples and greens are those seen in our beautiful Ngunnawal Country.

The painting symbolises the cultural protocol that when entering another Country you must have the permission and blessing of the Traditional Custodians. This is provided by Elders and often involves a smoking ceremony. This ensures cleansing of any spirits coming from another Country and then protection by the Spirits of the Country being entered."

Produced by the ACT Education Directorate.
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THE FUTURE OF EDUCATION COMMUNITY CONVERSATION

In February 2017, the ACT Government embarked on a conversation with the community to inform a long-term strategy for the future of education.

The conversation took place over three phases. The first phase occurred over eight months and secured input from 4,700 people, which led to the identification of ten common themes. The ten themes were consolidated into four foundations which were tested in the second phase with representatives of the community. Representatives also suggested policy direction and actions underneath those foundations.

The ideas that emerged in those conversations have driven and informed the final Future of Education strategy. Whilst community feedback has informed the direction of the next ten years, the strategy also needed to be firmly grounded in research and evidence.

Exploration of existing educational research affirmed many of the ideas raised by the community. Educational research also informed actions within the final strategy.

Research was obtained from a wide variety of published sources, including reputable peer-reviewed journals, books, reports and papers. A synopsis of some of the research that has influenced the Future of Education strategy is enclosed within this report.

STUDENTS AT THE CENTRE

Bullot, A., Cave, L., Fildes, J., Hall, S. and Plummer, J. (2017) *Mission Australia's 2017 Youth Survey Report*, Mission Australia.

About the research:

Mission Australia's 2017 survey was its 16th survey of young people. Conducted on an annual basis, 24,055 young Australians between the ages of 15-19 years took part in the 2017 survey. The survey aimed to gain a better understanding of the values of young people across Australia and understand the issues on their minds.

Key insights:

The report states "four in ten young people indicated high levels of confidence in their ability to achieve their post-school goals, however close to one in five young people were only slightly confident or not at all confident in achieving their goals. The top three barriers cited were academic ability, financial difficulty and mental health."[1]

The report indicates that when it comes to academic and educational outcomes, socioeconomic status is a contributing factor and it suggests that targeted funding is required to respond to disadvantage in order to strengthen educational results. The report emphasises the importance of addressing disadvantage during the early childhood years in order to have a positive impact upon later academic outcomes.

The report acknowledges "the prominence of mental health as a nominated barrier to future goals in the 2017 Youth Survey is of concern in relation to young people seeking employment, as well as those pursuing future study."[2]

According to the report, 2017 was the first year that mental health was identified as the top concern for respondents nationally. This could be as a result of a greater understanding of mental health issues or increased acceptance of mental health issues in society. The report also noted "three of the top four issues of personal concern to young people, also have links to mental health: coping with stress, body image and depression."[3]

The survey found that for all young people, an important part of growing up is feeling like they are part of their families and their communities. For Aboriginal and Torres Strait Islander children and young people, an engaging connection to their culture and community is an important factor in strengthening their resilience. It also identified that it is equally as important that children and young people from culturally and linguistically diverse backgrounds have a sense of inclusion and there is a need to ensure that their services are designed to cater to their needs.

Survey results presented in the report also identified that over a quarter of respondents (27.6%) identified the issue of equity and discrimination as an important issue, with input suggesting much more should be done to deal with these issues across Australia.

1 *Bullot, A., Cave, L., Fildes, J., Hall, S. and Plummer, J. (2017:7) Mission Australia's 2017 Youth Survey Report, Mission Australia*
2 *Bullot et al., (2017:8) Ibid.*
3 *Bullot et al., (2017:9) Ibid.*

Harris, J., Spina, N., Ehrich, L. and Smeed, D. (2013) *Literature review: Student-centred schools make the difference*. Australian Institute for Teaching and School Leadership, Melbourne.

About the research:

"Student-centred schools focus on designing learning experiences that recognise and respond to the individual needs of each of their students."[4] The literature review by Australian Institute for Teaching and School Leadership (AITSL) sought to address and explore the hypothesis that *student-centred schools make the difference*.

Key insights:

Harris *et al*. (2013) identified that there is a strong belief in educational research that student-centred approaches to teaching and learning have a positive effect upon the learning outcomes of all students. They also identified literature that indicated support for the notion that "engaged learning occurs when the lives, knowledge, interests, bodies and energies of young people are at the centre of the classroom and school."[5]

Harris *et al*. (2013) identified that global research and policy literature suggests that particularly for students who are considered in a disadvantaged context, a student-centred approach makes a significant difference. The focus of student-centred education is not only about preparing people for work, but also 'empowering' them to become active democratic participants in society.

Common characteristics of student-centred education include:

- teaching and learning that is personalised to meet individual student needs
- a focus on building meaning and understanding rather than completing tasks
- a challenging curriculum connected to the lives of students
- an environment where cooperation between students is encouraged
- learning being guided by, rather than centred around, the teacher
- learning being connected to the wider community outside the school.

A student-centred school reflects the belief that the experiences, interests and learning styles of the individual student are the primary focus. The learning environment reflects student-centred approaches to pedagogy. Rather than strictly adhering to set curriculum outlines, teachers implement a responsive curriculum that supports both students' learning goals and appeals to their interests. All members of the school community are engaged in continuous reflection on improvement of students' knowledge and skills. School leaders are focused on developing not only the knowledge and skills, but also the features required across the system to effectively support 'significant, systematic and sustained change that secures success for all students'[6].

The literature review identified research by Danzig *et al*. (2005)[7] indicating leaders who are learner-centred are actively developing leadership capacity and sustainable practices throughout their school communities. They are promoting learning about key educational topics through research and sharing of practice. Equity and diversity are present in their leadership in order to best meet the needs of students.

Harris *et al*. (2013) note that collaborative support at all levels is required to make any major change in the culture of a school. Student-centred leaders must establish a collective vision and develop the capacity for critical reflection, building structures for ongoing professional learning for all staff.

