



with Disability

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September 2021

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How Well Are We Going?



Executive Summary

Rarely is a finding presenting no differences between two groups so important. The learning outcomes and experiences of students with disability is the same as those for students without disability in Big Picture Learning (BPL) Schools and Academies. The BPL design (the Design) is a design for ALL students in ALL school contexts in ALL settings. ALL students have the opportunity to demonstrate their strengths and experience success. The Design is personalised, strengthsbased and planned around students' individual interests. It emphasises the importance of relationships within the learning environment and the broader community, providing opportunities for students through out-learning experiences and the International Big Picture Learning Credential (IBPLC). These aspects of the Design have particular impact on the learning experience for students with disability. The current research provides the opportunity to explore and provide evidence for how the Design specifically supports students with disability in terms of improving engagement, fostering inclusion, and facilitating transitions.

For many reasons, the current educational options pose a number of problems for students with

disability. At times, students with disability may find their needs are not being effectively met in mainstream classes and in various special education support units. The students in BPL schools and academies are supported purely by the Design. The learning content, learning style, learning pace and approaches to communicate their learning are personalised and flexible, replacing out-dated curriculum, pedagogy, and assessment.

The proportion of students with a diagnosed disability in BPL is greater than the proportion of students with a diagnosed disability in mainstream. The mean percentage of students with a diagnosed disability in BPL is 22.5% (increasing to 49.7% when including numbers of undiagnosed students) compared to mainstream 18.1%. According to the Nationally Consistent Collection of Data, students in BPL receive fewer adjustments when compared to students in mainstream, and the level of adjustment received for BPL students overall is lower than that received by students in mainstream. The research acknowledges the contributions from the principals, advisors, students, and parents of ten BPL schools and academies in NSW. From these insights, together

with the comparison of data for students with disability in BPL with data for students without disability in BPL, and with data for students in mainstream schools, we have gained an understanding of the experiences of students with disability in BPL schools and academies.

All students reported significant academic and social growth since joining BPL. Overall, they feel more connected and "better in general". This research shows lower absenteeism, higher retention rates, fewer suspensions, and fewer negative incidents for students with disability enrolled in BPL compared to students with disability enrolled in mainstream. Since enrolling in BPL, students with disability report fewer incidences of bullying, more support from teachers, higher levels of school satisfaction and feeling more positive about their future. They experience a safe, supportive, and inclusive learning environment based on mutual respect.

Advisors develop strong relationships with students and know them well in terms of their strengths and challenges, wellbeing, aspirations, and family contexts. Students with disability in BPL demonstrate improvements with regard to engagement, behaviour, confidence, independence, relationships, achievements, and management of their disability. Parents reported that BPL was meeting the needs of their child with disability, noting academic, personal, emotional, and social improvements in their child since joining BPL. The Design not only supports students with disability, it has also been shown to reduce accompanying mental health and behavioural issues, and enhance wellbeing. Parents trust the Design to enable their child to reach their full potential and fulfil their goals.

Students with disability in BPL schools and academies had opportunities to apply their learning in real-world situations and had a clear vision of what they wanted to do after graduating. This provides students with the opportunity to develop

relevant skill sets for post-school aspirations, including real-world experience and relationships in areas of interest through internships. This builds an awareness of opportunities available and establishes achievable pathways within the community, and ensures students feel confident in achieving their goals.

All students have unique needs, abilities and interests that need to be considered in their learning environment. This research provides evidence that the Design supports all students in terms of academic outcomes and wellbeing through personalised learning that is both aligned with interests and relevant to the real world. Evidence exists that fundamental aspects of the Design, such as interests, practice, and relationships, have a positive impact on student wellbeing. Students with disability consistently report improvements in their experience of these 'measures' since being part of BPL.

The Design improves engagement and fosters inclusion for students with disability to successfully facilitate transitions from school to further education, training, and employment. A growing emphasis on the importance of wellbeing associated with a sense of purpose and belonging will in turn improve student achievement. It is important to understand the ongoing needs of advisors to enable them to effectively provide support for students. Finally, BPL always seeks the student voice to provide insight and inform practice. It is important for the value of this to be recognised when determining their needs.

"Big Picture students help each other out, no-one is better than anyone else, you are not compared to others. Everyone is good at something – Big Picture helps you find out what that is." (Student)

How Well Are We Going?

Introduction

"When a flower doesn't bloom, you fix the environment in which it grows, not the flower" (Alexander Den Heijer).

Every child is unique, with skills, qualities and attributes that create their individual identity.

This research provided the opportunity to investigate the ways in which the Big Picture Learning design improves engagement, fosters inclusion and facilitates transitions for students with disability. Big Picture Learning Australia has rewritten the four grammars of schooling – curriculum, pedagogy, assessment and organisational culture and practice - to ensure all students have the opportunity to demonstrate their strengths and experience success. The findings presented in this paper provide evidence that the Design:

1. Improves engagement:

Higher student attendance and improved learning outcomes indicate that students are more actively involved in their learning. This is a result of students being at the centre of their learning, with personalised learning plans created around their interests, having a sense of purpose, and with high expectations placed on each student to achieve their goals.

2. Fosters inclusion:

The advisory setting provides a safe and supportive environment for every student to be accepted and respected as an individual. Strong relationships and a sense of belonging can be developed over time with the same advisory teacher and fellow students. This provides students with confidence in their own diverse abilities and a sense of purpose and positive wellbeing.

Facilitates effective transitions to life beyond school.

The 'Learning Through Internship' (LTI) focus enables students to identify and develop their areas of interest whilst at school and create connections with mentors in the community. The IBPLC provides a comprehensive account of each student's achievements, skills, knowledge, and attributes at the completion of Year 12. These strategies assist students to identify appropriate pathways and transition smoothly and successfully into meaningful employment or further study after graduating.

"Disability in Australia can be traced back 20,000 years to the footprint of a one-legged Aboriginal man who used a walking aid to participate in a group hunt near Lake Mungo in New South Wales. His footprint shows that First Nations people with disability were active participants in community life. It is also symbolic of the inclusion that people with disability seek to achieve in Australia today."

(Attorney-General's Department, Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability: Interim Report, October 2020. p.57)

Background

Since 2012, BPLA has implemented a Design for Learning across 9 public school sites¹ and one private school in NSW and more than 40 sites across Australia since 2006. There is both local and international evidence for the effectiveness of the Design in enhancing the learning outcomes and wellbeing of students. At the heart of the Big Picture Learning design is a departure from traditional 'appointment learning' where everyone learns the same things according to a fixed timetable inside the four walls of a school. It involves a number of distinguishers (see Appendix A), including but not limited to:

- Smaller class sizes called advisories, with a single teacher and a ratio of 1:17,
- Personalised learning, where each student has an Individual Learning Plan driven by their interests which is plotted back to the curriculum,
- Regular, scheduled involvement of families (up to 8 times per year) in Learning Plan design and exhibitions (project presentations) keeping them informed and feeling supported,
- Engagement with the real world and the community via internships and other forms of out-learning, such as shadow days and exhibitions (project presentations),
- Formative assessment linked to demonstration of skills and knowledge,
- Clear pathways to further study and employment post-school.

Nationally Consistent Collection of Data (NCCD) collects information about Australian school students who require educational adjustments to address specific learning and/or behavioural needs. All students are on an Individual Education Plan (IEP) and the level of adjustment required will

depend on the specific needs of each student. Students may or may not have a diagnosed disability. The Productivity Commission (2019) reports that 18.8% of all Australian primary and secondary students (around 725,000 students in 2017) received an adjustment to participate in education because of disability (AIHW, 2020a, p.97). Disabilities are classified according to four broad categories in the NCCD – physical, cognitive, sensory and social/emotional (see Appendix B).

The Big Picture Learning design is a design for all students, accommodating all levels of ability and sufficiently flexible to be applied to any demographic context, including location, SES and school type. Some students in BPL fit into multiple categories of disadvantage, one of which is disability, which is to be investigated in this research. However, it is important to be mindful of the cumulative nature of disadvantage for those students who fit into more than one marginalised group. The disabilities of students within BPL schools and academies include, but are not limited to, intellectual disabilities (mild - IM; moderate - IO), neurological disorders (ADHD, Tourette's syndrome, injury from drug abuse or trauma, Foetal Alcohol Syndrome), learning difficulties (dyslexia, dysgraphia), physical disabilities, sensory disabilities, autism spectrum disorder and mental health problems: internalising - MH1; externalising - MH2; both - MH3 (anxiety disorders - social phobia, separation anxiety disorder, generalised anxiety disorder, panic disorder, agoraphobia, post-traumatic stress disorder and obsessive-compulsive disorder; affective disorders - depression, dysthymia, bipolar disorder; eating disorders; substance use disorders; social/ emotional issues associated with social isolation and bullying), and other behavioural disorders (ODD).

^{1.} Big Picture Learning academies have been introduced in additional 5 schools in NSW since this research was conducted.

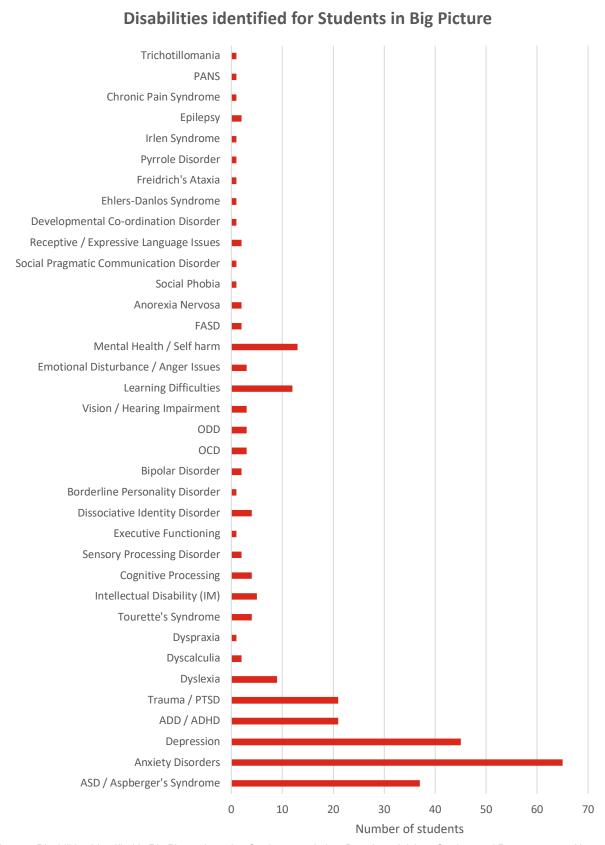


Figure 1. Disabilities identified in Big Picture Learning Student population. Data from Advisor, Student and Parent surveys. Note: some students have multiple diagnoses.

The Design directly addresses three main problems often associated with education for students with disability:

- Students with a disability often feel alienated from the student population.
 The Design ensures the effective education and inclusion of students with a disability in its small learning communities known as 'advisories'.
- Disengagement and 'drop-off' of students with a disability is well-documented, particularly in the later years of schooling. The Design has demonstrated improvements in engagement, wellbeing, and learning.
- Students with disability often experience difficulty with post-school transitions.
 The Design is uniquely placed to facilitate effective transitions for students from school to employment or further study through:
 - 'Learning Through Internship' enabling students to identify and develop their areas of interest through experience, practice and relationships while still at school,
 - II. The IBPLC providing a reliable and valid alternative to the HSC, warranted by The Assessment Research Centre of the University of Melbourne.

These strategies assist students, including those with a disability, to identify appropriate pathways and transition smoothly and successfully into meaningful employment or further study.

Evidence suggests that learning outcomes and general wellbeing of students with a disability is improved with the Design. Expectations are not lowered to disempower students with disability, but rather, students are supported in order to gain confidence to reach their full potential. Personalisation in the 'true' sense can contribute to improved retention and attainment rates (Council for the Australian Federation, 2007).

NSW Big Picture Learning Schools and Academies

At the time of this research being undertaken, there were 10 Big Picture Learning schools and academies in NSW – 9 in government schools and one private school.

School A:

School A is a BPL academy established in 2017. It is within a rural high school in Central West NSW with a total enrolment of 704 students, inclusive of 83 students in learning support (LS) classes². In 2021, the academy consists of two advisories from Year 8-12 with a total of 27 students.

School B:

School B is a stand-alone BPL campus established in 2014 in the Hunter region of NSW. The campus operates on a site separate to the high school which has an enrolment of 1151 students in 2021, inclusive of 71 students in the Special Education Unit. The campus consists of 8 advisories with a total of 142 students from Year 9-12.

School C:

School C is a BPL academy established in 2018, offering Big Picture Learning for the past 4 years within a senior college (Year 10-12). There are currently 170 enrolments in the school, inclusive of 28 students in the Special Education Unit, and it is located on the NSW coast south of Sydney. The Academy consists of an additional 121 students from Years 9-12 in 8 advisories (inclusive of 2 EALD advisories).

School D:

School D was established in 2011 in the Hunter region of NSW as an academy within a high school with an enrolment of 892 students, inclusive of 38 students in the Support Unit. Big Picture Learning consists of 4 advisories from Year 8-12 with a total of 73 students in 2021.

^{2.} Learning Support classes are identified by a range of names throughout the schools involved in this research – Special Education Unit, Support Unit, Diverse Learning Faculty. They all refer to dedicated learning spaces to meet the individual needs of students with learning or behavioural difficulties or disability.

School E:

School E is located south-west of Sydney near the Victorian border with a total enrolment of 761 students, including 63 students (8 classes) in the Diverse Learning Faculty. The BPL academy was established in 2019 and consists of 3 advisories for 51 students in total from Year 8-11.

School F:

School F is located in a small town in the Hunter region north of Sydney. The high school has a total of 872 enrolments in 2021. The BPL academy was established in 2018 and consists of 3 advisories from years 9-11 with a total of 38 students. There are also additional classes connected to Big Picture Learning in the Studio School (SS) (54 students) and Kuta Kaya Special Education Unit (51 students).

School G:

School G is in south-west Sydney with a total enrolment of 475 students. Big Picture Learning was established in 2017 and consists of 3 advisories from Year 8-12 with a total of 44 students. School G does not have a Special Education Unit (some EALD classes are held for students in mainstream).

School H:

School H is a high school located in the Hunter region north of Sydney with a total of 715 enrolments in 2021. 35 of these students are enrolled in the Support Unit (6 classes). The BPL academy was established in 2017 and now has 4 advisories with a total of 68 students from Year 7-12.

School I:

School I is on the NSW coast north of Sydney. In 2021, the school has a total enrolment of 1146 students, inclusive of 48 students in the Support Unit. The BPL academy was established in 2018 and has 2 advisories with 27 students from Years 9-12.

School J:

School J is a K-12 independent school on the NSW coast north of Sydney established in 2013 with a total enrolment of 640 students. Since starting with 2 advisories in 2019, all 11 classes from Year 9-12 are Big Picture Learning advisories with a total of 220 students in 2021.

Purpose of the study

This study examined how the Design fosters inclusion, improves engagement and facilitates effective transitions for students with disability in BPL schools and academies.

Research Questions

- How the Design fosters inclusion
 This evaluation will provide the NSW
 Department of Education with documented evidence of how the Design fosters inclusion and identifies effective features of the Design that enable students with disability to engage in deep, personalised learning. It will also examine corresponding learning outcomes.
- How the Design improves engagement Comparative analysis of data related to students with disability for attendance, negative incidents, and suspensions before and after attending a BPL campus will support improvements in engagement.
- How the Design facilitates effective transitions
 By analysis of student records and contacting
 program graduates (BPLA Destination Study
 2020), the evaluation will analyse transitions
 for students from their prior school, through a
 BPL school or academy and post high school,
 including participation in the IBPLC.

Key Terms

Disability:

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Disability is broad term incorporating impairments (problems in body function or structure), activity limitations (difficulties in executing everyday activities) and participation restrictions (problems experienced when involved in education, employment etc.). These can interact with a person's health condition(s) and environmental and/or individual factors (AIHW, 2019, p.1).

Engagement:

Student engagement indicates "the extent to which students identify with and value schooling outcomes, and participate in academic and non-academic school activities" (Willms, 2003 cited in CESE, 2020, p.34). As students become more engaged, learning outcomes, relationships with teachers and peers, attendance and participation improve (CESE, 2020).

Inclusive Education:

"All students can access and fully participate in learning, alongside their similar aged peers, supported by reasonable adjustments and teaching strategies tailored to meet their individual needs. Inclusion is embedded in all aspects of school life and is supported by culture, policies and everyday practices" (NSW Department of Education, 2020b).

Inclusion:

Inclusion involves "the development of schools that are responsive to the diversity of all learners rather than concentrating on a group of students categorised as having special needs or disabilities" (Ainscow, 1991 cited in Booth & Ainscow, 1998, p.2).

Mental Health:

"A state of wellbeing in which an individual realises their own capabilities, can cope [adaptively] with the normal stresses of life, can work productively and make a contribution to their community. Poor mental health can impact on the potential of young people to live fulfilling and productive lives"



(WHO, 2014) and can have a substantial effect on wellbeing. Mental health is influenced by social, economic and environmental factors (AIHW, 2020a, p. 85).

Transition:

Transition refers to processes contributing to the successful progression from school to post-school destinations, such as further study, training, or employment. When students complete higher levels of education, they are more likely to participate in the post-school opportunities available. The pathways available are enhanced for students who participate in out-learning experiences and internships that provide relevant knowledge, skills and experience.

Wellbeing:

Wellbeing is a state of health, happiness and contentment (AIHW, 2020a) and is essential for an individual to thrive. It comprises how a person feels and functions on a personal and a social level (Michaelson, Mahony, & Schifferes, 2012). Subjective wellbeing is composed of emotional and cognitive components (Antaramian, 2015). Carr (2013) and Heffron & Boniwell (2011) suggest "fulfilling one's potential is at the heart of wellbeing" (cited in Kardas, Cam, Eskisu, & Gelibolu, 2019, p. 83).

Review of Literature

Disability:

Both within Australia and internationally, definitions and models of 'disability' are contentious (Eide and Ingstad, 2011). Available health data for a number of target population groups, including those with disability, is limited and often out-dated. The proportion of young people in Australia aged 12-17 years old reporting a severe disability increased from 2.8% to 3.8% between 2009 and 2012 (AIHW, 2020a). In 2015, the highest proportion of children

23% need more support than they receive (AIHW, 2019). The most common difficulties experienced by students with disability at their school are "learning difficulties (68%), fitting in socially (56%), communication difficulties (44%), intellectual difficulties (22%), and difficulty sitting (15%)" (AIHW, 2020b, p250). The level of adjustment required in the educational setting is provided to students based on a student's disability. According to the NCCD, in 2018, 1.5% of students received extensive adjustments, 3% received substantial

Table 1Students by disability type as a percentage of the total number of students supported in funded programs in NSW schools (NSW Department of Education, 2020a).

Disability Type	% of students 2017	% Growth since 2013
Behaviour	2	-5.2
Sensory	2	-1.7
Physical	6	-0.3
Autism	33	+14.5
Mental Health	17	+5.4
Intellectual	40	-1.5

with some level of disability existed in inner regional areas and among low-income households (AIHW, 2020a, p.96). The prevalence of disabilities in NSW schools is shown in Table 1 (percentages only available).

There has been a shift away from students with disability attending mainstream schools in recent years, with growing numbers choosing to attend special schools. In 2009, 90.2% of students with disability attended mainstream school with the number falling to 86% in 2015 (AIHW, 2019). Of the 86% of students with disability in NSW public education schools, 66.9% attend regular classes in the mainstream school only (AIHW, 2019). Of these students, 9% do not receive any support and

adjustments, 8.2% received supplementary adjustments and 6.2% required support from quality differentiated teaching practice (AIHW, 2020a, p.210).

According to Angelo Gavrielatos, President of the NSW Teachers Federation, the number of students with disability has increased 500% since 2002 (Baker, 2020). In order to cope with a further 50% rise in students with disability predicted in the decade to 2027, more students need to be taught in mainstream classrooms. If this does not transpire, more support classrooms (from 2050 to 5400), more classrooms in Schools for Special Purpose (from 870 to 1400-1600), more special schools built (6/year) and more specialist

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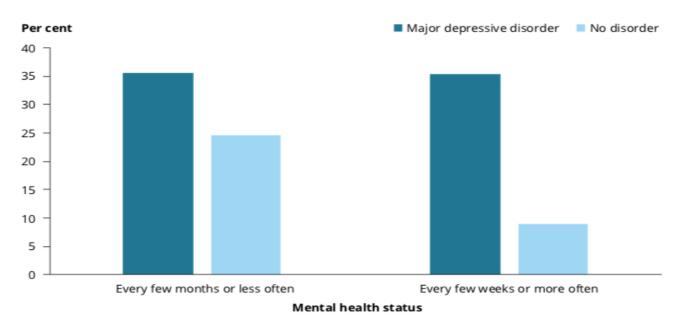


Figure 2. Proportion of children aged 11-15 bullied, by frequency of bullying and mental health status, 2013-14 (AIHW, 2020a, p.370).

teachers(double) would be required, although the Department is not in complete agreement with these findings (Boston Consulting Group cited in Baker, 2020). This may potentially bring about the directing of students into mainstream classes without providing the appropriate levels of support required for students with disability, such as equipment, tuition, and access arrangements.

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Adolescence is a period with numerous concomitant novel experiences. These cognitive, social, emotional, physical, moral and behavioural changes may manifest differently for students with disability compared to those without disability. Young people with disability report lower health ratings (71.8% v 90.3%), report low levels of school satisfaction, perceive teachers to be less supportive, miss school regularly, experience bullying (28.3% v 10.0%), feel less positive about their future (65.1% v 81.8%), and are less satisfied with their life (63.1% v 84.3%) compared to those without disability (Redmond, Skattebol, Saunders, Lietz, Zizzo, O'Grady, Tobin, Thomson, Maurici, Huynh, Moffat, Wong, Bradbury, & Roberts, 2016).

Bullying refers to the "ongoing and deliberate misuse of power in relationships through

repeated verbal, physical and/or social behaviour that intends to cause physical, social and/or psychological harm" (National Centre Against Bullying, 2021). Physical bullying is aggressive or violent behaviour towards a person or property. Verbal bullying may involve insults, ridicule or intimidation. Social bullying, which is more covert, may involve exclusion, humiliation or damaging someone's reputation by spreading rumours. The bullying may occur in person or online. It is estimated that approximately 15% of school students experience bullying each year in Australia, and these students are more likely to consequentially suffer anxiety and depression (Healy, 2021). The above figures show that students suffering a major depressive disorder (indicative of poor mental health) not only experience bullying more frequently, but the level of distress caused by the bullying is more extreme. Recent research suggests 21% of young people had experienced bullying in the past 12 months. Of those young people experiencing bullying, 80% reported the bullying occurring in their place of learning. Over 13% stated they had no strategies or support in place to help deal with the bullying incidents (Carlisle, Fildes, Hall, Perrens, Perdriau, & Plummer, 2019). Students with disability are

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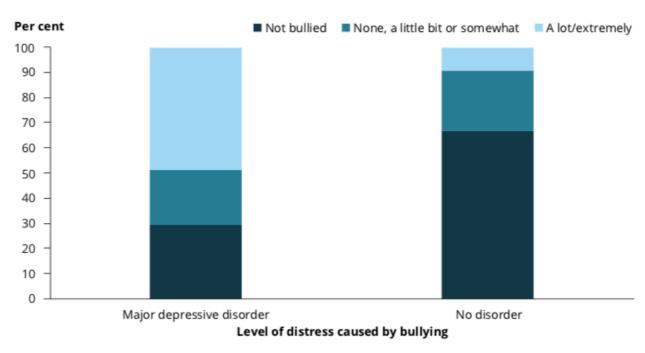


Figure 3. Proportion of children aged 11-15, by mental health status, by level of distress caused by bullying, 2013-14 (AIHW, 2020a, p.372).

more vulnerable and research suggests that in 2017, more than half of students with diverse needs experienced bullying (Gotlib, 2018). Bullying threatens a student's experience of emotional safety at school and adversely affects mental health and academic achievement (CESE, 2020).

Social issues associated with marginalised groups, such as those with disability, result in barriers to effective participation in society. Participation rates are considered important indictors of wellbeing (Edwards & Higgins, 2009). Deprivation of food and clothing is greater for students with disability compared to those without disability (17% v 8%) and this impacts their lives, including education and mental health (such as depression and anxiety), as a result of shame, exclusion and marginalisation (Redmond et. al., 2016, p.xviii). Furthermore, students with disability are more likely to go hungry to bed or to school (7.2% v 1.5%) (Redmond et. al., 2016, p. 96) and report a higher incidence of smoking (5% v 1.4%) and getting drunk (11.2% v 3.1%) compared to students without disability respectively (Redmond et. al., 2016, p.101). Students with disability have the

lowest overall wellbeing scores of any marginalised group compared to those without disability (69.6% v 85.6%) (Redmond et. al., 2016, p.214).

Mental Health:

Research reveals that the top three issues of personal concern for young people aged between 15 and 19 are coping with stress (44.7%), school or study problems (34.3%) and mental health (33.2%) (Carlisle et al., 2019). The National Health Survey (2017-2018) estimates that 15-24 year olds had the highest proportion of mental or behavioural conditions of any age groups (26%) (AIHW, 2020b).

Overall, participants with a severe disability were more likely to suffer a mental or behavioural condition compared to those without disability (58% v 14%). In the 12 months prior to the 2013-2014 Australian Child and Adolescent Survey of Mental Health and Wellbeing, 14% (245,000) of children and adolescents (12-17 years old) reported experiencing a mental disorder, with one third of these experiencing 2 or more mental disorders during the same time period. The most prevalent were anxiety disorders (7.0%),

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Mental Health Disorders for 16-24 year olds by Gender

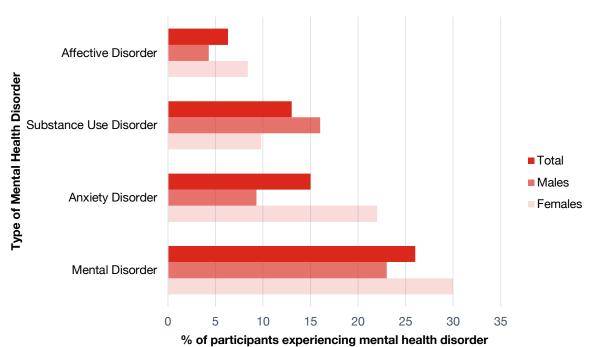


Figure 4. Mental Health Disorders for 16-24 year olds by gender according to 2007 ABS National Survey of Mental Health and Wellbeing (data adapted from AIHW, 2015).

attention deficit hyperactivity disorder (6.3%), major depressive disorder (5.0%), and conduct disorder (2.1%). The impact of the disorder was further classified as mild (44%), moderate (33%), or severe (23%) (AIHW, 2015). Current research suggests a deterioration of mental health as a result of recent events associated with the global pandemic, creating stress, anxiety and frustration (van Agteren, Bartholomaeus, Fassnacht, Iasiello, Ali, Lo, & Kyrios, 2020). The number of people with "problematic scores for at least one mental health outcome" increased from 58% prior to the pandemic to 79% during the pandemic, with therefore only 21% of people demonstrating good mental health. COVID-19 has been reported to have created a "shadow pandemic". For people aged under 18 in NSW, there has been a 31% rise in the number rushed to hospital for selfharm and suicidal ideation and a 26% rise in the number of emergency department mental health presentations (including psychotic episodes),

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compared to 2020 (Fitzsimmons & Massola, 2021). This is of particular concern given the impact of mental health on educational achievement. Of all children aged 4-11 with a mental disorder, children with a major depressive order on average missed 18 days of school in the previous 12 months due to their symptoms; children with anxiety disorders were absent for 15 days; children with conduct disorder were absent for 12 days and children with ADHD, 10.5 days (Goodsell, Lawrence, Ainley, Sawyer, Zubrick & Maratos, 2017). Furthermore, poor mental health has been shown to be associated with risky substance use, violence, isolation and discrimination, as well as initiation of self-harm, suicidal thoughts and suicide (Bhatia & Bhatia, 2007; Corrigan, 2005; Patel, Flischer, Hetrick & McGorry, 2007).

Of further concern, students without a diagnosed disability are reported to develop mental health problems as a result of the education system in

which they are trapped. PISA findings show that "in a majority of school systems, students who expressed a greater fear of failure scored higher in reading and reported less satisfaction with life than students expressing less concern about failing" (OECD, 2019, p.188). Fear of failure is associated with "increased standardisation and centralisation of curriculum, pedagogy and assessment... and increased emphasis on test scores as indication of success of students" (Zhao, 2020). This fear of failure driving high ranking performance "threatens the social and emotional wellbeing of students" as a result of its association with "stress, anxiety, burnout and depression" (OECD, 2019, p. 188).

According to the 2017 youth mental health report, in 2016, 22.8% of young people between the ages of 15-19 years met criteria for serious mental illness, a significant increase from 18.7% in 2012. The prevalence of anxiety disorders for young people between the ages of 4-17 years was 16.8% for those from "poor" functioning families, compared to 5.7% from "very good" functioning families (Lawrence, D., Johnson, S., Hafekost, J, Boterhoven De Haan, K., Sawyer, M., Ainley J., & Zubrick, S.R., 2015). Involvement of families in the education of their children may be considered an important strategy to improve family functioning. Strong relationships, as well as healthy sleep patterns and a nutritious diet have been shown to be important protective factors for mental health.

Wellbeing:

It is becoming increasingly apparent that consideration of student wellbeing is essential if students are to engage fully, learn effectively and reach their full potential. Students with disability are "particularly vulnerable" to experiences adversely affecting wellbeing at school (CESE, 2020, p.33). A safe, engaging environment that promotes connectedness and the development of social and emotional skill is essential for these students.

It appears BPL pedagogical practices have a two-fold positive effect on the wellbeing of

students currently engaged in Australian education. Firstly, many students are not suited to the current education system. This has been a major contributing factor to student disengagement and poor achievement and ultimately creates issues associated with mental health. Many of these students are attracted to the philosophy of BPLA. Furthermore, student attendance and participation at school improves once engaged in BPL, achieving outcomes perceived as unattainable in the mainstream school system. Previous research conducted by BPLA state support for students' wellbeing as being an integral part of the Design. Findings suggest BPL fosters positive teacherstudent relationships, provides a safe environment for success and growth, enables students to effectively set and reach goals and treats students as valued individuals who "feel supported and advocated for" (CESE, 2020, p.33).

A recent study of more than 4500 university students revealed that "almost one-third reported 'severe' or 'extremely severe' levels of depressive symptoms, anxiety or (chronic) stress (as measured by the DASS-21). These symptom levels would impede students' daily functioning (sleep, memory, cognitive processing), social interactions and learning" (Larcombe, 2021, p.2). The student experiences shown to positively impact wellbeing were associated with a sense of belonging, positive engagement with other students, finding content interesting or valuable, and supportive teachers. Those factors having a negative impact on wellbeing were assessment pressures and unreasonable workloads. (Larcombe, 2021). Additional findings revealed that for students with disability, mean DASS scores were "at least 2 points higher" than for students without disability (Larcombe, Baik, & Finch, 2021, p.11).

Adolescents are most successful when they have confidence in their ability, are intrinsically motivated, are confident about their abilities and attribute success to effort. The Design provides a valuable opportunity for students not being served well by mainstream education. An adolescent's

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relationships with peers and their experience of school are consistently aligned with positive wellbeing. Furthermore, research has identified a number of mental health indicators and predictors of wellbeing, including exercise frequency, personality traits and emotional intelligence (Kroencke, Harari, Katana, & Gosling, 2019), positive emotions (gratitude, hope, optimism and life satisfaction) (Kardas et al., 2019), parenting style (Khodabakhsh, Kiani, & Ahmedbookani, 2014), self-efficacy, self-compassion and gender, substance use (Soysa, & Wilcomb, 2013), spirituality (Kim & Esquivel, 2010), family deprivation and perceived affluence (Black & Martin, 2015), excessive computer gaming, and diet and health (Chenfreau, Lloyd, Byron, Roberts, Craig, DeFeo, & McManus, 2008). Research consistently indicates that having supportive relationships is one of the strongest predictors of positive wellbeing (Holt-Lunstad, Smith, & Layton, 2010).

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Wellbeing is more than simply the absence of ill-health. It involves an individual functioning in a positive manner and has been shown to be connected to academic motivation (Antamarian, 2015), to academic achievement (Murray-Harvery, 2010) and further, to "school completion, better mental health and a more pro-social and responsible lifestyle" (CESE, 2020, p.33). Social relationships and feelings of security, at home and at school, are key to positive wellbeing. Investment in both bonding social capital (connections with those similar to self) and bridging social capital (connections with those different to self) is important in promoting wellbeing (Chenfreau et al, 2008, p. 14). Addressing variables shown to significantly promote wellbeing therefore directly contribute to student wellbeing, and indirectly improves academic achievement. It is important to note that those with disability are identified as "at risk" in terms of wellbeing, with greater chances of experiencing bullying, participating in risky behaviours, and early exit from school.