4 *Harris, J., Spina, N., Ehrich, L. and Smeed, D. (2013:2) Literature review: Student-centred schools make the difference. Australian Institute for Teaching and School Leadership, Melbourne.*

5 *Thomson, P. and Comber, B. (2003:5) Deficient 'disadvantaged students' or media-savvy meaning makers? Engaging new metaphors for redesigning classrooms and pedagogies', McGill Journal of Education, vol. 38, no. 2, pp. 305–327.*

6 *Caldwell, B, J. and Harris, B. (2008:3) Why not the best schools?, ACER Press, Camberwell, Victoria.*

7 *Danzig, A., Osanloo, A., Blankson, G. & Kiltz, G. (2005), 'Learner centered leadership for language diverse schools in high needs urban setting: findings from a university and multi-district partnership', paper presented at the American Educational Research Association Montreal, Canada*

The literature review also highlighted research by Vavrus *et al* (2011)[8] stating that one of the most complex elements of introducing student-centred approaches to teaching and learning is a potential dramatic shift in the previous paradigms of how quality teaching is perceived. The focus changes from how to successfully cover the curriculum to understanding and supporting student learning in student-centred schools.

Harris *et al*. (2013) noted research by Black (2006) in regard to schools demonstrating successful implementation of personalised or student-centred approaches to learning. The research showed that students who experienced these approaches have shown 'greater confidence, more on-task learning behaviours, improved group dynamics and a greater ability to respond to a challenging curriculum'[9].

How this relates to the future of education in the ACT:

The Future of Education strategy positions all schools toward a student-centred approach to learning. With their wellbeing needs met, each student treads their own education pathway informed by their developing interests, knowledge and skills.

Similar to the *Mission Australia Youth Survey Report*, feedback received through the Future of Education conversation identified the important connection between mental health and learning. Harris *et al*. (2013) highlight that a positive difference to the outcomes of all students can be achieved through student-centred approaches to teaching and learning. With a collective vision, and agreed student-centred approaches to teaching and learning, there is an opportunity to shift how education is delivered.

8 *Vavrus, F., Thomas, M. and Bartlett, L. (2011) Ensuring Quality by attending to inquiry: learner- pedagogy in sub-Saharan Africa, International Institute for Capacity Building in Africa, UNESCO, Addis Ababa*

9 *Black, R. (2006) 'Overcoming disadvantage through the innovative classroom', paper presented at the Australian Association of Researchers in Education Conference, Adelaide.*

Placing 'students at the centre' is one of the four foundations of the Future of Education strategy. With a focus on the practices that prioritise and support the engagement of every student in their learning, young people are active participants in their learning. Student agency exists within the learning environment and young people make informed choices about what and how they learn. Student wellbeing is acknowledged as essential to learning and achieved by ensuring students are resilient and equipped for the future, through enhanced student supports.

During the first phase of implementation of the Future of Education, the ACT Government will:

- Expand and evaluate effective rigorous inquiry and project-based learning models.
- Ensure students have a voice in their schooling and that their learning is personalised and flexible.
- Position 21st century capabilities as an increasing focus within the current curriculum.
- Enhance student wellbeing and psychological supports, and identify effective case co-ordination approaches to ensure students are resilient and equipped for the future.
- Identify and build upon evidence-based approaches to successful transitions and implement programs such as the Continuum of Education Support Framework in government high schools.
- Continue to strengthen cultural integrity for all Aboriginal and Torres Strait Islander students.

EMPOWERED LEARNING PROFESSIONALS

Hattie, J.

- **(2009) *Visible Learning: A synthesis of over 800 meta-analyses relating to achievement.* London: Routledge.**
- **(2015) *What Doesn't Work in Education: The politics of distraction.* London: Pearson**
- **(2015) *What Works Best in Education: The politics of collaborative expertise.* London: Pearson.**
- **(2017) *250+ Influences on Student Achievement.* Visible Learning Plus website. https://www.visiblelearningplus.com/sites/default/files/250%20Influences%20Final.pdf. Accessed 31 May 2018.**
- **Zierer, K. (2018). *10 Mindframes for Visible Learning*. New York and Abingdon, Oxon: Routledge.**

About the research:

Professor John Hattie's seminal work about what works in education, *Visible Learning: A synthesis of over 800 meta-analyses relating to achievement* (2009), has provided a basis for evidence-informed decision making for principals through to senior education policy officers. Hattie has continued this work through an ongoing review of the latest research, and updating his ratings of what influences student achievement. He has made this information available through books, policy papers, videos and websites.

Important examples of his work are given above. Beyond the evidence-based influences on student achievement that Hattie identifies, an important contribution has been making accessible for school leaders the understanding and impact of 'effect sizes'. Hattie rates the various influences on student achievement, on whether they contribute greater than average expected growth. The following key insights are drawn from his substantial research publications.

Key insights:

Hattie's work confirmed that in developed countries the most important factor which a school has control over is what happens in the classroom. As well as the quality of the teaching, Hattie also identified the influence of a teacher's 'mindframe'; that is their beliefs about both learning and their role as a teacher. Hattie and Zierer (2018) identified ten mindframes which, when acted from, have a significant positive impact on student achievement.

Outside the classroom Hattie has identified areas in which the school has a positive influence. Three examples are; acceleration of gifted students has a greater impact on student achievement for these students compared to other approaches (such as ability grouping), every teacher in the school believing that they can make a difference, and a school-wide structured approach to identifying and intervening in student learning difficulties.

Hattie has also identified approaches that, despite common beliefs, do not have a substantive impact on student achievement. These include reduced class sizes, holding a student back a year, and performance pay for teachers.

How this relates to the future of education in the ACT:

21st century capabilities are a key focus within the Future of Education strategy. Teaching the skills that underpin 21st century capabilities have strong support in the studies reviewed by Hattie. For example, problem-solving teaching[10], elaboration and organisation, evaluation and reflection, meta-cognitive strategies, help seeking, self-regulation strategies, self-verbalisation and self-questioning, and strategy monitoring.