Engagement:

Research shows that regular attendance at school is a significant contributor to successful student outcomes and academic performance (Goodsell et al., 2017). For students at risk, such as those with disability, the educational gap widens as a result of non-attendance in school. Academic and social consequences such as "daily absence, disruptive behaviour, and poor school connectedness" are consequences of continued disengagement for students (Drane, Vernon, & O'Shea, 2020, p.4). Students with disability are more likely to be subjected to exclusion, suspension and negative relationships that impact their ability to successfully engage in both learning and social experiences at school (Attorney-General's Department, 2019).

However, student engagement is more than just school attendance. It has three dimensions comprising behavioural, emotional and cognitive engagement. This identifies participation in learning and a connection with the learning content and environment, a positive attitude towards school, and a sense of belonging (AIHW, 2020a, p.180). Australian students have experienced a decline in belongingness and engagement, with 15% of students feeling like an outsider and 10% feeling lonely at school (Waters & Loton, 2017). School engagement ratings for students with disability were 66.7% compared to 81.7% for students without disability (Redmond et. al., 2016, p.214). Goal setting has been associated with higher levels of school attendance and school completion. This is attributed to improved engagement of students and is particularly relevant for students who are academically disadvantaged. In competitive learning environments, students compare themselves to others and doubt their own ability to achieve to a particular standard. Personal goal setting organised around personal improvement renders academic success more accessible (Martin, Burns, Collie, Bostwick, Flesken, & McCarthy, 2021). However, the current and continued "obsession with assessing the basics and comparing results between students, schools

and education systems" indicates a move away from conventional practice is unlikely (Burgess, 2021).

Engagement in learning is also impacted by family involvement. Higher proportions of students with disability compared to students from nonmarginalised groups reported that their parents 'never or almost never' asked them about homework (12.9% v 6.5%) (Redmond et. al., 2016, p.133), asked them about schoolwork (11.9% v 7.0%) (Redmond et. al., 2016, p.134) or talked with teachers (26.7% v 16.3%) (Redmond et. al., 2016, p.xv). A lack of family cohesion has been identified for students with disability. For example, 59% of children with disability report spending time having fun with their families, compared to 73% of children without disability (AIHW, 2020a, p. 234). As a result, scores for family as an indicator of wellbeing are significantly lower for students with disability compared to students from nonmarginalised groups (68.9% v 83.0%) (Redmond et. al., 2016, p. 214).

Research suggests educational settings that place the student at the centre of their learning promote student engagement, improve student outcomes and enhance student-teacher relationships. The learner-centred relationship is strongly related to students' participation, student satisfaction, drop-out prevention, selfefficacy and mental health, positive motivation and social skills, and moderately associated with reducing disruptive behaviour and attendance (Cornelius-White, 2007, p.128). Students who leave school early do not believe "the things I learned were important to me" or "I enjoyed what I did in class" (McMillan, Sniedze-Gregory, Felgate, & Lietz, 2020, p. 13). Providing students with "authentic and meaningful experiences" that relate to the real world, are relevant to their interests and connect with "students' culture, identity and voice" alleviating frustration and boredom that act as barriers to student engagement (Levesque, 2018, p. 3258-3259). Students are more likely to maintain curiosity and motivation

when learning is specific to their passions and needs with backward mapping to the curriculum, rather than the traditional approach of curriculum driving content. Poor mental health is both a cause and a consequence of disengagement in learning – "improving wellbeing can facilitate intellectual engagement, and improving intellectual engagement can also promote wellbeing" (CESE, 2020, p. 36).

Inclusion:

Inclusive education ensures all students can access and participate in learning. The Principles of Inclusive Practice, identified in the NSW Department of Education Inclusive Education Statement for students with disability (2020) are as follows:

- Student agency and self-determination student voice is valued and developed to solve problems, set goals, make decisions, and self-advocate; students provided with support to achieve best learning and wellbeing outcomes, with most appropriate learning program that suits their needs; student feedback drives continuous improvement, individualised learning goals, and support to navigate transitions.
- Parent and carer inclusion engaged as partners; collaborative approaches to plan and achieve goals, and transition preparation; access support.
- Social and cultural inclusion build relationships with peers; respect and value diversity; model inclusion; develop social and emotional skills; welcoming and accessible community.
- 4. Curriculum inclusion student centred; curriculum appropriately adjusted with differentiated teaching, learning and assessment; evidence-based practice; personalised support services; flexible use of resources to meet needs; progress monitored against individual learning goals.

- 5. Workforce capability for inclusion evidencebased resources; professional learning, mentoring and supervision; teacher support.
- 6. System inclusion leaders support, model and promote inclusive practice; build evidence base and incorporate best practice to drive improvement and promote inclusion.

Research findings have concluded that experiences at school for students with disability are defined by: "safety and bullying issues rather than positive social interaction"; "struggling to establish and maintain friendships"; "[being hurt by] being recognised as different.... at school" and "'home time' [being] the best part of the day" (Redmond et. al., 2016, p.111-125). Scores for relationships as an indicator of wellbeing are significantly lower for students with disability compared to students without disability (77.1% v 88.5%) (Redmond et. al., 2016, p. 214). Mental illness can often add to the challenges faced by students with disability. Furthermore, any social impairments may interfere with accessing support which provides a "sense of security and confidence", and is crucial for student engagement and wellbeing (Campbell & Gilmore, 2014, p.27).

Central to the concept of inclusion is the sense of school belonging. This has been shown to impact engagement, motivation and achievement and is of particular importance for students "for whom mainstream identities and norms are not appropriate", such as those with disability (Levesque, 2018, p.3254). A student that feels they belong is provided with a "sense of being accepted, valued, included, and encouraged by others (teachers and peers) in the academic classroom setting and of feeling oneself to be an important part of the life and activity of the class... [and] involves support and respect for personal autonomy and for the student as an individual" (Goodenow, 1993, p.25). The perception of competition is not associated with students' sense of belonging at school (OECD, 2019, p.130). Being a member of a group, and the associated positive sense of belonging that this brings, is associated



with students' interest and enjoyment of school and improved effort, and reduces the likelihood of students 'dropping out' (Levesque, 2018). Students who feel like they don't belong or don't feel safe in school are more likely to leave school early (McMillan et al., 2020).

Transition:

Students' learning trajectories vary greatly for some disadvantaged groups, such as those with disability. For students with disability, the rate and magnitude of change in skill or knowledge acquisition achieved may be small (Keen & Arthur-Kelly, 2009). In recent years there has been an increase in the proportion of students completing Year 12, and of those undertaking post-school qualifications (AIHW, 2015). However, students continue to leave school early due to both push factors (school was not for me, school was not a good environment, I was not learning, I did not like school or teachers, I was not interested in going, ill-health) and pull factors (work or career reasons) (Department of Education and Training,

2020). Research shows educational attainment for people with disability is lower than for those without disability: 19% leave school before age 15 (compared to 11%) and 32% have completed Year 12 (compared with 62%) (AIHW, 2020a). High levels of educational attainment continue to be lower for those with disability compared to those without disability. In 2018, compared to students who complete Year 12, students who leave school early are less likely to be in some form of education or training (69.2% v 57.1% respectively), more likely to be not in the labour force, education or training (NILFET) (2.5% v 5.2% respectively) and more likely to be looking for work (5.2% v 12.9%) (The Social Research Centre, 2019). Early school leavers and those with disability are more likely to be repeatedly disengaged in education, employment or training over time (Ranasinghe, Chew, Knight, & Siekmann, 2019). Although specific data for students with disability is not available, of the early school leavers who were NILFET, 20.1% were unable to work due to illness. This represents an increase of

over 11% since 2014 (The Social Research Centre, 2019). Overall, 35% of young people needing assistance with core activities (such as self-care, body movements or communication) were not in education, employment, or training compared to 9.6% of those not requiring assistance (AIHW, 2015). It is therefore necessary to provide effective pathways from school to employment or training opportunities, as well as to prepare students well with appropriate skills to participate in further education or employment after leaving school. This will assist young people to become independent and contributing members of society, provide a sense of purpose and reduce the likelihood of mental health problems associated with long-term disengagement.

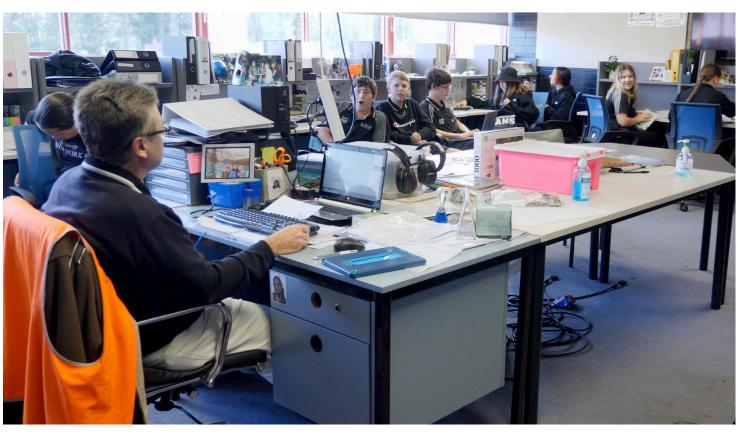
The main reasons for leaving school early include "not liking school or not thinking school was useful; and mental health and other health/illness/ disability reasons" (McMillan et al. 2020, p.14). Cycles of suspension and non-attendance also lead to exclusion or "dropping out" of school (Bills, Armstrong, & Howard, 2019). Students stated greater flexibility, better mentoring opportunities and more personalised learning support as design aspects that may have helped them remain in school and help them achieve their future goals. They considered "post-school life skills, social and collaborative skills, intrapersonal skills, and information and training specific to work or higher education" as key components of school settings (McMillan et al., 2020, p. 141).

Research suggests the transition from school to post-school employment or further learning for students with disability is challenging due to lack of support, fewer opportunities and prejudice. Lack of career plans and career opportunities contributes to low aspirations for disengaged learners (Davies, Lamb & Doecke, 2011). These students are less likely to acquire full-time employment (Winn & Hay, 2009). Research findings from parents of young adults with disability reveal the lack of post-school options for students with a disability and the negative impact of this on the whole family (Davies

& Beamish, 2009). Strategies to facilitate transitions need to be both comprehensive and integrated into each student's educational experience, providing skill instruction and development, self-awareness, individualised informational, emotional and instrumental supports, direct opportunities and experiences for skill development, and exposure to suitable community activities and settings (King, Baldwin, Currie & Evans, 2006; Stewart, Stavness, King, Antle & Law, 2006). Employment and income opportunities are dependent on higher levels of education, critical for future economic security and independence. It is therefore necessary to close the gap associated with post-school qualification between those with disability and those without disability (10% v 15%) (AIHW, 2019, p.16)

"Even though the importance of young people's own perspectives on disability is recognised (Foley et al., 2012), relatively few attempts have been made to understand the wellbeing of young people with disability from their own perspective (Llewellyn and Leonard, 2010)" (Redmond et. al., 2016, p. 204). Big Picture Learning has consistently relied on input from students to inform practice. Research shows "how capable students are of providing rich, nuanced accounts of their experience that could potentially inform school improvement. While varying somewhat across the age range involved, students identified creative ways that pedagogy, the school environment and relationships could be improved, changed or maintained to assist their wellbeing" (Simmons, Graham & Thomas, 2015, p.129).

Big Picture Learning Australia How Well Are We Going?



Methodology

School data has been collected from 2020 (whole year – 195 days) and 2021 (up to end of May – 64 days). It is important to be mindful of the impact of COVID-19 on data (especially attendance) for 2020 and 2021. Significant adjustments occurred in how school was undertaken as a result of the restrictions related to the pandemic. The BPLA research paper on the impact of COVID-19, "Unlocked Potential during Lockdown", showed BPL students adjusted very well to online delivery with 90% of students progressing with their personal working plan from home.

Data collection:

Stage 1: Exploratory paper.

Stage 2: Pilot surveys, Exit Survey, Destination Study.

Stage 3: School Data Collection: attendance, suspensions, negative incidents, retention rates, and NCCD details.

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Stage 4: Surveys: Principal, Advisor, Student, Parent. Surveys were sent out as a google doc via email. Copies of surveys are available on request.

Data for students with disability enrolled in BPL was evaluated by comparison with data for those same students prior to enrolment in BPL, with students without disability enrolled in BPL, and with students in mainstream (Stage 3 and Stage 4).

Stage 5: School visits – Case studies (Interview, Big Picture Living, Wellbeing study – DASS-21) and videos.

Part 1: Interview

The inerview provided more detailed data for 24

students (at least two from each school) with a diagnosed disability. Students were able to share their stories and their Big Picture Learning experiences.

Part 2: Big Picture Living

Big Picture Living is an initiative created by Big Picture Learning (USA) consisting of a website, apps and social media components. It has been designed to create a culture of health and wellbeing for students based on a research-based framework for healthy living, developed in association with the American College of Lifestyle Medicine. The six measures identified are:

- Increasing physical activity and exercise (move),
- 2. Transitioning to a healthy diet (nourish),
- 3. Maintaining healthy relationships (social),
- 4. Managing stress (chill),
- 5. Avoiding risky substances and behaviours (caution),
- 6. Getting enough sleep (recharge).

Although the initiative has not been directly implemented in advisories in NSW, this research provided the opportunity to gain some insight into these health and wellbeing components for BPL students with disability.

A series of questions concerning 'Big Picture Living' measures was the second part of the case study. A subjective measure of student behaviours was gained by asking students to rate a series of questions on a 5-point Likert scale, with higher scores an indication of more favourable behaviours and judgements.

Part 3: Wellbeing Study

DASS-21 is a 21-item version of the original Depression Anxiety and Stress Scale developed by Lovibond & Lovibond (1995) which rates specific experiences on a 4-point Likert scale ranging from 0 (Did not apply to me at all over the past week - NEVER) to 3 (Applied to me very much, or most of the time, over the past week - ALMOST ALWAYS). The response form is freely available and downloadable from the authors (Lovibond, 2014). The scale has been shown to provide a reliable and valid score (the sum of all items) as a single construct of generalised psychological distress in adolescents (Shaw, Campbell, Runions, & Zubrick, 2017), with higher scores (above normal range) indicative of higher levels of psychological distress. The scale was developed in Australia and is a well-established culturally appropriate "instrument for measuring depression, anxiety and stress in the Western world" (Oei, Sawang, Goh, & Mukhtar, 2014). It is important to note the DASS-21 is not a diagnostic tool. The "items and dimensions correspond to the highest prevalence mental health disorders" that students are more likely to experience (Trpcveska, 2017, p.62).

Ethics considerations:

Big Picture Learning Australia service agreements permit BPLA to conduct research in schools for the purpose of evaluation of the Design. Participation in any survey, interview or video was voluntary and additional permission has been granted for student participation in videos. All data collected has been deidentified so all contributors will remain anonymous. Although SERAP procedures have been followed, this is not required for the internal evaluation conducted for this research.



Results

The data presented here provides a timely, comprehensive, authentic and accurate representation of students with disability in BPL schools and academies. One can look at data for a community of learners, however, like the Design, the power lies in considering one student at a time. It is the growth of each individual student that is of importance. Although standard normative measures may still be lower than average in some cases, it is the change in, and progress of, students after joining BPL which provides insight into the impact of the Design for students. Specific examples of this will be detailed throughout the Results. In addition, data for each school is contextual so will be considered individually, with some general conclusions drawn.

School Data:

Quantitative data for 299 students with disability³ in BPL was compared with data for 323 students without disability in BPL, and with data for 6886 students in mainstream school. Data for enrolments, attendance, suspensions, negative incidents and retention rates⁴ are provided for each BPL school and academy in the following tables. Some gaps in data appear in the tables below where individual schools may not have been able to provide specific data or data provided was de-identified and could not be categorised further. Due to the context for School J varying from other BPL schools and academies, their data has been analysed and examined separately (see Appendix C).

^{3.} Students 'with disability' in school data refers to students included in the NCCD requiring adjustments of any level for physical, cognitive, sensory and social/emotional needs identified by the school.

^{4.} Retention rates for 2020 compare data for enrolments for Year 11 in Term 4, 2019 with enrolments for Year 12 in Term 3, 2020. Retention rates for 2021 compare data for enrolments for Year 11 in Term 1, 2020 with enrolments for Year 12 in Term 1, 2021.