Furthermore, the Future of Education strategy has actions which will focus on establishing common, school-wide evidence-based approaches to identifying, intervening and monitoring student learning. Hattie has found that a structured school wide approach to identifying and responding to learning difficulties has a highly significant impact on student achievement.

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10 If the education approach effect size is rated over d=0.40 then using this approach will result in above average growth in student achievement.

Weldon, P. (2015) *The Teacher Workforce in Australia: Supply, Demand and Data Issues*. Policy Insights: Issue 2, Australian Council for Educational Research.

About the research:

Weldon's (2015) paper provides a brief overview of the current teacher workforce in Australia. It highlights workforce trends, projected growth and areas where the collection and analysis of additional data may assist in the targeting of effective policy.

Key insights:

Weldon's (2015) research outlines "demand for teachers is on the rise. The population of primary students is set to increase dramatically over the next ten years. Secondary schools will start to see the increase flow through from 2018".[11] This is consistent with enrolment projections in the ACT.

The supply of teachers varies across the states and territories in Australia. Weldon (2015) suggests most states currently have an oversupply of generalist primary teachers. In secondary schools across the states there is more variability in terms of the availability of teachers across subject areas. Teachers in subjects such as mathematics, physics, languages and IT are examples of those in short supply in some areas.

Despite a shorter supply of teachers in specialist subjects, data in Weldon's (2015) report suggests that 'out-of-field teaching' (i.e. teaching subjects without training in that area) appears to have dropped in the period between 2010 and 2013 as captured within the *Staff in Australia's Schools* (SiAS) survey. Although these levels have dropped, Weldon (2015) notes "out-of-field teaching remains a concern."[12] He identifies that out-of-field teaching appears more likely to take place in classes at lower year levels, suggesting this could be a result of the importance of good results in the senior years. Given this, more experienced teachers are more likely to be teaching the higher year levels within a school.

Weldon (2015) acknowledges that there is more difficulty attracting and retaining teachers in regional and remote areas than in metropolitan areas, and this is across all levels of teaching.

11 *Weldon, P. (2015:1) The Teacher Workforce in Australia: Supply, Demand and Data Issues. Policy Insights: Issue 2, Australian Council for Educational Research.*
12 *Weldon, P. (2015:9) Ibid.*

How this relates to the future of education in the ACT:

To deliver the best outcomes for students, systems need to ensure ACT schools have the best possible teaching workforce working within every learning environment. Learning professionals must be empowered to deliver flexible 21st century learning that meets the needs of all students.

Weldon (2015) highlights the issues facing the education workforce, including a shortage of teachers in schools, with demand set to rise steadily over the next ten years. He also notes that while the number of out-of-field teachers has dropped, there are a number of subject areas where teachers are in short supply.

The Future of Education strategy has an explicit focus on empowered learning professionals. This includes developing a workforce plan that ensures schools attract highly capable educators as well as providing intern programs for new educators and new principals. The strategy acknowledges the core role of teachers is educative but they work within the broader support system that assists student learning. Through empowered learning professionals, schools are inclusive learning communities that support all children and young people to learn.

During the first phase of implementation of the Future of Education, the ACT Government will:

- Develop recruitment processes and incentives to identify the right new staff, strengthen internship models for new teachers and principals, and design a workforce plan to increase diversity and expertise in the school workforce.
- Build upon and expand learning opportunities through professional learning communities within and across schools.
- Invest in school staff and work towards ensuring a highly accomplished and lead teacher is in every school.
- Increase consistency in supporting teachers' knowledge, skills and confidence with a focus on 21st century capabilities, personalised learning, impact of teaching, student wellbeing and inclusion.
- Ensure that school leaders are supported in strengthening their instructional and data literacy leadership roles and community partnership skills.
- Introduce a more structured approach to teacher mentoring for early career teachers, including training for mentors, to support best practice approaches.
- Build on the ACT Teacher Quality Institute's (TQI) work to provide a framework for professional experience during initial teacher education.

STRONG COMMUNITIES OF LEARNING

Maier, A., Daniel, J., Oakes J. and Lamb, L. (2017) ***Community Schools as an Effective School Improvement Strategy: A Review of the Evidence.*** **Learning Policy Institute and National Education Policy Centre.**

About the research:

An American study, the report provides a synthesis of the research evidence surrounding the impact upon student and school outcomes of community schools. The report's aim is to "support and inform school, community, district, and state leaders as they consider, propose, or implement community schools as a strategy for providing equitable, high quality education to all young people".[13] Findings can inform thinking about community schools in a local context.

Maier *et al.* (2017) identify that the way in which community schools operate is dependent upon their local context. They outline four features or 'pillars' that appear across most community schools:

1. Integrated student supports;
2. Expanded learning time and opportunities;
3. Family and community engagement; and
4. Collaborative leadership and practice.

The report examines 143 research studies against the four pillars. Evaluation studies of community schools are also examined.

Key insights:

Maier *et al.* (2017) notes "well implemented community schools lead to improvement in student and school outcomes and contribute to meeting the educational needs of low-achieving students in high poverty schools. Promising evidence supports the positive impact of the type of collaborative leadership and practice found in community schools."[14]

13 *Maier, A., Daniel, J., Oakes J. and Lamb, L. (2017:v) Community Schools as an Effective School Improvement Strategy: A Review of the Evidence. Learning Policy Institute and National Education Policy Centre.*

14 *Maier et al., (2017:v) Ibid.*

The report's findings[15] demonstrate the four key pillars of community schools promote conditions and practices found in high-quality schools and address out-of-school barriers to learning. The meaningful family and community engagement found in community schools is associated with positive student outcomes, such as reduced absenteeism, improved academic outcomes, and student reports of more positive school climates. The evidence base provides a strong warrant for using community schools to meet the needs of low-achieving students in high-poverty schools and to help close opportunity and achievement gaps for students. The collaborative leadership, practice, and relationships found in community schools can create the conditions necessary to improve student learning and wellbeing, as well as improve relationships within and beyond the school walls. Effective implementation and sufficient exposure to services are both required to increase the success of a community schools approach.

15 *Maier et al., (2017:vi-vii) Ibid.*

Bentley, T. and Cazaly, C. (2015) *The shared work of learning: Lifting educational achievement through collaboration*. Mitchell Institute Research Report No. 03/2015, Mitchell Institute for Health and Education Policy and the Centre for Strategic Education, Melbourne.

About the research:

The Mitchell Institute for Health and Education Policy is an independent think tank within Victoria University that aims to improve the connection between evidence and public policy reform. The report presents findings and recommendations from analysis undertaken by both the Mitchell Institute and the Centre for Strategic Education. Research examined "the role of collaboration in overcoming community disadvantage and lifting student achievement and sets out an agenda for systemic change to support the benefits of purposeful collaboration at scale".[16]

Key insights:

Bentley and Cazaly (2015) outline "many young people in Australia are starting behind in their education and staying behind, and many are disengaging from school."[17] They identify that student achievement overall is not improving across Australia with wide gaps between high and low achieving, and between well-off and disadvantaged students.

Case studies demonstrate that collaboration can be used in practice to achieve sustained improvement in student outcomes. In some disadvantaged community settings, where families are experiencing multiple challenges, working collaboratively was found to be integral to the way that schools, and their partners, pursue student achievement.

Bentley and Cazaly (2015) identify that strong professional collaboration was deeply imbedded in the culture and organisation of the case study schools. This collaboration was used "to support, sustain, evaluate and refine professional learning about teaching and learning strategies."[18] The study also noted that an essential part of the daily practice was professionally collaborating about data, expertise and relevant practice.

Furthermore, collaboration with other schools, universities, employers and community organisations was identified as playing an important role in providing the structure, resources and expertise for student achievement. Collaboration with students, parents and the community, which builds trust and social capital, was found to be important in supporting a culture of high expectations, shared responsibility and student learning. Bentley and Cazaly (2015) summarised that "in effect, each school is actively constructing its own local learning system, actively seeking out connections and resources, and using collaboration to translate them into actions that will create positive outcomes for students."[19]

16 *Bentley, T. and Cazaly, C. (2015:3) The shared work of learning: Lifting educational achievement through collaboration. Mitchell Institute Research Report No. 03/2015, Mitchell Institute for Health and Education Policy and the Centre for Strategic Education, Melbourne.*
17 *Bentley, T. and Cazaly, C. (2015:1) Ibid.*
18 *Bentley, T. and Cazaly, C. (2015:5) Ibid.*
19 *Bentley, T. and Cazaly, C. (2015:5) Ibid.*

Bentley and Cazaly (2015:7) recommend a system-wide focus on the fundamentals of teaching and learning, and locating that focus within a teaching context of professional collaboration and strong wider relationships to support and sustain student learning outcomes in 21st century communities. The report suggests that policymakers and education system leaders must think differently about the composition of education systems, viewing them as complex and adaptive systems comprising a series of relationships through which a wide range of people and activities are coordinated. To produce greater returns, a school system needs to be defined as a set of relationships and activities that meet a shared purpose over time, rather than collections of discrete entities with formal functions defined by policy and legislation and whose performance is determined by formal measurement.[20]

How this relates to the future of education in the ACT:

Community involvement within ACT schools is fundamental to delivering the best outcomes for students and young people. Schools are an integral part of a broader human service system that builds relationships and brings services and people together to meet the diverse needs of students and their families.

20 *Bentley, T. and Cazaly, C. (2015:7) Ibid.*

Maier *et al.* (2017) details the positive impact community schools can have upon student and school outcomes, including meeting the needs of low-achieving students. They note that meaningful family and community engagement and integrated student supports provided by community schools has a strong positive effect on student outcomes. Bentley and Cazaly (2015) discuss the importance of collaboration being at the heart of achieving sustained improvement in student outcomes. Education systems need to be viewed as an inter-related series of relationships through which a wide range of people and activities are co-ordinated to develop the whole student.

The Future of Education strategy recognises 'strong communities for learning'. The strategy recognises that the development of children and young people within an education environment must integrate community resources that surround schools. Actions within the strategy include schools developing strong partnerships with parents, community and government agencies, and businesses, as well as leveraging community engagement in early childhood years to ensure the best start to school for children.

During the first phase of implementation of the Future of Education, the ACT Government will:

- Identify, build upon and trial effective community school models that partner with community agencies and businesses to ensure schools support student and family needs. This could include out-of-hours programs and partnerships with agencies to support families, particularly those who are marginalised or experiencing disadvantage.
- Identify and develop models of partnerships between early childhood providers, community and government agencies, and primary schools to ensure that young children (3-8 year olds) have the strongest possible start to their education journey.
- Collaborate across sectors to review policy and service designs, shared personal development and accessing multidisciplinary support.

SYSTEMS SUPPORTING LEARNING

Barber, M. and Mourshed, M. (2007) *How the world's best-performing school systems come out on top.* McKinsey & Company.

About the research:

International comparisons, such as the *Programme for International Student Assessment* (PISA), provide a regular and direct comparison of educational outcomes across education systems. However, measuring performance does not automatically provide insights into what policy and practice can be used to assist students with their learning, help education systems with their practice and outline how schools can operate more effectively.

The OECD commissioned McKinsey and Company's (2007) report to link "quantitative results with qualitative insights on what high-performing and rapidly improving schools systems have in common" and to provide "policy makers with a unique tool to bring about improvements in schooling".[21]

Key insights:

Barber and Mourshed (2007) note that there are multiple different methods that can be employed to improve a school system. The difficulty of the task and the uncertainty of outcomes is reflected within the international debate about how best to undertake the task.

The report outlines that "the experiences of top school systems suggests three things matter most:

1. getting the right people to become teachers
2. developing them into effective instructors; and
3. ensuring that the system is able to deliver the best possible instruction for every child."[22]

Barber and Mourshed (2007:2) note that top performing systems have demonstrated that substantial improvement in outcomes is possible in a short period of time, and that "applying these best practices universally could have enormous impact in improving failing school systems, wherever they might be located."[23]

21 *Barber, M. and Mourshed, M. (2007:6) How the world's best-performing school systems come out on top. McKinsey & Company.*
22 *Barber, M. and Mourshed, M. (2007:2) How the world's best-performing school systems come out on top. McKinsey & Company.*
23 *Barber, M. and Mourshed, M. (2007:2) Ibid.*

Jensen, B. (2010) *Measuring What Matters: Student Progress.* Grattan Institute.