Table 2 Quantitative data for School A

2020	Mainstream	Mainstream With Disability BPL				
Enrolment	664 (+82 LS)	187/746 (25.1%)	24	5/24 (21%)		
Attendance %	79*		95.4			
Suspensions	421		0			
Negative Incidents	6380		15			
Retention Rates	143 ▶ 110 (76.9%)		3 ▶ 1**			
NCCD	249		5			
2021	Mainstream	With Disability	BPL	With Disability		
Enrolment	621 (+83 LS)	81/704 (11.5%)	27	4/27 (14.8%)		
	i e					
Attendance %	75.75		92.9			
Attendance % Suspensions	75.75 178		92.9			
Suspensions	178		0	N /A		

^{*} Positive skew for 100% attendance online during COVID-19 ** 2 students returned to mainstream

Table 3 Quantitative data for School B

2020	Mainstream	With Disability	BPL	With Disability
Enrolment	1132		155	
Attendance %	81.9		73.2*	
Suspensions	279		12	
Negative Incidents	7283		231	
Retention Rates	122 ▶ 75 (61.5%)		27 > 15 (55.5%)	
NCCD				
2021	Mainstream	With Disability	BPL	With Disability
Enrolment	1080 (+71 LS)	189/1151 (16.4%)	142	47/142 (33.1%)
Attendance %	83.9		72.5	
Suspensions	191		5	
Negative Incidents	2618		81	
Retention Rates	172 ► 115 (66.9%)		41 > 23 (56.1%)	
NCCD	189		47	

^{* 52%} of BPL students have attendance above 85% compared to 73% of high school total enrolment.

Table 4

Quantitative data for School C

2020	Mainstream	With Disability	BPL	With Disability
Enrolment	170		121	
Attendance %				
Suspensions	9		2	
Negative Incidents				
Retention Rates	50 ▶ 34 (68%)		26 > 20 (76.9%)	
NCCD				
2021	Mainstream	With Disability	BPL	With Disability
Enrolment	142 (+28 LS)	51/170 (30%)	121	15/121 (12.4%)
Attendance %	77	65.4	80.7	80
Suspensions	5		0	
Negative Incidents	1798		408*	
Negative incluents				
Retention Rates	56 ▶ 42 (75%)		32 ▶ 35 (109.4%)	5/5 (100%)

^{*} High number of incidents recorded for BPL as this is inclusive of positive reports, wellbeing, students plans and parent communication common in BPL.

School B emphasised the need to maintain policy and procedures while creating opportunities for students in BPL. Meeting these obligations without impacting the integrity of the Design requires flexible leadership. Importance is placed on advisor wellbeing, so that they are well equipped to model positive behaviours for students. For example, advisors are encouraged to demonstrate organisational skills for students, particularly those with disability, suffering trauma or recovering from negative experiences in mainstream in order to overcome students' overt and cognitive disorganisation.

In School C, BPL has undergone significant growth in three years. In 2018, there were 2 advisories, and 8 advisories in 2021. BPL now comprises almost half of the total enrolment, becoming the 'default' choice for new enrolments. Importantly, BPL accounts for well over half of the daily attendance of students. Students demonstrate improved engagement in learning aligned with their interests.

Further understanding of the Design by teachers in mainstream would provide some validation for advisors – the time and effort involved being currently underestimated.

School C emphasised the higher level of community involvement compared to mainstream and the positive profile of BPL in the community (including the regional university college supporting transitions of graduating students).

Table 5 Quantitative data for School D

2020	Mainstream	With Disability BPL With Disabi					
Enrolment	855	200/855 (23.4%)	78	6/78 (7.7%)			
Attendance %	83.4	75.6	85.5	86.2			
Suspensions	79	42/79 (53%)	1	0			
Negative Incidents	3374		44	5/44 (11.4%)			
Retention Rates	83 > 71 (85.5%)	22	10 > 10 (100%)	3 ▶ 3			
NCCD	186		6				
2021	Mainstream	With Disability	BPL	With Disability			
2021 Enrolment	Mainstream 854 (+38 LS)	With Disability 169/892 (18.9%)	BPL 73	With Disability 8/73 (11%)			
Enrolment	854 (+38 LS)	169/892 (18.9%)	73	8/73 (11%)			
Enrolment Attendance %	854 (+38 LS) 84.4	169/892 (18.9%) 77.3	73 84.2	8/73 (11%)			
Enrolment Attendance % Suspensions	854 (+38 LS) 84.4 34	169/892 (18.9%) 77.3 11/34	73 84.2 0	8/73 (11%) 85			

Table 6Quantitative data for School E

2020	Mainstream	With Disability	BPL	With Disability
Enrolment	737		45	
Attendance %				
Suspensions	213		1	
Negative Incidents	125		0	
Retention Rates	66% (Y10 ► Y12)		N/A	
NCCD				
2021	Mainstream	With Disability	BPL	With Disability
	1 Tallioti Gaili	TTTELL DISCIDING	B. E	VVICII Disability
Enrolment	698 (+63 LS)	344/761 (45.2%)	51	39/51 (76.5%)
Enrolment Attendance %				<u> </u>
				<u> </u>
Attendance %	698 (+63 LS)		51	<u> </u>
Attendance % Suspensions	698 (+63 LS)		51	<u> </u>

Table 7Quantitative data for School F

2020	Mainstream	With Disability	BPL	With Disability
Enrolment	996 (incl. BPL)	158 (incl. BPL)		
Attendance %	79.7			
Suspensions	254 (incl. BPL)			
Negative Incidents	9008 (incl. BPL)			
Retention Rates	99 ► 66 (66.7%)			
NCCD	158			
2021		Maril Bi Lilli	551	140.1 Bt 1 11.
2021	Mainstream	With Disability	BPL	With Disability
Enrolment	767 (+51 LS, 54 SS)	170/872 (19.5%)	38	9/38 (23.7%)
Enrolment	767 (+51 LS, 54 SS)		38	9/38 (23.7%)
Enrolment Attendance %	767 (+51 LS, 54 SS) 81.4		38 76	9/38 (23.7%) 57.2
Enrolment Attendance % Suspensions	767 (+51 LS, 54 SS) 81.4		38 76	9/38 (23.7%) 57.2

Table 8Quantitative data for School G

2020	Mainstream	With Disability	BPL	With Disability
Enrolment	575			
Attendance %	82.4			
Suspensions				
Negative Incidents				
Retention Rates	78 ► 77 (98.7%)			
NCCD	15		1	
2021	Mainstream	With Disability	BPL	With Disability
Enrolment	475	16/475 (3.4%)	44	1/44 (2.3%)
Attendance %	83.5			
Suspensions	22	1/22 (4.5%)	0	
Negative Incidents	1783	92	83	7
Retention Rates	88 > 86 (97.7%)			
NCCD	16		1	

Table 9Quantitative data for School H

2020	Mainstream	With Disability	BPL	With Disability
Enrolment	798	158/798 (19.8%)		
Attendance %	67			
Suspensions	484	95/484 (19.6%)		
Negative Incidents	10189			
Retention Rates	91 > 70 (76.9%)			
NCCD	158		6	
2021	Mainstream	With Disability	BPL	With Disability
Enrolment	680 (+35 LS)	33/715 (4.6%)	68	7/68 (10.3%)
Attendance %	78.5	73.6	89.3	90.3
Suspensions	226	25/226 (11.1%)	9	1/9 (11.1%)
Negative Incidents	8325	773/8325* (9.3%)	77	25/77 (32.5%)
Retention Rates	129 > 83 (64.3%)		7 ▶ 7 (100%)_	N/A

^{*} All students in mainstream with a disability report at least one negative incident

Table 10 Quantitative data for School I

2020	Mainstream	With Disability	BPL	With Disability
Enrolment	902	138/902 (15.3%)	16	10/16 (62.5%)
Attendance %	71.6	68.4	35.8	55.6
Suspensions	149	69/149 (46.3%)	0	
Negative Incidents	8888		0	0
Retention Rates	159 ▶ 145 (91.2%)		3 ▶ 3 (100%)	N/A
NCCD	138		10	
2024		140:1 Bt 1 11:		140.1 B1 1.00.
2021	Mainstream	With Disability	BPL	With Disability
Enrolment	Mainstream 1098 (+48 LS)	154/1146 (13.4%)	27	11/27 (40.7%)
		<u> </u>		
Enrolment	1098 (+48 LS)	154/1146 (13.4%)	27	11/27 (40.7%)
Enrolment Attendance %	1098 (+48 LS) 81.1	154/1146 (13.4%) 74.2	27 60.1	11/27 (40.7%)
Enrolment Attendance % Suspensions	1098 (+48 LS) 81.1 68	154/1146 (13.4%) 74.2	27 60.1 0	11/27 (40.7%) 58.9

General comments from quantitative data:

The proportion of students with disability in BPL (some of whom are twice exceptional) is greater than the proportion of students with disability in mainstream. This includes comparison with whole school data that incorporates student numbers from Special Education and Support units. The difference becomes more significant when the students without diagnosed disabilities are included in the data. The mean percentage of students with a disability in BPL is 22.5% (increasing to 49.7% when including numbers of unfunded / undiagnosed students) compared to mainstream 18.1%. Data for individual schools is shown in the graph below.

Attendance

On average, attendance rates in BPL are similar to mainstream (80.7% compared to 80.4% respectively). In circumstances where attendance in BPL is less than in mainstream at a particular school, this may reflect a flexible arrangement to meet the needs of the students and/or still indicate a significant increase in attendance compared to when the student was enrolled in mainstream (very low baseline).

- Student #1: Consistently attends 3 days/week as this is what they are able to physically and mentally manage (School C).
- Student #2: Attendance was previously 20%, including 6 suspensions for drugs and violent

% of Students with Diagnosed and Undiagnosed Disabilities in Big Picture Learning compared to Mainstream

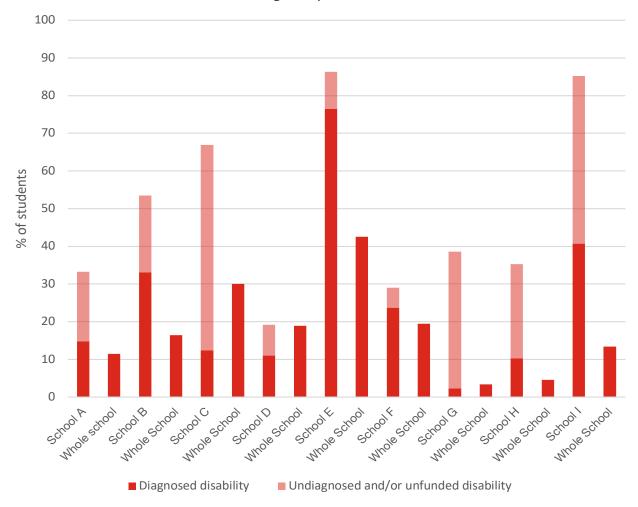


Figure 5. Students with disability - Big Picture Learning compared to mainstream.

- behaviour. The student has missed 3 days in 3 years at BPL and those were for mandatory isolation following a COVID-19 test (School I).
- Student #3: Official attendance is 17% but the student works from home and communicates with the advisor regularly and submits evidence of work completed (School C).
- Student #4: School refusal was a major problem in mainstream - ½ day/week and finally 1 period/week. Attendance at BPL now 94% (School H).
- Student #5: Attendance Year 8 Term 1 (mainstream) 35.4% compared to Year 8 Term 2 (BPL) 63.6% (School B).
- Student #6: 2018 Year 7 attendance 73.6% (mainstream); 2019 Year 8 attendance 47.7% (mainstream); 2020 Year 9 attendance 94.4% (BPL) (School B).
- Student #7: Absent for 200 days in 2020 Year 8 in mainstream; 2021 Year 9 attendance 100% (School I).

Continued non-attendance is often associated with parents enabling a student's absence, sleeping patterns of adolescents or students discovering they worked well from home during COVID-19 lockdown and so continuing to check-in and work productively from home.

Negative Incidents / Suspensions

Advisors reported the number of negative incidents and suspension of students is significantly reduced, if not eliminated, when they join BPL. As a result of students being engaged in their learning and not struggling to focus on learning they consider irrelevant, students are less likely to react inappropriately or resort to poor behaviour choices. Furthermore, because advisors have a close relationship and a deep understanding of the needs of each of their students, they can recognise student triggers, offer support with strategies to deal with the situation and encourage students to improve self-regulation of behaviours. There is

no reliance on exclusion as a means of managing student behaviour. Together, advisors are able to therefore manage the situation with the student before it escalates, and results in suspension.

- Student #1: "In 2020, I had 3 suspensions in 4 months, now I don't want to miss a day".
- Student #2: "In Big Picture, I can manage my anger issues better. I can recognise the signs and not react to the point where I black out, like before. Big Picture has made me more comfortable and confident to deal with situations in other ways. I can talk to people and I don't get angry without good reason and all I do now is swear."

Retention rates

Many students indicated they would have left school early if they did not enrol in BPL. In effect, these students have been "saved from being lost in the system" and are not simply kept in school to delay the inevitable, ineffective post-school transitions that would otherwise transpire. Advisors regularly continue to support students after they have left school.

Loss of students in BPL does not necessarily mean "drop-out" as students often leave BPL prior to the end of Year 12 having gained full-time employment through an LTI, started TAFE or early entry to university. Some schools report the return of students to mainstream in past years to pursue the HSC required for a particular post-school pathway. The introduction of the IBPLC will enable students to transition to university after graduating from Big Picture Learning, effectively eliminating the need for students to return to mainstream to attain an ATAR. The data available for students graduating is currently limited as few students have graduated Year 12 (and fewer with disabilities) since BPL was introduced in NSW in 2011. Many academies have not yet had their first group of Year 12's pass through yet. Further examination of this will be possible in the near future with current senior enrolments across Australia of approximately 600

students, with 250 students expected to graduate with the IBPLC in 2021.

Finally, it is important to note the impact of COVID-19 on retention rates. Many students, particularly those in senior years, did not return to school following the lockdown in 2020. However, the data shows this was more of a concern in mainstream compared to BPL. Interestingly, though drawing on limited data, the retention rates in BPL schools and academies for senior students with disability was 100%.

Major differences do exist between students in BPL and in mainstream, particularly for students with disability in mainstream settings, in terms of attendance, negative incidents, suspensions and retention rates. Some BPL schools and academies have lower numbers of students with disability as a result of Special Education Units within the mainstream setting. In other schools, BPL campuses are seen as important alternatives to Special Education units. In these settings, BPL fills a gap in the system and students flourish in the new learning environment.

Nationally Consistent Collection of Data:

Table 11 shows the breakdown of data from NCCD for disability and level of adjustment, as well as additional data provided by advisors.

From the data, it can be seen the level of adjustment required by students with disability ranges from "Extensive" to "Quality Differentiated Teaching Practice". Most importantly, students with disability receive formal adjustments to their learning in BPL at approximately half the rate of those students with disability in mainstream (48% compared to 104% - the percentage greater than 100% indicating some students in mainstream receive more than one adjustment). Furthermore, the level of adjustment required for students in BPL overall is lower than that required by students in mainstream, and from NCCD records overall. This is particularly significant given the proportion of students with disability is higher in BPL compared to mainstream.

The most common disability in both BPL and mainstream is in the social/emotional category, 194 (58%) and 561 (50%) cases respectively. The graphs below represent the distribution of disability categories in mainstream and BPL.

Table 11
Breakdown of data from NCCD (entries in brackets refer to students with additional needs not identified in the NCCD).

School	Level of adjustment				Primary D	Disability			Other Disabilities					
(Advisor responses)	Extensive	Substantial	Supplementary	Quality Differentiated Teaching Practice	Not Specified	Cognitive	Sensory	Social Emotional	Physical	Not Specified	Cognitive	Sensory	Social Emotional	Physical
School A (2/2)		2	1	1		1(1)		3(4)			1		1(1)	
Whole school	12	50	2		17	25	2	36	1	17	11	3	9	
School B (4/8)		8	27	9	3	11(6)		32(23)	1	3	6(2)	0	7(7)	
Whole School	2	54	68	44	21	81	2	62	23	21	17	0	12	
School C (6/6)	1	4	9		1	1(15)	1(2)	11(49)	1	1	(18)	(5)	1(12)	
Whole School		21	12	3	15	3	1	32		15			1	
School D (2/4)		1	5	2		3(2)		5(4)			2	(2)	(1)	
Whole School	28	56	85			84	1	79	5		47	4	30	
School E (3/3)		16	16	6	1	10(1)	(1)	28(3)	1					
Whole School		69	112	163		207	3	130	4					
School F (1/3)		1		8		6(1)		3(1)			(1)		(1)	
Whole School	18	39	36	56	21	72	6	58	13	21	20	13	34	3
School G (2/3)			1			(8)		1(8)				1	(5)	(2
Whole School		3	12		1	9		5	1	1	4	3	3	
School H (3/4)	1		4	2		2(8)	(1)	4(8)	1		1	1(1)	1(8)	
Whole School		8	5	17	3					33				
School I (2/2)			8	3		3(3)	(2)	8(7)			(1)		(2)	
Whole School	12	35	85	4	18	51	8	70	7	18				
School J (3/11)						2	6	25					2	

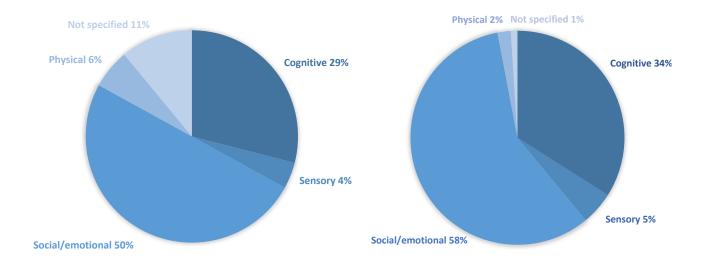


Figure 6. Percentage of students by disability category in mainstream.