About the research:

Dr Ben Jensen is the Program Director of School Education at the Grattan Institute. The Institute is an independent think-tank that aims to improve Australian public policy outcomes through engagement with both decision makers and the community.

Jensen (2010) advocates for a change in focus towards value-added measures of school performance. Value-added scores consider the growth of student learning over a defined period of time and account for background circumstance. Focussing on value-added measures creates a fairer system which focusses on student progress and is more effective in improving teacher instruction and student learning.

Key insights:

Jensen (2010) notes "accurate measures of school performance are vital to improvement. The measures need to focus on student progress so that schools and teachers can focus on improving all students – particularly those most in need".[24]

The report outlines that the publication of school performance measures is an important move towards achieving transparency and improving the standards of the education system in Australia. However Jensen (2010) highlights that the school performance measures published on the 'My School' website are "are prone to mismeasurement and may be biased against schools serving lower socio-economic communities".[25]

Value-added scores are identified by Jensen as more accurately measuring school performance. Benefits of value-added measures of school performance include a sharpened focus towards how students learn and progress. Jensen (2010) suggests that the use of value-added measures by teachers and school leaders to improve instruction, programs and school improvement measures should be encouraged.

24 *Jensen, B. (2010:4) Measuring What Matters: Student Progress. Grattan Institute.*
25 *Jensen, B. (2010:4) Ibid.*

How this relates to the future of education in the ACT:

All schools and systems in the Territory must continually strengthen their orientation toward achieving equitable outcomes, identifying excellence and ensuring supports are targeted to where they are needed most.

Barber and Mourshed (2007) note that top performing school systems demonstrate three things that matter most: getting the right people to become teachers; developing them into effective instructors; and ensuring that the system is able to deliver the best possible instruction for every child. Jensen (2010) argues for a focus on student progress as a way of improving results for all students.

The Future of Education strategy acknowledges 'systems supporting learning' to ensure that an integrated system offers a range of pathways for young people, to deliver the best possible education for every child. Teachers will be supported to identify and build upon evidence-based practices to address the learning and wellbeing needs of students. Activity within this foundation will enhance performance measures and datasets to support schools understand both student wellbeing and learning growth.

During the first phase of implementation of the Future of Education, the ACT Government will:

- Develop an Early Childhood Strategy for the ACT, with an emphasis on helping each child gain a strong start through quality and accessible early childhood education.
- Review and amend the *Education Act 2004* to strengthen student agency, equity, access and inclusion.
- Review and amend the *ACT Teacher Quality Institute Act 2010* to strengthen the regulatory framework for teachers.
- Enhance the role of the ACT TQI to share excellent practice and contemporary research evidence across the ACT and explore the creation of an ACT teaching evidence clearing house, possibly as an extension of the TQI.
- Leverage national efforts to develop digital formative assessment tools to monitor and evaluate student progress and the impact of teaching strategies throughout their schooling.
- Develop and implement a model for 'research and development' schools to identify and build upon evidence-based approaches and interventions that successfully address student learning and wellbeing needs.
- Develop and implement an accountability framework that robustly measures the results of this strategy.
- Enhance performance measures and data sets to help schools pursue learning and wellbeing growth.
- Design and trial digital technology to deliver and monitor personalised learning programs and enable educational access across different settings.
- Review and build upon existing policies, supports and practices that enhance personalised learning, student agency and 21st century capabilities particularly with regard to the learning needs in the middle and older years.

EQUITY

Organisation for Economic Co-operation and Development (2012) *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*, OECD Publishing.

About the research:

The OECD (2012) identify that 'across OECD countries, almost one in every five students does not reach a basic minimum level of skills. In addition, students from disadvantaged socio-economic backgrounds are twice as likely to be low performers'.[26]

The report presents policy recommendations for education systems to help all children succeed in their schooling, noting that the highest performing education systems across OECD countries combine quality with equity.

Key insights:

The highest performing education systems across OECD countries are those that combine quality with equity. The OECD (2012) recommend a focus on both quality and equity. The report proposes that to address school failure and disengagement, policies are required that direct investment in students early and continue to invest through to upper secondary education. This investment will enable students to obtain the skills and knowledge they will need for effective social and labour market participation.

The OECD (2012) note the 'way education systems are designed can exacerbate initial inequities and have a negative impact on student motivation and engagement, eventually leading to dropout'.[27] Education systems must avoid policies conducive to school and student failure and the OECD (2012:10-11) recommends five areas that can assist in preventing this failure:

> Eliminate grade repetition;

> Avoid early streaming (including deferring student selection to upper secondary);

> Manage school choice to avoid segregation and increased inequities;

> Make funding strategies responsive to student and school need; and

> Design equivalent upper secondary education pathways to ensure completion.[28]

The OECD (2012:11-12) also provides five policy recommendations which have shown to be effective in supporting the improvement of low performing disadvantaged schools:

> Strengthen and support school leadership;

> Stimulate a supportive school climate and environment for learning;

> Attract, support and retain high quality teachers;

> Ensure effective classroom learning strategies; and

> Prioritise linking schools with parents and communities.[29]

26 *Organisation for Economic Co-operation and Development (2012:168) Equity and Quality in Education: Supporting Disadvantaged Students and Schools, OECD Publishing.*
27 *Organisation for Economic Co-operation and Development (2012:10) Ibid.*
28 *Organisation for Economic Co-operation and Development (2012:10-11) Ibid.*
29 *Organisation for Economic Co-operation and Development (2012:11-12) Ibid.*

Tanton, R., Miranti, R. and Vidyattama, Y. (2017) *Hidden disadvantage in the ACT: Report for ACT Anti-Poverty Week.* NATSEM, Institute for Governance and Policy Analysis (IGPA), University of Canberra. Report commissioned by the ACT Council of Social Service Inc.

About the research:

For Anti-Poverty Week 2017, a group of ACT community sector organisations engaged the National Centre for Social and Economic Modelling (NATSEM) to help build a better understanding of disadvantage in the ACT. The report was designed to assist in the development of services, policies and advocacy aimed at supporting people living with disadvantage and reducing levels of disadvantage in the ACT.

Key insights:

Tanton *et al.* (2017) highlights that despite general advantage, there is still a need to address poverty and disadvantage in Canberra. Twelve per cent of children across the ACT are living in low income households as defined by measures relating to housing affordability, level of education and income. Tanton *et al.* (2017) identified six small areas[30] in the ACT where the proportion of children living in low income households was 50 per cent or more. The report also noted five per cent of the ACT population did not complete Year 10 and were no longer at school. This is in comparison to the Australian capital city average of 10 per cent.

Nearly one in five small areas in the ACT experienced more than two indicators of disadvantage and one in ten experienced three or more. An understanding of hidden disadvantage must inform the development of policies and services aimed at providing support and reducing disadvantage in the ACT.

30 *Small areas used in the report are the Australian Bureau of Statistics (ABS) Statistical Area Level 1 (SA1). SA1s have an average of 150 households.*

How this relates to the future of education in the ACT:

Equity, as expressed within the Future of Education strategy, is understanding that individual students need different things to achieve positive outcomes in life. It recognises that not everyone starts from the same place.

The OECD (2012) report highlights that the highest performing education systems across OECD countries are those that combine quality with equity. To achieve this, systems must invest early in students, and continue to invest through to upper secondary education. This can be achieved by employing high quality teachers and strengthening and supporting school leadership, as well as ensuring effective classroom learning strategies and stimulating a supportive school environment with strong links to parents and the community. Tanton *et al.* (2017) notes that whilst Canberra is known for its advantage, there is still a significant proportion of the population who are experiencing disadvantage within the ACT. Policies and services need to be developed that provide support and reduce hidden disadvantage.

Education within the ACT must ensure the achievement of all children and young people regardless of economic, social and cultural factors. The Future of Education strategy provides a strengthened approach to equity and will ensure that both equity and quality is at the forefront of school initiatives and programs. A focus on personalised learning will provide a differentiated approach to learning, and partnerships with community agencies and businesses will be strengthened to help schools best meet student and family needs.

STUDENT AGENCY

Organisation for Economic Co-operation and Development (2018) *The Future of Education and Skills: Education 2030*. OECD Publishing.

About the research:

The OECD Learning Framework 2030 provides a vision and underlying principles for education systems into the future. The Learning Framework provides suggestions rather than mandating future directions. It has been co-created by representatives of Governments and a community of partners that include experts, school leaders and teachers, students, parents and local organisations. Insights below note the pertinent elements within the report relating to student agency.

Key insights:

The OECD (2013) notes "in the face of an increasingly volatile, uncertain, complex and ambiguous world, education can make the difference as to whether people embrace the challenges they are confronted with or whether they are defeated by them".[31]

In the 21st century, the OECD suggests that wellbeing refers to more than an abundance of material resources, such as a good income, job and housing security. Wellbeing is also connected to a person's quality of life, including their positive social connections, life satisfaction, level of education and health. Ensuring everyone has equitable access to this quality of life underpins the concept of inclusive growth.

The OECD (2018) explains that education plays an essential part in the development of "knowledge, skills, attitudes and values that enable people to contribute to and benefit from an inclusive and sustainable future".[32] There is a need for education to ensure students are equipped with the skills and values they need to become confident members of the community, rather than just preparing them for the workplace.

Students who are well prepared for the future will be able to exercise agency in their lives and in their education. Educators must also encourage and enable this agency, by recognising the individuality of their learners and the relationships that impacts a student's learning.

31 *Organisation for Economic Co-operation and Development (2018:3) The Future of Education and Skills: Education 2030. OECD Publishing.*

32 *Organisation for Economic Co-operation and Development (2018:4) The Future of Education and Skills: Education 2030. OECD Publishing*

The OECD (2018) states "students who are best prepared for the future are change agents. They can have a positive impact on their surroundings, influence the future, understand others' intentions, actions and feelings, and anticipate the short and long-term consequences of what they do".[33]

To be confident and active citizens, students will need to negotiate through periods of uncertainty, across multiple facets of their lives, at different times and different contexts. There will also be a need to engage with the wider world, gaining a better understanding of its complexity and importance.

How this relates to the future of education in the ACT:

The OECD (2018) highlight that future-ready students need to exercise agency in their own education with the ability to influence others and situations expected in future roles.

Student agency, as expressed within the Future of Education strategy, refers to the level of control, autonomy, and power that a student experiences in an educational environment. Student agency is developed and expressed in partnership and with guidance from teachers. Student agency can be displayed in areas such as the choice of learning environment, subject matter, approach, and/or pace of learning. Future of Education feedback also noted student agency is also an important element in creating a sense of belonging at school.

33 *Organisation for Economic Co-operation and Development (2018:4) The Future of Education and Skills: Education 2030. OECD Publishing*

ACCESS

Lamb, S., Jackson, J., Walstab, A. and Huo, S. (2015) *Educational Opportunity in Australia 2015: Who Succeeds and Who Misses Out*, Centre for International Research on Education Systems, Victoria University, for the Mitchell Institute, Melbourne: Mitchell Institute.

About the research:

The report by Lamb *et al.* (2015) is a comprehensive data study into Australia's education and training system which draws together information on the opportunities available to young people as they progress through the various stages of education and training, working towards their transition into the workforce.

The findings are presented as an index of educational opportunity. The index measures how many students are on track and how many are missing important developmental milestones, as well as who catches up and who slips behind.