Surveys

1. Principals

The principals of all ten Big Picture Learning schools and academies in NSW responded to the survey. Eight of the ten BPL schools / academies included in this research have been established for 4 or more years, ensuring some confidence in the experiences reported. While most principals agree that additional professional learning opportunities for implementing the Design for students with disability would be worthwhile, the philosophy, "one student at a time in a community of learners" ensures and supports the personalisation and differentiation of learning for ALL students - "we treat our students [with disability] like all our other students". Furthermore, 80% of principals report the implementation of the Design ensures sufficient resources are available to promote positive wellbeing outcomes for students with disability. However, this does require time, dedication and commitment from advisors to be effective.

Eight of ten schools with BPL academies also have special education units (also referred to as learning support units and diverse learning faculties). In

Figure 7. Percentage of students by disability category in Big Picture Learning.

each of these schools, students enrolled in these units represent between 4-10% of the total student population. Placement in a special education unit is a Department of Education process requiring an access form and a diagnosis for enrolment. This is often accompanied by long waiting periods. By contrast, enrolment in BPL is a school-based process which is completely inclusive. The application process includes both the student and the parent(s) and/ or carers, ensuring the suitability of the student to the Design. Students who are disengaged in mainstream are given the opportunity to explore interests and demonstrate their ability as an independent learner. Advisors identify learning adjustments required for each student, developing personalised learning plans to support the student: "to start, they will scaffold the program so that students are not overwhelmed, gradually reducing [support] as students manage their learning. Careful consideration is given to LTI placement". All students are guided to become independent learners - self-directed, motivated and engaged.

"Clever advisors are curious learners too and they research to support individual students. Our culture is inclusive of all, tolerant of difference and supportive of challenges". Principal, School B.

The flexibility and creativity associated with the way students learn in BPL results in fewer learning adjustments and less task modification being required. The learning adjustments are more personalised in BPL and the Design ensures students' needs and the effectiveness of strategies are continually monitored, giving every student the opportunity to succeed. "The Big Picture Learning design is all about individual students accessing relevant learning programs". Learning Through Internships and provision of mentors provide opportunities for exploring post-school options and is of particular importance for students with disability.

2. Advisors

From the 9 government schools participating in the research, 26 advisors out of a possible 37 (70%) completed the survey. These advisors joined Big Picture Learning between 1 and 10 years ago and students from Year 7 to Year 12 are enrolled in their advisories, with an average of 16 students in each advisory. It is evident that advisors have chosen to be involved in BPL because they 'believe' in the Design and they aspire "to work in an environment more focused on individual students than standardised measures of data". Many advisors felt discouraged and dissatisfied working in mainstream and BPL provided the opportunity to "play an active role in true, flexible and authentic learning" for students "to work on passion projects while incorporating real world and life skills" "according to their individual needs" in order to "reach their full potential and achieve their goals".

"When I saw the applications of Big Picture for students in the grand scheme of learning, it hit me like a bag of bricks – this is what teenagers need to help navigate this period of life. I could see that kids wanted to learn and had the autonomy to steer their learning. Big Picture is truly helping students, not just teaching them". Advisor, School D.

Advisors' average rating of the effectiveness of the Big Picture Learning design for students with disability was 4.25/5 and of family involvement was 4.46/5, compared to their previous role in a mainstream setting. Advisors responded that they knew their students well in terms of strengths and challenges (100%), wellbeing (100%), aspirations (93%), family contexts (90%) and beliefs and attitudes (67%).

There was some variation in the numbers of students with disability in each advisory. Five advisories had no students with a diagnosed disability, and only one advisory had no additional students with undiagnosed disabilities. There were between 0 and 13 students with diagnosed disabilities, and between 0 and 17 students with undiagnosed disabilities in each advisory. Many students with diagnosed disabilities are not included in data from the NCCD (see Appendix D).

Whilst some students with disabilities had funding support, many students were reported to be supported purely by the Design, "the same as every other student" as it "caters for all learners". The aspects of the Design considered particularly helpful for students with disability include the flexibility of the Design in terms of content, learning style, learning pace and approaches to communicate their learning. Participation in schoolwork and out-learning opportunities allow students to work towards "creating a body of work aimed directly at where they want to go postschool and prepare sooner" for future pathways. The safe, respectful and stable environment means "students with disability do not fall through the cracks and are better supported". The confidence and self-awareness gained from being a valued member of the advisory has a flow-on effect to other aspects of their life. Specific strategies to promote engagement are based on the individual needs of students and what works for them - "if we

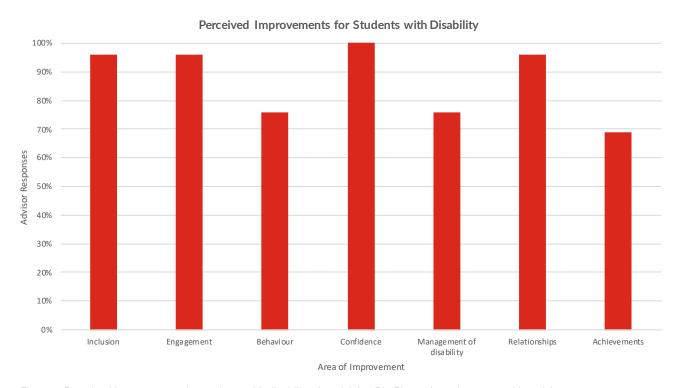


Figure 8. Perceived improvements for students with disability since joining Big Picture Learning reported by advisors.

don't know, we trial things until we find solutions". Some students may require additional scaffolding, more regular check-ins, and scheduled breaks. A positive classroom culture ensures all students are "seen and heard" and have opportunities to experience success.

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Many students were seen to demonstrate improved social skills and build relationships because of greater confidence and a sense of belonging and being valued in the advisory. "My students with disabilities have responded so well to the BPL design. They feel safe in the advisory and enjoy being with the same people each day". The improvement in attendance was common: "I would say everyone in my class has seen an increase in their attendance at school and due to this they are more engaged. Because they get to work on their topics of interest or their passions their confidence has dramatically improved." Advisors noted improvements in individual students in terms of information retention, curiosity, reflection, asking questions, sense of humour, following instructions, expressing empathy, and being adaptable.

Advisors consistently reported that advisory culture was respectful and supportive. The needs of all students are generally met with acceptance and patience and students are treated as individuals regardless of disability - Big Picture Learning students are not identified on the basis of their disability. Student's attitudes and behaviours towards students with disability are the same as they would be for any student. An understanding of each other's differences creates a diverse and inclusive learning environment. Specific strategies to promote inclusion are centred around open, positive, and respectful discussions where everyone has a 'voice' and is expected to contribute. Advisory activities which are part of the Design provides many opportunities for this - check ins, check outs, Townhall, shared social action projects and peer invitations to exhibitions. Furthermore, the Design allows for specific needs to be accommodated in the advisory: students can move around, listen to music, make lighting adjustments, eat snacks for energy, use a timer to help manage their schedule, take breaks, and have time out or move to a quiet space if required.

"I know my students well. I model acceptance and challenge students...... Students are great at regulating each other's behaviours and letting them know what is and isn't expected in our advisory". Advisor, School I.

All advisors responded that they felt BPL prepares students well for life after school. The processes by which this transpired were mainly associated with a "realistic understanding of the real world" and the development of "relevant and targeted skill sets" such as:

- communication skills, developing relationships and building community connections
- organisation skills
- self-awareness and confidence
- exposure to real-world learning relevant to their interests
- opportunities to explore interests and associated further study / career options, and manage expectations, prior to leaving school.

"Big Picture gives them real-world expectations. They are accountable for their success and this demonstrates the results of hard work. This gives them a safe space to implement self-regulation skills when challenged so they can cope with life after school". Advisor, School E.

The number of students with disability in 'Learning Through Internships' is comparable to the number of students without disability participating.

Although COVID-19 created some difficulties in finding placements in general, disability was not considered an obstacle for LTI's. Students old enough for LTI's were either currently accessing an LTI, engaged in shadow days or block placements, participating in in-school internships, attending TAFE or actively pursuing out-learning experiences in the community. Students with disability often require additional support dealing with anxiety and some challenges associated with LTI's initially,

such as transport arrangements. Building student confidence is essential if students are able to participate successfully in internships. However, once engaged, students experience success and many create ongoing relationships. One advisor, from School E, reports all four students with a disability from his advisory have participated in LTI's. "Student 1 organised an LTI to do tiling. He was excited, challenged and was successful; Student 2 organised an LTI in fashion design. She was highly anxious before zoom meetings, however, once engaged was successful. Student 3 organised and successfully completed a wildlife research and conservation LTI. The organisation was very impressed with her knowledge and skills. Student 4 organised an LTI with a dog trainer. He became very knowledgeable, the organisation was very impressed, and he continued to volunteer during the school holidays". Specific strategies to promote effective transitions are largely related to these internships and community engagement. These allow students to explore available services and investigate suitable and achievable pathways. Advisors often co-ordinate transition meetings with students and families and assist in creating connections with mentors and workplaces within the community.

"I love the design and have seen it change lives". Advisor, School B.

However, some barriers exist for students who continue to struggle with independent learning and social interaction. These are critical aspects of the Design and can be particularly challenging for students with complex disabilities. 30% of advisors reported that they have had a student whose disability had posed a barrier to successful participation in BPL. Sufficient time and support to adjust to the new learning environment is important in eliminating refusal and alleviating the anxiety experienced by these students and providing them with the greatest possibility of thriving in BPL. Over 65% of advisors reported the level of support and resources required by students with disability is greater than for students without disability.

Advisor comments to illustrate improvements experienced by students with disability since joining Big Picture Learning:

Students are always at school (don't avoid) and respond well to behaviour management through inclusive, respectful advisory expectations. Parental involvement makes this extremely successful.

Communication skills have improved in BP as [student] has developed more confidence and now greets us good morning and goodbye in the afternoon.

[Student] has gone from being home schooled to being able to participate in educational setting.

[Student] with anxiety/ ADHD/depression has increased his attendance. workload and wellbeing since enrolling last year.

At her previous school [student] was disengaged, not achieving very highly, in frequent trouble for

behaviour issues, and wanted to leave school ASAP. Since joining BP she has excelled. She is on a university pathway and is a standout in her good behaviour and maturity.

[Student] with ASD who arrived on a detailed transition plan and had very negative experiences with several schools in the previous 2 years which resulted in home schooling has, in 1 term, made friendships (having never had friends), and successfully completed many of the components of BP including fundamentals, PIP and an

impressive exhibition. This is a triumph. When she arrived to do her exhibition there were some technical issues with her presentation which she was able to identify as a glitch and not a catastrophe which is how she would have reacted in the past. She

has ticked all the boxes.

A young woman from Eritrea is currently working at the local primary school on permaculture/ environmental waste management with year 1 students - interpreting and teaching composting.

[Student] could not look at his audience for his first couple of exhibitions. He was very softly spoken (really mumbling) and had his hat on over his face. Now he confidently gets up with a wellprepared exhibition and really highlights all his achievements. He is

particularly proud of his internship.





[Student] has been welcomed into a range of peer groups at lunchtime and is socialising and communicating openly in and out of class. Through discussion with his parents, they are very pleased with his progress and ability to work autonomously on his projects while letting him learn through experience. He has also improved his interactions with adults through LTI and his work with his SLSO. He has found an environment that suits him as a student and young person.

Students have engaged in LTI and developed a sense of belonging and gained confidence.

[Student] has acknowledged how her anxiety has limited her success and

is now getting help.

[Student] has had more time to read and learn how to read more fluently. She previously had a lot of spelling and grammatical errors in her emails, portfolio, and exhibitions but it has been reduced to only 1-3 per paragraph.

[Student's] confidence and self-esteem has improved. He has become more patient with attaining positive results.

[Student] will actively participate and engage with others in advisory whilst being fed through his tube. Extreme confidence in knowing who he is and his passion.

Having more agency means less likely to be bored or engage in misbehaviour.

[Student] with a diagnosed disability has grown in confidence. He has social anxiety. He started off in BP not being able to talk to others but is now leading check ins and interviewing students for his project.

On more than one occasion, parents have been overwhelmed with what the students have been able to demonstrate at Exhibitions.

[Student] now has friends.

[Student] came from another school with very low attendance and high anxiety. He was initially reluctant to attend all 'out of advisory' activities and take part in group activities. Attendance and advisory contribution is now improving.

Students are able to design learning around their disabilities so they can choose a workflow method that works for them. [Student] doesn't have to deal with disruptions of moving from class to class

and is included much more in BP than in mainstream. They show high engagement with their work and have volunteered with the council and attended council meetings. They feel confident presenting

at Town Hall and singing at exhibition. [Student] made a panic attack plan with me that is visible on his desk and has been effectively used twice this term.







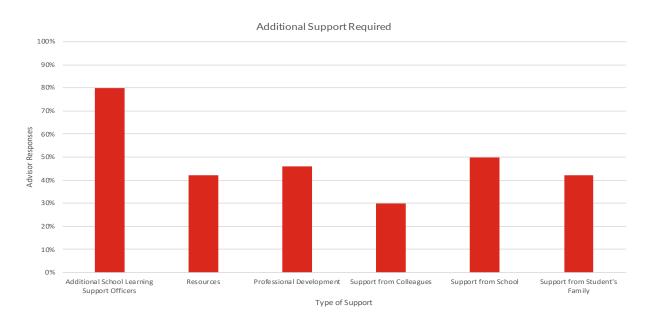


Figure 9. Type of additional support required according to advisors advocating for additional support.

"All students in my advisory succeed. However, with more support their growth could be more significant". Over 60% of advisors considered they received sufficient support to work effectively with students with disability. The particular type of support required by those advisors suggesting additional support is necessary is shown in Figure 9.

Students are enrolled in BPL on a case-bycase basis, regardless of the presence or not of disability. This ensures the suitability of the Design for the student, with a focus on their ability. "In many ways, disabilities are embraced as different abilities." The Design is considered to have "the ability to successfully cater for all students but needs to maintain a high degree of flexibility and advisor autonomy to facilitate this". Constant one-on-one support for some students can place significant pressure on advisors, but this is related to individual needs of students, not necessarily associated with disability. "We see the students consistently and can identify their needs and gaps in learning. The program needs to be seen as an environment where support can be functionally accessed and applied for those who need it."

"Our school also uses the Big Picture Learning design in our support unit. We have a high satisfaction rating from parents of students with disabilities in terms of the learning environment and design. If we are looking for a better design for students with disabilities, I have yet to see it". Advisor, School D.

3. Students:

From the 9 government schools participating in the research, 231 students out of a possible 622 (38.5%) completed the survey. BPL has always included students openly in discussions about their learning. Their input has repeatedly been shown to provide insight into the Design. The responses provided in the student survey confirm the value of their contributions.

Students join BPL for a variety of reasons centred around exploring new, personalised, passion-based learning opportunities. Students reported the transition into BPL did not pose any particular difficulties. BPL provides students with a 'fresh start' and the opportunity to accomplish their goals.

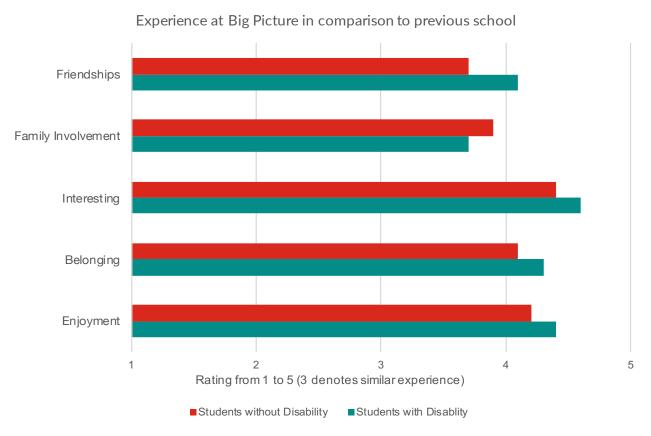


Figure 10. Student experiences at Big Picture Learning compared to their experiences at their previous school – for students with disability and students without disability.

Specifically, students with a disability reported the need

 for a "quiet, comfortable, supportive environment"

"I can be myself" Student, School I

to escape bullying (and related mental health issues) experienced in mainstream

"I never really fit in at normal school", "School has always been a struggle for me", "My other school was not capable of supporting me and my needs. I was bullied and miserable" Students, School C;

 to "push myself academically" and "expand my knowledge, skills and opportunities"

"The learning development opportunities seemed worth the risk". Student, School B.

"I was always stressed at my previous school, and I knew I would get nowhere in life if I stayed in the outdated mainstream education system". Student, School C.

"Mainstream wasn't enough for me", Student, School E.

"Mainstream curriculum wasn't rigorous enough for me" Student, School C.

"Sit, listen, copy. Mainstream is every day on repeat" Student, School I.

 to help create a "pathway to my goal in life / dream job" and "set me up for the rest of my life".

"It was my last chance before dropping out."
Student, School C.

"This program will give me more of a chance to enrol in university and have more knowledge related to what I want to do" Student, School E.

Figure 10 shows that Big Picture Learning has had a positive impact on the experiences of students with disability in comparison to their experiences in their previous school.

Of the respondents, 56 reported they had a diagnosed or undiagnosed disability (24%). Students with disability reported experiencing more difficulties than students without disability that impact classroom learning (51% compared to 23% respectively) and relationships (36% compared to 18% respectively). The most common support strategy for those students experiencing difficulties was their relationship with their advisor, considered an important role model by many. "I'm very lucky to have such an understanding advisor who can relate and help me, not only with schooling, but with personal / family issues as well. I feel I can go to him whenever I need to". The flexibility of the Design accommodates individual needs, allows time for problem solving and provides a small, stable, safe space for friendships and confidence to develop. "My advisors are, hands down, the best people I've ever known. They are super helpful, loving and caring and are always there for a good laugh. I wouldn't trade them for anyone else. My advisory is a very diverse bunch and I love it. We all laugh and hang out together". The advisory was commonly compared to "a family", unconditionally accepting and supportive - "I feel like I can truly be me".

"Big Picture makes school life generally easier and more enjoyable, which has changed everything for me" Student, School C.

"I know that everyone in my advisory has my back and will be there to support me no matter what" Student, School E.



Many students without disability reported experiencing symptoms which adversely affected their mental health in mainstream. Students reported joining BPL because: "I was sick of hearing how important my ATAR is", "I was bored, side-tracked and falling behind and not interested in my learning", "I needed to be challenged", "I was in trouble all the time", and "classes were always unsettled and disruptive". These symptoms were reported to be alleviated since joining BPL. "I am very happy that I was given the privilege to join the Academy" and "get a head start on my career plan". In addition, students without disability reported support from their advisor, and the Design itself, were critical aspects in dealing with difficulties. The flexibility of the Design "helps me cope and figure out how to approach my learning in a way that doesn't cause me to feel cornered". This allows students to "focus on wellbeing when needed" and learn "without the stress". Students appreciated being treated as adults and reported the importance of their "own space" which they personalise and "keep nice and tidy".

"Big Picture helps me because I am not in trouble when I crash and burn, I'm able to pick up where I left off" Student, School C.

All students reported significant academic and social growth since joining BPL. 85% of students with disability and 90% of students without disability reported they felt they had grown academically since joining BPL. Academic growth

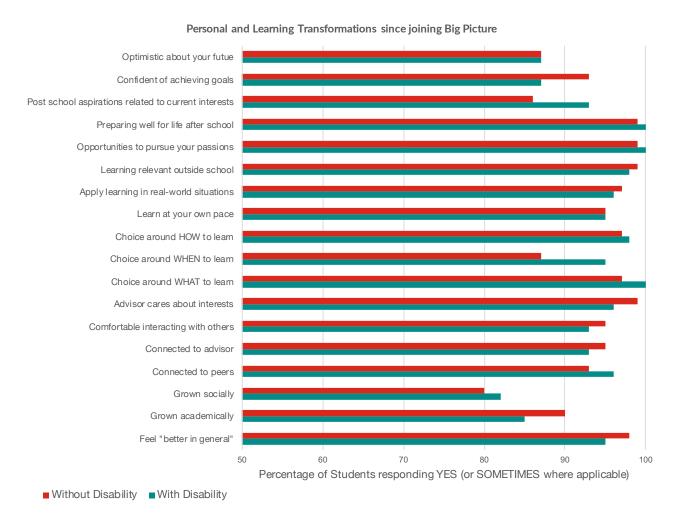


Figure 11. Student personal and learning transformations since joining Big Picture Learning – for students with disability and students without disability.

was associated with improved work ethic ("I am improving everything I do"), improved time management ("I am no longer putting things off") and gaining real world experience in a chosen interest ("Big Picture Learning has set me up for university because of in-depth learning and collaboration with adult mentors"; "I have had access to many ways to look into my interests and have gained loads of experience on worksites and in the community"). A broad selection of topics with greater relevance creates improvements in motivation and engagement in learning - "I push myself more now and the results are better!", "I am more ambitious and enthusiastic", "I want to come to school, I want to learn". Again, the comparison of the learning experience in mainstream and in

BPL provides insight into the academic growth of students:

- "Last year I was not getting much work done or showing much interest compared to now" Student, School B
- "When I was in mainstream I didn't really pay attention to subjects I wasn't interested in, but now I research anything I don't understand because I am interested" Student, School E
- "Before Big Picture, I couldn't even read a chapter of a book in an hour. I am now reading at a much better level and reading a chapter in half an hour" Student, School E.

"I have grown academically because I have been given the chance to explain myself and my needs. I am able to ask for clarification when I need it, without feeling embarrassed or ashamed. I am free to be who I want to be, which leaves more brain power for actual schoolwork" Student, School C.

82% of students with disability and 80% of students without disability reported they felt they had grown socially since joining BPL. For some students, social interaction remains a challenge while others are quite comfortable with a level of isolation. Often, having fewer friends is counterbalanced by having "more authentic friends". The most common reason for social growth for students with disability was simply having friends where they didn't have any before - "I was constantly bullied and taken advantage of". "Being in Big Picture has pushed me out of my comfort zone in a good way. I used to never speak to anyone and refused to engage in class discussions, but now I love meeting people and trying to make new friends".

"I was a very lonely person before and now I have a whole group of friends who are here to support me" Student, School E.

More open discussions run by students, with advisories smaller than regular class sizes and being with the same people every day, provides students with opportunities to really get to know other students and "to learn about each other and our interests". Students reported being more likely to ask questions of others, allowing them to "meet new and interesting people", "develop a diverse range of friends, talking to people from different groups frequently" and "create stronger bonds". Students felt more comfortable "expressing themselves without judgement", "finding my voice to be able to speak more openly" and not feeling "like a weirdo everywhere I go". Presenting exhibitions allows students to gain confidence in public speaking. Students also reported that being more involved in the wider community has

enabled further development of their social skills and extension of their social circle to include closer relationships with adults. The Design provides opportunities to make adult connections and speak with mentors. Students without disability stated being more socially aware and more likely to advocate for issues relating to oppression - "I have learned more about people than I have anywhere else".

As previously stated, the desire to focus learning on areas of interest is a central motive to join Big Picture Learning. All students are given the opportunity to pursue these passions through personal interest projects (PIP's), internships and other contextual approaches. Importantly, there is no significant difference in these opportunities for students with disability and students without disability: PIP's - 88% v 87% respectively; internships – 55% v 58% respectively; other approaches - 32% v 25% respectively. Students with disability and without disability reported having opportunities to apply their learning in real-world situations (96% and 97% respectively). Students spend time in the community to work, volunteer, visit local businesses and speak to business owners associated with areas of interest. This helps students make connections and learn skills relevant to their post-school pathway. Enrolment in short courses and certificate courses at TAFE, completing job profiles, preparing resumes, gathering references, and role-playing professional scenarios such as interviews helps students make contacts and develop skills for successful post-school transitions. These strategies are particularly important for students with disability who are required to navigate a complex system of support available post-school - "Big Picture helps us find and form pathways for our futures".

"LTI's are a great place to not only learn but also show and apply that learning in your work. It helped me get my first job!". Student, School G. Being treated as young adults "prepares me to feel comfortable in an adult society" – "they never hold you back!".

"I am guided to think bigger. Don't apply for jobs with your knowledge, create a business. Don't be satisfied with a single topic, branch out to related ones. I just feel more like an adult every day". Student, School D.

Some students express concerns regaring the specificity of their knowledge and skills from an early stage: "I worry I won't have the knowledge to get a different job if my ideal ones don't work out because I won't have the courses needed". This is a concern echoed by some parents also. An understanding that the Design does not pose such limitations, as well as the additional opportunities afforded by the IBPLC should alleviate the concerns of these students and parents. It is

important that this is communicated effectively and that advisors are implementing the Design correctly and consistently.

Students regularly commented on becoming more independent, responsible, confident, creative, and happy. Of interest in Figure 12 is that the positive emotions experienced are generally more likely for students without disability and more negative emotions are more likely for students with disability, with some exceptions. It is important to note here that for many of these students with disability, despite the responses differing from those without disability, qualitative data gathered suggests it does represent a vast improvement on what the response would have been prior to joining BPL.

Most students (96%) had a clear vision of what they wanted to do after they graduated from BPL.

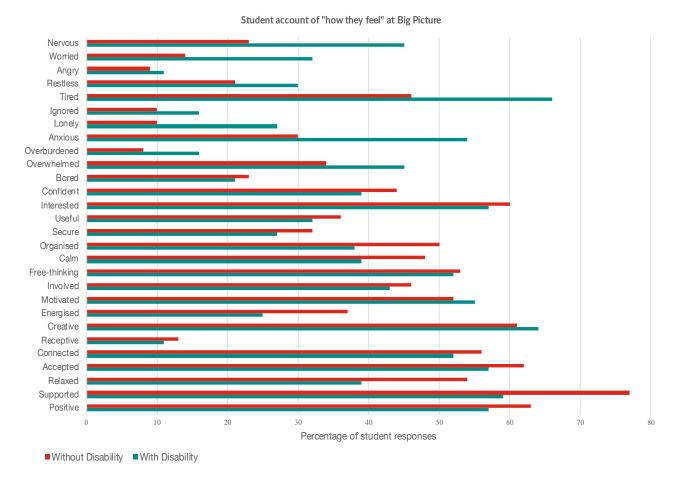


Figure 12. Student accounts of "how they feel" at Big Picture Learning - for students with disability and students without disability.

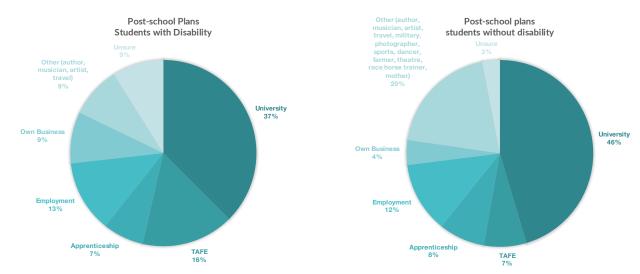


Figure 13. Post-school plans for students in Big Picture Learning - for students with disability and students without disability.

"Big Picture is ten times better than mainstream. Students help each other out, no-one is better than anyone else, you are not compared to others. Everyone is good at something – Big Picture helps you find out what that is". Almost all students with disability and students without disability were confident in achieving these goals (87% and 93% respectively). These included further study at university or TAFE, or employment in a specific career.

The anticipated pathway was related to interests currently being explored in BPL for students with disability (93%) and for students without disability (86%).

Possibly the most important feedback from students related to their insights into where they thought they would be now if not for BPL. The majority of students said they would have remained disengaged in mainstream, if in fact they had stayed at school at all. In many cases this was associated with mental health issues. Of most concern, some students reported they would not have survived. For students with disability, only 10% responded that they would have positively remained in mainstream and continued their education. This was attributed to them not having the opportunity to learn what, how and when it suited. This led them to be either:

- bored with the same thing every day: "In mainstream I wasn't a bad student, but I was bored. If I was still there, I would be very stressed about all the different exams"
- struggling or failing in their work: "If it wasn't for Big Picture, I think I would be at my local school wasting my education without any support"; "I would be emotionally drained and not achieving academically"
- not "seen or heard": "flying under the radar" "keeping my head down",
- · getting into trouble
- avoiding attending school altogether.

The identification of interests and a sense of purpose associated with their work was shown to be integral to their engagement in learning and caring about their future.

"I definitely wouldn't have the knowledge and experience I get from Big Picture" School G.

"Definitely not happy, still struggling with my anxiety and I wouldn't have realised what I wanted to do or how to pursue it" School C.

"Nowhere near where I am now" School B.

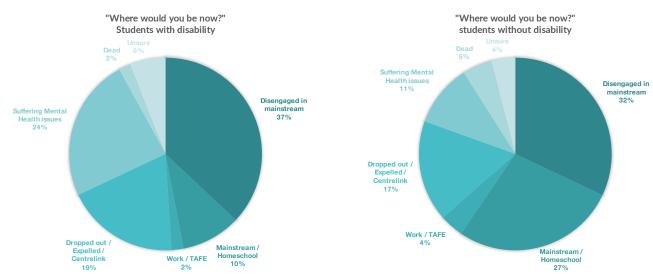


Figure 14. Student response to "where would you be now if not for Big Picture Learning" – for students with disability and students without disability.

One student comment encapsulates the sentiment of many: "I think I would be wishing I was in Big Picture" School A.

One student specifically noted the importance of reflecting on this: "I particularly liked the question where I'd be if not for joining BPL. This is something that I think should be explored more by all students" (School D). This student's specific response to that question: "I doubt I'd be attending school anymore....I wouldn't have found the individuality to go against the grain and be my own person".

Some final reflections from students:

"I feel unique". School I

"I believe Big Picture is the place where I feel most accepted. I want to be here and so do the people around me". School B.

"Big Picture is awesome!". School D

"Big Picture has shaped me and given me hope". School A

"Big Picture is the best opportunity I have ever taken." School A.

"I am a huge supporter of Big Picture. I wish

the education system adopted more of its principles." School C.

"Big Picture saved my life. If I had stayed in mainstream I would have come out of high school hollow." School D

"I think Big Picture is misrepresented in mainstream and they need to be more educated in the program. I would prefer future generations of Big Picture students don't have to go through the shaming from mainstream students just because they choose to learn differently." School D.

"I believe that Big Picture has the capability of becoming something revolutionary. I'm so proud to be part of this program." School G.

"I am so grateful to Big Picture. I hope that one day I meet the founder and personally shake his hand for making my learning so much better." School G.

"I believe wholeheartedly that the Big Picture program should be used in every school". School C.

"Big Picture makes me feel amazing and I look forward to it everyday." School E.

4. Parents:

From the 9 government schools participating in the research, 129 parents completed the survey. Of the respondents, 48 had children with either a diagnosed or undiagnosed disability (37%).

Parents were first asked why their child enrolled in BPL. The overwhelming message was that their child was, for a variety of reasons, disengaged or discouraged in mainstream education:

- "Big Picture Learning is an environment with others who want to succeed in their education"
- "Pressures of a selective high school were too great. She was not reaching her potential due to anxiety caused by perceived and real pressure."
- "He specifically wanted to focus on the type of work he's passionate about and always puts far more effort in and gets better results when doing what he's interested in"

Parents reported that they felt BPL was meeting the needs of their child with disability (92%) and without disability (89%). The opportunity to be part of a supportive, inclusive advisory where individuality is celebrated and students are able to work on areas of interest ensures they feel safe and in control of their learning, without having to regularly change rooms and teachers. Students are motivated and take responsibility for their work and are provided with the opportunity to demonstrate their skills and knowledge in non-competitive, innovative ways with real world relevance. This enables them to "feel successful again". Parents noticed that their children gain confidence from being treated more as an adult and not being subjected to bullying - "the calm atmosphere means her anxiety has decreased and she actually has good days at school now".