Key insights:

Milestone 1 – Readiness for school

Lamb *et al.* (2015) note that 78 per cent of Australian learners meet the designated milestone at the point of entry to school of being ready to learn. Of those missing the milestone:

> boys were 1.82 times more likely to do so than girls

> Indigenous learners were 2.07 times more likely to do so than non-Indigenous learners

> learners from the lowest socio-economic backgrounds were 2.08 times more likely to do so than learners from the highest socio-economic background.

Milestone 2 – Succeeding in the middle years

Lamb *et al.* (2015) identify that "28.4 per cent of Australian learners have not developed the core skills required to access educational opportunity in the middle years"[34] (based on Year 7 NAPLAN Reading). Of those missing the milestone:

> boys were identified as more likely to do so than girls

> Indigenous learners were identified as 2.32 times more likely to do so than non-Indigenous learners

> learners from families where the parents did not complete Year 12 were identified as 3.72 times more likely to do so than learners who come from families with at least one parent with a university degree.

Milestone 3 – Completing school by age 19

Lamb *et al.* (2015) identify that only 56 per cent of young people gain an Australian Tertiary Admission Rank (ATAR) that provides access to university. This milestone is connected to the background of students, with socio-economic background playing an important factor.

Approximately 26 per cent of young people do not receive a Year 12 or Certificate III equivalent by the time they turn 19 years of age. Of those missing the milestone:

> boys were identified as more likely to do so than girls

> Indigenous learners were more likely to do so than non-Indigenous learners

> learners from low socio-economic backgrounds were more likely to do so than learners from high socio-economic backgrounds.

Milestone 4 – Engaged in education, training or work at age 24

Lamb *et al.* (2015) identified that, for differing reasons, 26.5 per cent of Australians at age 24 are neither in full time employment or participating in some form of study.

Those who are not fully engaged in education or work tend to be from low socio-economic backgrounds and are disproportionately female. They are often located in regional and remote locations and Indigenous. Not completing Year 12 and not achieving well in school means students are much less likely to have access to Australia's economic, political, and social opportunities.

34 *Lamb, S., Jackson, J., Walstab, A. and Huo, S. (2015:v) Educational Opportunity in Australia 2015: Who Succeeds and Who Misses Out, Centre for International Research on Education Systems, Victoria University, for the Mitchell Institute, Melbourne: Mitchell Institute.*

Shaddock, A., Packer, S., and Roy, A. (2015) *Schools for All Children & Young People: Report of the Expert Panel on Students with Complex Needs and Challenging Behaviour*, November 2015, ACT Government.

About the research:

In May 2015, the then ACT Minister for Education and Training established an Expert Panel (the Panel) to review policy and practice in all ACT schools with regard to students with complex needs and challenging behaviour and to provide a report to the ACT Government.

Key insights:

Shaddock *et al.* (2015) reviewed the way ACT schools respond to the diverse and unique needs of children and young people within the ACT community. The report noted that schools are for all students and they must meet their legal obligations to both their students and their staff.

The report identified that schools must access a range of professionals and use them effectively, and for some students and their families, collaboration with other agencies is essential in providing appropriate support. The report recommended that the resources that are available must be used in flexible and innovative ways.

Shaddock *et al.* (2015) also noted the importance of good policy in providing guidance, and support for effective practice. Furthermore, good placements, settings, physical environments and infrastructure support positive behaviour. Positive relationships were also acknowledged as essential in improving student engagement and learning.

How this relates to the future of education in the ACT:

Access, as expressed within the Future of Education strategy, refers to the ways in which systems and schools ensure that students have the opportunities they need to take full advantage of their education. Schools must offer opportunities to all students and provide additional services or remove any actual or potential barriers that prevent some students from participation in certain courses, educational activities or academic programs.

Lamb *et al*. (2015) demonstrate the inability to access learning in the early years can have a flow-on effect throughout a student's educational journey and into their adult years. Shaddock *et al.* (2015) emphasise the legal obligation that schools have to enable access for students, along with ways of addressing barriers.

Access to high quality learning opportunities is a central principle of the Future of Education. Providing additional support or removing barriers so students with a disability or disadvantaged students can access learning programs can be seen in the actions within the strategy. These actions include enhancing student wellbeing and psychological supports, building a diverse workforce, ensuring young children have the best start to their education journey, building culturally aware environments that welcome Aboriginal and Torres Strait Islander children and their families and strengthening digital platforms to allow educational access across settings.

INCLUSION

Forlin, C., Chambers, D., Loreman, T., Deppeler, J. and Sharma, U. (2013) ***Inclusive Education for Students with Disability: A review of the best evidence in relation to theory and practice.*** **Australian Research Alliance for Children and Youth.**

About the research:

The report was commissioned for the Australian Government Department of Education, Employment and Workplace Relations (DEEWR) by the Australian Research Alliance for Children and Youth (ARACY). The focus area of investigation was inclusive education, with the aim to understand elements that work in improving student achievement and school attendance for students with a disability. The report provides a synopsis of inclusive education in Australian and international contexts.

Key insights:

Forlin *et al.* (2013) note that "international human rights agreements, covenants, and legislation, provide definitions of inclusion that focus on equity, access, opportunity and rights."[35] The report references Shaddock *et al.* (2009)[36] to suggest that if participation becomes an issue for any student, whether it is related to disability, gender, socio-economic background, behaviour, culture or any other reason, there is a need to expand mainstream thinking to consider if structures and practices meet the needs of all students, rather than establishing special programs for individuals.

Further reference is made to Shaddock (2006)[37] list of barriers to inclusion perceived by teachers which include; issues relating to time, capability to differentiate teaching practice to meet diverse learning needs, inadequate training and resources, and insufficient support within the school. This can be in addition to beliefs that adjustments for particular students can have an impact upon others, draw attention to difference and do not adequately prepare students for real life.

The successful implementation of policy reform to create fully inclusive learning environments requires considerable changes in the way education is delivered to all students. It also is dependent upon the attitudes of teachers and school leaders towards inclusion, as well as support provided to implement changes.