Students demonstrated improvements:

academically - "Her literacy has improved a lot"

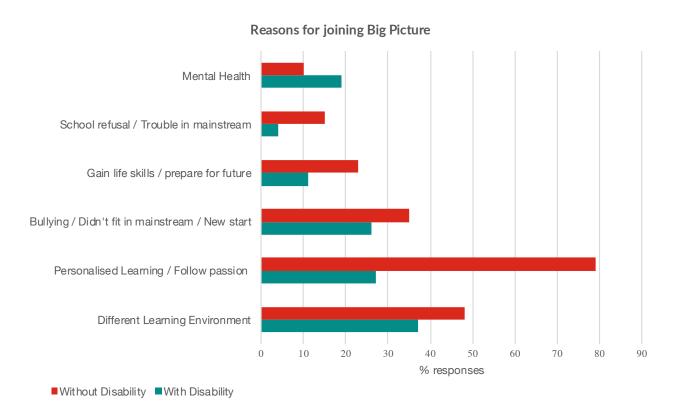


Figure 15. Reasons for joining Big Picture Learning from parent responses - for students with disability and students without disability.

- personally "Being able to create a curriculum around my son's interests has been amazing for his self-esteem"
- emotionally "My son has severe anxiety and struggled in large loud classes. He is thriving in Big Picture"
- socially "He is in a far happier situation.
 He is happy to go to school and feels like
 he belongs. He is not hassled for having a
 disability. Everyone is accepted for who they
 are".

"They don't even realise they are learning half the time".

Parents acknowledged the respect that their children had for their advisors and the importance of their advisor's guidance in the personal and academic growth they have observed in their children.

"The way the advisors interact with students is uniquely personalised and supportive"

"They exceed all my expectations and go beyond".

"He's learning how to manage his time, how to ask great questions and then how to research the answers to those questions. He's also learning a lot about his topic of choice"

"My child describes a feeling of being validated with endless support"

"Being able to navigate her learning with what she's passionate about, has given her confidence (that she's never had before) about her learning & seeing her excited about learning just makes me so grateful".

From the responses of the small number of parents that felt their child's needs were not being met, it does seem that some of the grievances could be rectified by a better understanding of the Design by parents or more consistent implementation of the

Design by schools and / or advisors. Some parents of children with disability felt that (1) the transition to a less structured environment can be difficult, (2) too much time was spent on mainstream curriculum, (3) more social opportunities outside of the advisory would be beneficial, and (4) more work opportunities and support finding LTI's was expected. Interestingly, the comments from parents of children without disability were in direct contrast to those above. They felt that (1) the learning environment was too structured, (2) that more focus on pushing academics and curriculum is required (esp. maths) along with more academic competition, (3) that so many students with mental health issues is a concern - "I am concerned about the influence that some of the students from trauma backgrounds are having on my child", and (4) that there is too much free time / down time for students not independent or motivated - "Big Picture doesn't overcome laziness or mobile phone addiction". Importantly, Big Picture Learning is not a silver bullet - a strong commitment and the capacity to work independently is required of students. Finally, consideration to include exposure to some content not directly related to interests is perhaps justified – "Sometimes you don't know what knowledge might be useful later on in life."

For parents of children with disability, there were significant changes perceived on all measures listed in Figure 16. Many indicated that they believed their child would not have continued school if not for BPL - "The biggest change has been her mood and not avoiding school. She is really proud of Big Picture"; "He is very enthusiastic and doing well. He even works on his projects at home". Noticeable changes in mental health, attributed often to an increased sense of belonging, enables learning to be more effective - "Anxiety has reduced, enabling him to build confidence and increase learning"; "My child's anxiety has improved immensely", "Feeling a sense of belonging she feels she is being seen by others and this provides validation that her gift is truly amazing", "Emotionally he is in a much better place".

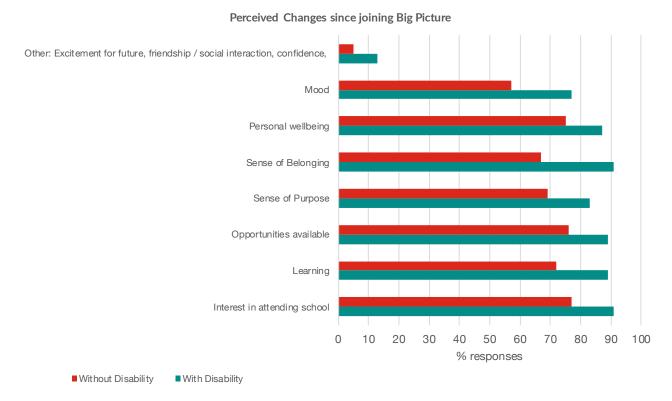


Figure 16. Perceived changes in their child since joining Big Picture Learning from parent responses - for students with disability and students without disability.

"My daughter is the happiest she has ever been. Six months ago, I could not have imagined her being able to attend school. She has had long periods of school refusal, but has finally found a learning environment that suits her and where she feels she belongs. I am so grateful to have this opportunity available to her. Her mental health has also improved significantly". Parent, School C.

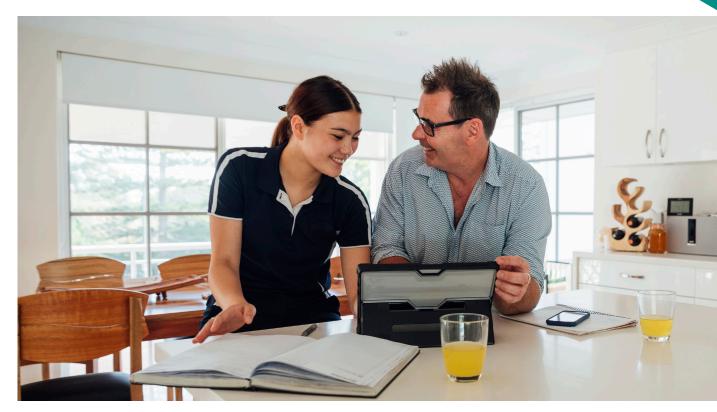
"My son is a positive influence on his peers by helping others with their work and making them feel involved as well as learning and incorporating his work with others. He is learning outside of his comfort zone and feeling like a part of the 'team'" Parent, School G.

Parents of children with disability often referred to seeing the potential in their child but needing a supportive environment for their child to build self-confidence and self-belief. Parents trust the Design to enable their children to achieve their goals and are "proud of the phenomenal success experienced because she is autistic" and "I feel proud of her achievements and what people are trying to do for and with her, and grateful as the outlook was bleak without Big Picture."

Similar responses were provided from parents of children without disability, indicating changes in confidence - "He has the opportunity to work towards university early entry without the pressure of ATAR subjects", a sense of belonging - "She is treated as an adult, not just a number", improved engagement - "Any disruptive behaviours he has displayed in the past have ceased", and reduced bullying experiences.

Many parents reported a greater interest in finishing school with positive plans for the future:

- "He has surprised us with his keen attitudes"
- "My child has gone from a school refuser to



a school enthusiast! It's like a cloud has lifted from her, she seems happy now and excited about her future for the first time in years. She has made lots of new friends"

 "We absolutely love this program and my daughter's teachers are amazing. We feel that this program has given our child the best possible chance to become a valued member of whatever field or profession she chooses".

"He is very accepted in his class, everyone seems to get along and they care about each other. He enjoys learning what he's interested in and is proud to be a Big Picture student". Parent, School H.

"My oldest child would have been a school leaver in year 9 if it weren't for big picture. Both children are now in a place where they feel valued as individuals as well as valued for their contributions to society, leading to an ongoing upwards trajectory". Parent, School B.

Parents reported significant improvements in academic achievements:

"With learning, reading was always a major struggle for her & it brought her no joy, she is now reading books about her passions which has opened it up to her reading & learning things she never thought she could. She always felt like the dumb kid, felt like an outsider in class. Now she has confidence in learning & feels able to contribute to her peers instead of sitting back saying nothing. Instead of it being like a chore she is now reading things she is passionate about & loving it". Parent, School A.

"When my daughter was in mainstream, she would get so bored and would leave doing assignments until the last minute but still got good grades. With Big Picture the independent learning and being able to work at her own pace she is now very organised and will have work completed well in advance with her putting in a lot of effort

to produce high quality of work. I love that she can learn in a way that suits her and also sets her up to deal with the realistic day-to-day dealings in whatever workplace or career that she decides on. I know that my child would have cruised through mainstream whilst still doing well she would not have been challenged to do this quality of work as she does now in Big Picture".

Parent, School A.

When asked for any further comments, almost 40% of respondents simply expressed gratitude. Parents referred to Big Picture Learning as "unique", "amazing", "fantastic", "refreshing", a "life saver", "invaluable" and "making a world of difference" – "My son would never have returned to school if it wasn't for Big Picture". Many parents attributed the change in their child to the support, encouragement, hard work, commitment, and dedication from advisors - "Well done beautiful teachers for your contribution to make awesome Big Picture students".

"We are so grateful our children found their way to Big Picture. Even though we are not sure where his future lies, we are happy that he goes to a school that accepts him for who he is and acknowledges that academics is not the only form of intelligence".

"Thank you to everyone involved in this program, it has made the world of difference for my daughter!!"

"Both of my children enjoy attending school and look forward to it every day. My daughter in Year 11 has been provided with the most amazing opportunities that she would not otherwise have had in mainstream classes. I am beyond grateful and impressed with what she is achieving. My son in year 8 is still exploring his options and possibilities. I am grateful that he is able to do it in this environment. I have seen both of my children's confidence grow immensely since they've been in Big Picture and they are both

so much happier. I think all children should have the opportunity to learn through these methods".

And finally,

"I wish Big Picture was available when I was in high school! It's a brilliant way to motivate kids to learn where there's no limit. For the right type of student (self-motivated and not too lazy) there are amazing life skills taught in Big Picture, like goal setting and time management brilliant!" Parent, School H.

Case Studies

24 students with disabilities from Year 9 to Year 12 (at least two from each participating school) were interviewed during school visits conducted in Term 2 2021. The case studies consisted of three parts – a one-on-one interview, Big Picture Living Questionnaire and a wellbeing review. This provided more detailed data to illuminate and investigate further what is found to be of significance and interest in the survey data.

Interview

The students were interviewed to gain additional insights into their disability, family structure, educational background of parents and educational experiences prior to, and since joining, BPL.

Two thirds of students came from a two-parent household and the remainder came from single parent households. Household structure often included blended and extended family, with the number of siblings ranging from zero to nine. 30% of students reported their home life did not present any significant challenges for them. Those students reporting that they did experience problems at home detailed episodes of domestic violence, parental health problems, or a lack of connection with, or support from, their family.

Most students reported that their parents value education for their child, in order to "get a good job", "do well" or study further. Parents are required

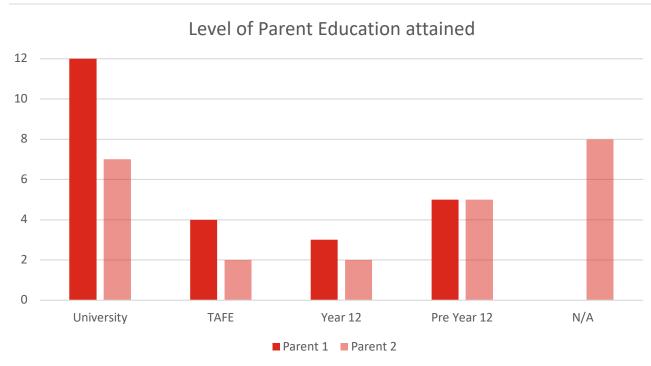


Figure 17. Level of educational attainment for parents of students with disability.

to support the enrolment of their child in BPL, and they consider the opportunities available for their child with disability to be valuable and effective. This confirms the importance of 'enrolling' parents in BPL alongside their child so they understand the Design and can support their child to reach their potential. "My mum communicates with [advisor] and [advisor] works with mum to be supportive", "Having my family involved in my Big Picture journey is important so they can keep track of my learning and are able to see where I am at to help me even more". Of particular importance is that this position is held by parents of all levels of personal education attainment.

From Figure 17 it can be seen that university was the highest level of education attained for 50% of 'parent 1' and 30% of 'parent 2'. One third of parents overall did not pursue further study after completing school in Year 12 or earlier. 80% of students interviewed expressed interest in pursuing further study after completing school, making them "newcomers" to tertiary education, who traditionally experience difficulties transitioning to university. Students whose parents are not

university educated, known as "first in family", are "less likely to aspire to university than those with university-educated parents" (Patfield, Gore & Weaver, 2021). The pathway and support provided by BPL addresses the inequity associated with this experience and enables these students to consider a pathway to university. The students were excited about the IBPLC and the opportunities it presents, and all students reported that their ambitions were linked to the interests they were currently exploring at BPL. 85% of these students had participated in out-learning experiences such as TAFE and shadow days, while 75% of students had participated in up to 5 internships depending on the length of time they had been enrolled in BPL.

Student Experiences

1. Wellbeing

Students were asked to comment on their experience at BPL in comparison to their previous school. Many students emphasised bullying experiences, lack of support, large classes and adverse learning environments in mainstream.

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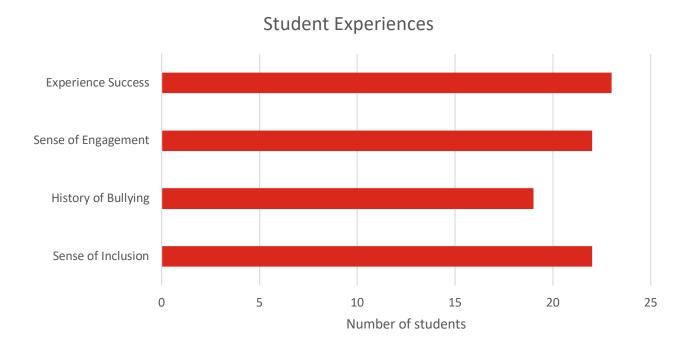


Figure 18. Experiences at Big Picture Learning for students with disability.

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This contrasted with the sense of inclusion experienced by almost all students in BPL - "no one is excluded". Students feel accepted and demonstrate a genuine concern for each other, receiving encouragement when they need it, and are more inclined to participate and talk openly about themselves and their work - "I have real friends now – I've lived my whole life with bullying. A lot of arguments make it hard to work and fighting back has affected my reputation. I am a kind person in reality and I can be that now". Contributing in the advisory enables students to mature socially. The advisory is considered a "family gathering spot" - one student commented on the affirmation he felt the first time other students noticed he was missing from the advisory. Many students were struggling with various aspects of their learning and assessment in mainstream. As a result, they found themselves developing poor behaviours and losing interest in their education. Almost all students have experienced an improved sense of engagement since joining BPL - "I have a new outlook on learning". In many cases, students appreciated a

calm, relaxed, quiet environment where everyone

is motivated by their personal interests and enjoys learning - "Big Picture is the perfect fit for my natural learning cycle - find a topic, investigate, go down a rabbit hole, realise your goal and keep going or move on". BPL provides clear instructions, choice, and opportunities - "You are responsible for your learning, so you actually think about it and do more work, and so develop more individual skills that are beneficial. You don't procrastinate because you enjoy it". The flexibility of the Design allows students to make adjustments to their learning environment if required and take ownership of their designated learning space. Students also appreciate the communal meeting table where they can gather with their advisory and share ideas and experiences. Advisors provide guidance and resources, and students appreciated the ongoing awareness of their learning and personal needs, rather than necessitating the reminding of teachers or repeating requirements -"they really know who I am".

When students were asked about the challenges they face, a number of students stated the main challenges they faced occurred prior to

joining BPL. Difficulties associated with anxiety, assessments, bullying and "things people couldn't see" were no longer problematic in the BPL setting. Problems in mainstream were widespread and diverse – experiencing panic attacks due to the noise in mainstream classrooms which can be overwhelming for students with sensory issues, being bullied for scars from self-harming, having to act in a certain way to fit in, lack of consideration or understanding of mental health issues, and not receiving support while experiencing problems at home. Advisories provide a safe and tolerant environment, where like-minded students trust each other and can escape the "big, loud, cruel, harsh, angry world". "In mainstream you have to act a certain way. If you don't fit the mould, you stand out and get bullied. Now I am removed from the words, actions and ignorance of mainstream". In addition, BPL encourages students to persevere and take responsibility where often they would "previously blame others when things went wrong".

Some students expressed concern with time management and building social and communication skills to improve confidence in public speaking and the organisation of, and participation in, internships. However, often these challenges were seen as opportunities to learn and improve. Main sources of support were various family members and advisors.

2. Learning outcomes

All students with disability in BPL report experiencing academic growth since joining BPL. Most advisors confirm this to be the case for their students, as do parents for their child. This academic growth is associated with enhanced learning outcomes arising from improved engagement, positive work ethic, increased interest in learning content, undertaking of meaningful learning tasks, individual learning needs being effectively met, and experiencing success.