35 *Forlin, C., Chambers, D., Loreman, T., Deppeler, J and Sharma, U. (2013) Inclusive Education for Students with Disability: A review of the best evidence in relation to theory and practice. Australian Research Alliance for Children and Youth.*

36 *Shaddock, A., MacDonald, N., Hook, J. Giorcelli, L. & Arthur-Kelly, M. (2009). Disability, diversity and tides that lift all boats: Review of special education in the ACT. Chiswick, NSW: Services Initiatives.*

37 *Shaddock, T. (2006, May). Students with disability in the mainstream: What works for teachers and students? Paper presented at the Cheri Conference, Westmead, NSW.*

In describing the successful development of inclusive schools, Forlin *et al*, (2013) refer to Winter and O'Raw's (2010) list of characteristics:

> understanding and acknowledging inclusion as a continuing and evolving process.

> creating learning environments that respond to the needs of all learners to achieve the greatest impact on their social, emotional, physical and cognitive development.

> undertaking a broad, relevant, appropriate and stimulating curriculum that can be adapted to meet the needs of diverse learners.

> strengthening and sustaining the participation of pupils, teachers, parents and community members in the work of the school.

> providing educational settings that focus on identifying and reducing barriers to learning and participation.

> restructuring the cultures, policies and practices in schools to respond to the diversity of pupils within the locality.

> identifying and providing the necessary support for teachers, other staff and pupils.

> engaging in appropriate training and professional development for all staff.

> ensuring the availability of fully transparent and accessible information on inclusive policies and practices within the school for pupils, parents, support staff and other persons who are involved in the education of the pupil".[38]

Cologon, K. (2013) *Inclusion in Education: Towards Equality for Students with Disability*, Children with a Disability Australia.

About the research:

Cologon (2013) notes the Australian Government has committed to inclusive education, however in reality for children and families, there are a significant number of barriers to the realisation of this right. The paper addresses the meaning of the term 'inclusive education' through a meta-analysis of more than 170 research papers. Cologon (2013) also explores the outcomes of inclusive education, as well as barriers to, or facilitators of, inclusive education. The paper identifies and responds to gaps in current understanding with the aim of providing a strong base to inform research-based policy development.

38 *Winter, E., & O'Raw, P. (2010). Literature review of the principles and practices relating to inclusive education for children with special educational needs. Trim, Ireland: National Council for Special Education, in Cologon, K. (2013:7) Inclusion in Education: Towards Equality for Students with Disability, Children with a Disability Australia.*

Key insights:

Cologon (2013) explains "while inclusion is about everyone, children who experience disability are amongst the most excluded groups, thus particular attention to the rights of people who experience disability is required".[39]

Inclusive education recognises that every child has the right to be included and the right to the best possible education through adapting environments and teaching approaches to ensure the participation of all children.

The terminology of 'inclusive education' often refers to a student placed in a mainstream classroom, rather than when a child is wholly participating in all elements of the educational setting. Being physically located in a mainstream setting does not define successful inclusion.

Cologon (2013) explains that research shows those children who experience disability, and who are fully and successfully participating in mainstream settings:

> have better academic and vocational outcomes, when compared to children who are educated in segregated settings

> have higher scores on achievement tests, than children who are in non-inclusive settings

> have equal or better academic outcomes compared to children participating in non-inclusive settings.

Cologon (2013) also identifies that teachers working in mainstream settings develop confidence in their ability to be inclusive educators, have an increased positive attitude towards inclusion, experienced professional growth and increased personal satisfaction.

39 *Cologon, K. (2013:8) Inclusion in Education: Towards Equality for Students with Disability, Children with a Disability Australia.*

How this relates to the future of education in the ACT:

Inclusion, as expressed within the Future of Education strategy, means we have a system where every child and young person in every classroom in every school is supported to access and engage with high quality learning every day. They also have opportunities to actively participate in their school community.

The research by ARACY (2013) indicates that if participation becomes an issue for any student, then there is a need to expand mainstream thinking, structures, and practices so that all students are accommodated. To avoid barriers to inclusion, significant changes need to be made in the way education is provided to all students, and teachers and other professionals need to be well prepared to implement reform. Cologon's (2013) research highlighted the positive outcomes inclusive education has for both children who do and do not experience disability.

Inclusion is a central principle of the Future of Education strategy. Actions within the strategy include a focus on supporting education professionals to meet the diversity that exists in ACT classrooms by building an integrated human services response to meet student need. The strategy also includes continued growth in teachers' skills and confidence, as well as strengthened partnerships between schools and across agencies.

WHAT NEXT FOR THE FUTURE OF EDUCATION?

Masters (2015)[40] notes that some of the biggest challenges faced in education can appear hard to deal with. This is because the roots of these problems sometimes lie outside the reach of schools, or within deeply entrenched educational processes and structures that are difficult to change.

Masters (2015) explains that 'real reform and significant progress in improving the quality and equity of Australian schooling depends on tackling the deepest and more difficult educational challenges'.[41]

Masters (2015) presents these challenges as:

> raising the professional status of teaching

> reducing disparities between Australian schools

> designing a 21st-century curriculum

> promoting flexible learning arrangements focused on growth

> identifying and meeting the needs of children on trajectories of low achievement.

These five challenges were consistent with the feedback received from the ACT community throughout the Future of Education conversation. Furthermore, the review of educational research affirmed many of the ideas raised by the community throughout the conversation.

The voice of the ACT community has been integral to the development of the Future of Education strategy. Ideas expressed by the community regularly reflected the themes noted within the educational research. Whilst the educational research has provided a strong base, community input has driven and informed the future directions for education in the ACT.

The Future of Education Strategy aims to ensure that every child receives a great education and the life chances that flow from that. The resulting actions, to be taken in phases over the next ten years, will continue the close connection between community voice and educational research so that the vision expressed within the strategy becomes reality for each child and young person.

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40 Masters, G. (2015) 'Big five' challenges in school education. Teacher, 10 August 2015. Retrieved from https://www.teachermagazine.com.au/columnists/geoff-masters/big-five-challenges-in-school-education.

41 Masters, G. (2015:1) Ibid.

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