Students in BPL demonstrate independence, involvement and curiosity in their learning. BPL students report an improvement in wellbeing

corresponding to improved academic performance. This is in contrast to the negative correlation between wellbeing and academic performance reported in research undertaken in mainstream settings (OECD, 2019). As one student conveyed, "we prioritise learning over school". A frequent comment from students related to learning difficulties in mainstream was that instruction moved on even when they didn't understand the content. Students were reluctant to ask for help and fell further behind as a result.

In many cases, improvements in learning outcomes for students in BPL need to be considered on a relative rather than absolute basis. For example, a student with dyslexia was enrolled in BPL in Year 9 with a reading level of 8 years. Currently in Year 11, the student has progressed to a reading level of 12 years and 10 months – this indicates an improvement in reading of almost 5 years in only 2 years. This improvement has been attributed to the lure to read material aligned with their interests.

3. Internships

Participation in internships and out-learning experiences enable students to explore interests and investigate different pathways as interests change. This allows students to use what they learn and focus on their future earlier, providing a 'foot in the door' to further education, training, or employment. Although organising internships can sometimes be challenging for students, they recognised the support from advisors in creating contacts, and assistance developing relationships with mentors and attending workplaces. These relationships with adults in the wider community are an integral component of outlearning experiences and have been shown to be a strong indicator of future success.

As previously mentioned, a destination study was conducted in 2020 for students leaving BPL. A total of 171 students participated in this study, providing additional data which further illustrates the successful transitions made by students with disability.

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Students leaving Big Picture Learning (n=171 students)

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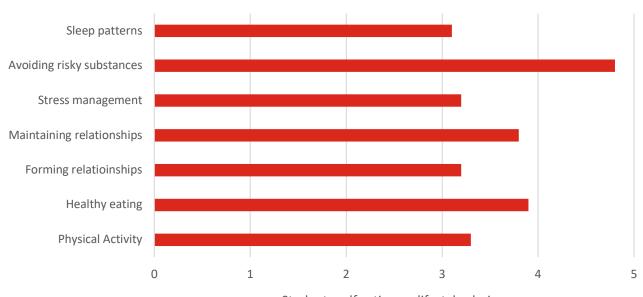
- 24% of students leaving BPL had a disability, compared with disability provisions applications for 9.8% of students in NSW government funded public schools (NESA, 2021)
- 58.5% of these students were leaving because they graduated Year 12
- Only one student with disability left school without graduating Year 12 and/ or moving on to employment or further study, compared with 8.2% of Year 12 completers and 20.9% of early school leavers in NSW (CESE, 2019)
- 75% of students with disability participated in internships, compared to 64% of students without disability.
- 2020 Big Picture Learning Year 12 Graduates (n=70 students)
 - · 31% had a diagnosed disability
 - · Of those students with disability,20%

- went on to employment, 25% to university, 20% to TAFE and 20% to other training providers (compared to 33%, 28%, 26% and 9% respectively for students without disability)
- 100% of students with disability stated their destination was linked to their interests explored at BPL.
- 2020 Big Picture Learning Graduates awarded IBPLC (n=29 students)
 - 24% of students graduating with the IBPLC had a diagnosed disability
 - 100% of students received entry to their first choice of university and course.

4. Success

All students stated that they experience success in BPL. Students' enjoyment of school comes from growing confidence and pride in their transformation – improved attendance, overcoming setbacks, accomplishing goals on time, receiving positive feedback, producing quality work, and feeling a sense of self-worth:

Students current self-rating of Big Picture Living measures



Students self-rating on lifestyle choices 1=poor; 2=fair; 3=neutral; 4=good; 5=excellent

Figure 19. Self-reported ratings of measures in Big Picture Living initiative for students with disability.

- "It used to be 'that's good enough'. Now I edit and polish to a mirror finish"
- "All these things I didn't think were a possibility when I was in mainstream"
- "I am very organised and made progress so I can now help others as well".

Big Picture Living

Environmental factors have been shown to impact student wellbeing, so it is important to encourage students to participate in health promotion activities such as Big Picture Living. This section of the case study provides encouraging insight into the healthy lifestyle choices of students with disability in BPL. The students' self-evaluation of Big Picture Living measures relating to exercise, eating, relationships, stress, risky substances and sleep were all in the upper range of scores.

Particularly reassuring is the tendency for students to avoid the use of risky substances. Students often reported they previously participated in drug and alcohol use, but no longer felt the need and were more mindful of the impact of

these substances on their health and/or their medications.

Students also scored highly for healthy eating, with only 12.5% of students reporting they did not eatbreakfast, only 16.5% of students reporting they did not pack their lunch from home and half of the students eating 'junk food' less than three times per week. The number of hours per week students engage in physical activity varied from 0 to more than 10 hours. Students reported this changed depending on the season (when they played team sports) or time of year (when they did school sport during term). For some students, physical activity and exercise were difficult due to their disability or associated medical conditions. All of those who did exercise stated they enjoyed it.

Over 90% of students reported feeling stressed, and over 30% of these students reported feeling stressed often. Importantly, all students had strategies in place to manage their stress – most commonly speaking to someone, using relaxation techniques such as mindfulness, meditation and breathing exercises, exercising, writing in a

How Well Are We Going?

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Number of hours sleep reported by students

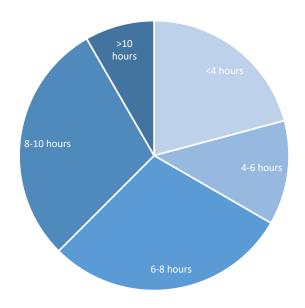


Figure 20. Numbers of hours sleep reported by students with disability

journal, or finding a distraction such as listening to music. Sometimes it was just a matter of "allowing myself to feel stressed". Students often engage in personal development and wellbeing activities such as meditation and mindfulness in their advisory. The regular practice of such activities was seen to have a positive impact on the overall quality of the day's experiences.

Forming relationships was shown to still be difficult for some students (15%). Students expressed growing confidence and desire to form relationships since joining BPL. All students stated they now enjoyed maintaining relationships they had established, primarily because of the sense of belonging experienced in their advisory.

Sleep patterns are often cause for concern amongst adolescents. Research states that adolescents require between 8-10 hours sleep every night, and most teenagers only have between 6½ and 7½ hours per night, with many having much less (Department of Health, 2020).

Chronic sleep deprivation is of concern as it can have detrimental effects on daily functioning,

academic performance, and mental wellbeing. Half of the students interviewed reported they did not "wake up feeling refreshed". This suggests a need for increasing awareness of the importance of sleep; informing students of the causes and effects of sleep deprivation and providing them with strategies to improve their sleep patterns.

Wellbeing Study

This DASS-21 questionnaire requires responses relating to the previous week. The sum of the scores for the depression, anxiety and stress scales can be added together to obtain a total DASS score indicative of the state of generalised psychological distress (DASS-21 is not a trait measure). Total scores >30 have been labelled as "high" or "severe" (adapted from Lovibond & Lovibond, 1995). The average total score from the students participating in the interviews was 22.5 indicating low levels of generalised psychological distress. Scores for each of the scales indicate, on average, mild levels of depression, mild levels of stress and severe levels of anxiety. For each of these measures, almost 40% of students scored in the normal range, and almost 80% scored in the normal - mild - moderate range overall (see Appendix E). It is important to note that this scale is a quantitative measure, not a categorical measure of clinical diagnoses. Labels describe the full range of scores for the population - "mild" means the person is above the population mean, it does not mean they have a mild level of the disorder

Importantly, many students reported responses would have been very different prior to joining BPL and reflecting on these concepts made them mindful of the progress they had made.

Video Evidence

<u>Video evidence</u> of students experiences in BPL schools and academies was filmed and edited by Joanne Pettit – Communications, Resource Design and Projects Leader for Big Picture Learning Australia.

Discussion

The findings in this research support literature related to how to best support engagement, inclusion, and transitions for students with disability. Overall, results indicate little difference in attendance, engagement, inclusion, learning outcomes and transitions between students with and without disability in BPL. The Design creates a sense of belonging and a sense of purpose. The barriers to academic and social growth and wellbeing experienced by students with disability in mainstream settings are not evident for students with disability enrolled in BPL.

Many students entering BPL are considered 'at risk' prior to enrolling in BPL. This risk may be associated with the negative learning experiences of students with disabilities in mainstream but may also be a result of family circumstances, bullying, specific areas of student interest not addressed in mainstream schooling or poor choices associated with wellness. This is where "each student is unique, but not on their own" is particularly relevant. The wellbeing of all students needs to be addressed to minimise potential mental health issues which may or may not accompany other disabilities. The mental health of adolescents has declined in recent years and this study demonstrates that the Design accommodates students with poor mental health, and in many cases actually improves the wellbeing of students (for example, by removal of anxiety triggers such as exams) Student #19: "I was off school for the whole of Year 8 with anxiety. With support from my advisor, I do not experience anxiety now"; Student #20: "I was previously having 4-5 panic attacks per week. BPL supports students with mental health issues and I have reduced my medication". This occurs alongside a reduction in behavioural issues, particularly for students with disability.

This research indicates that the proportion of students with disability enrolled in BPL is over 2½

times the rate at which students with disability enrolled in mainstream. This includes enrolments in Learning Support and Special Education units in mainstream available in some schools. The Learning Support and Special Education options available in these schools may or may not meet the needs of these students. BPL provides another option for these students. This is of particular importance for students who, for a variety of reasons (such as stigma, access or financial constraints), have not sought a formal diagnosis for disability or have not met eligibility requirements for Special Education or Learning Support. For those students in schools without Learning Support or Special Education units, BPL is the only option available for students with disability. BPL celebrates the 'different abilities' these students bring to the advisory. However, lower levels of adjustment are required for students with disability in BPL than the levels of adjustment indicated in data for students with disability in mainstream as a result of the personalised learning integral to the Design. Students with disability demonstrate improved attendance, and experience fewer negative incidents and suspensions compared to when they were enrolled in mainstream, and frequently when compared to students with disability currently enrolled in mainstream. It has been shown, so far, that students with disability in BPL remain at school until the completion of Year 12.

This study provides evidence of the Design fostering inclusion, improving engagement in learning, creating better learning outcomes, and facilitating effective transitions for students after school. The physical and mental wellbeing of students is promoted through positive and supportive relationships within advisories, safe environments for success and growth, development of student abilities to set and reach goals and students being 'seen' and treated as

valued contributors to their learning and learning environment. It has been shown that the Design effectively alleviates mental health symptoms and behavioural problems for some students.

Engagement:

Students engage in learning they genuinely value, not in learning they are told is important. Learning in BPL is energised because students are doing more of what interests them. Rather than using the curriculum to design learning, students' individual learning plans are plotted back to the curriculum. The Design allows early identification of interests and the potential to pursue these interests and create opportunities for the future. This makes learning meaningful for each student and provides a sense of purpose for students. For many, this simply means continuing an education pathway that would otherwise have been discontinued prematurely. According to Austrian psychiatrist and neurologist Viktor Frankl, author of "Man's Search for Meaning", we are ultimately driven by a need for meaning in our lives, and one way to achieve this is through doing or creating something significant. This meaning is a consequence of our circumstances, relationships, and experiences. When a person is engaged and sets goals, they have a sense of purpose; boredom and not feeling connected indicates an absence of meaning. Rising depression, aggression and addiction may be attributed to the boredom and the resultant lack of meaning experienced by many young people today (Frankl, 1985, p.166).

"A one unit increase in school engagement has been associated with a 13-point increase in academic performance" (Waters & Loton, 2017, p.2). Therefore, settings that support belonging and engagement are the most effective way to promote academic achievement (Dix, Kashfee, Carslake, Sniedze-Gregory, O'Grady, & Trevitt, 2020). Positive teacher-student relationships are considered to promote "engagement with and at school" (CESE, 2020, p.34). This also enhances school connectedness and a student's sense of belonging, and consequently, reduces mental

health issues. Engagement in learning is an inevitable consequence of truly inclusive learning environments.

Recent research shows COVID-19 and the associated online learning was particularly difficult for families and carers of children with disability (Chafouleas & Iovino, 2020). This was shown to be alleviated by strong, positive home school relationships and engagement in learning tasks. Furthermore, learning that is meaningful to students, such as that aligned with their interests and aspirations, can occur through experiences at home and "it doesn't slip away" (Kohn, 2020). These elements are integral to the BPL design. Research conducted by Big Picture Learning Australia found that the transition to online learning was effective for all BPL students and ensured that those students with disability were "not left behind in their learning" during the lockdown (Drane et al., 2020). BPL was able to provide effective ongoing support to students during these challenges as a result of the strong established relationships between advisors and their students.

Inclusion:

True inclusive practice does not require modifications to be made to accommodate the needs of all students. The educational design should inherently cater for the diverse needs and abilities of all students through authentic personalisation of learning and relationships. The research confirms the inclusive nature of the Design. All students are respected and valued for their unique abilities. Many students with disability enrolled in BPL did not feel that their needs were met, or their abilities were recognised in mainstream or special education settings. In fact, it may be argued that special education classrooms are a consequence of mainstream classrooms not effectively accommodating students with disability. Research shows that students with disability in inclusive classroom settings "make far more progress" and are more likely to complete postsecondary education (Graham & de Bruin, 2017).

Specific practices identified to foster inclusion in schools include minimising difficulties and supporting students experiencing difficulties, adapting to individual learning needs, providing opportunities for social participation and valuing all students equally (Booth & Ainscow, 1998). All of the principles and practices identified in the NSW Department of Education Statement (see Literature Review) are integral to successful inclusion of students with disability and are "built in" to the Big Picture Learning design.

Big Picture Learning highlights ability rather than diagnosis. It is not about being different, it is about being allowed to be different and accepted by others. Research regularly recommends interventions to "change attitudes and behaviours toward", and, "promote social integration of", students with disabilities (Roberts & Lindsell, 1997; Roberts & Smith, 1999). When differences between students are not conspicuous or emphasised, these interventions become redundant. Furthermore, an inclusive learning environment can better prepare students for real-world experiences and create an expectation to be valued and respected in the broader community.

Transitions:

The Review of Senior Secondary Pathways detailed eight key outcomes necessary for education to successfully prepare students for "active citizenship" in society and "purposeful engagement" in the labour market (Shergold, Calma, Russo, Walton, Westacott, Zoellner, & O'Rielly, 2020, p.12). These are:

- · essential skills
- a Learner Profile
- a range of equally respected school pathways
- information and resources to assist students with decision-making
- strong partnerships between schools and industry
- an Education Passport detailing qualifications

- skills, and experience within and beyond the school environment
- equal access and opportunity for success for all students
- · evidence based government policies.

The BPL design already comprises each of the outcomes listed above. It provides students with a head start in the process of transitioning to employment or further study after school and provides students with disability opportunities to properly prepare for this transition. Individualised support, similar to that provided by School Leaver Employment Support (SLES) through NDIS, is provided to BPL students with disability. This allows students to plan for their employment by making available travel training, time management, money training, work experience and following instructions while still at school. Personal interests are acknowledged and valued and a student's experience or diagnosis does not exclude them from opportunities to explore these.

The current mainstream focus on ATAR and academic achievement rather than preparing students for post-school success has a negative impact on student engagement and mental health (Shipley & Stubley, 2018). Poor mental health has been identified as a significant barrier to achieving post-school goals (Carlisle et al., 2019). Importantly, life-long outcomes related to general and mental health, health risk behaviours, employment, income and social isolation are currently more challenging for those with disability compared to those without disability. People with disability are also much more vulnerable to discrimination, violence and harassment (AIHW, 2019). Improving educational outcomes and providing post-school pathways for students with disability, such as those provided by BPL, is a key component in alleviating the increased risk of longterm disadvantage for those with disability.

The opportunity to research interests, investigate career options associated with interests, explore

future interests in the community and create connections with mentors in a chosen field is essential to facilitating smooth and successful transitions from school to further study or employment for students with disability. Almost all BPL students with disability have been shown to pursue post-school pathways related to their interests that were explored in BPL. This shows the importance of this opportunity being available for students with disability to provide some direction prior to leaving school. "My daughter at uni, who also did Big Picture Learning, notices how mainstream students are really struggling with uni as it is self-directed and motivated, she is finding uni life to be easier to handle due to her Big Picture pathway." - Parent, School D.

Out-learning experiences such as internships and enrolment in TAFE courses aligned with student interests allows students to trial a potential career path, gain credits for their future career and more effectively engage in their learning. Research suggests that school-mediated employer contact enhances student exposure to information, experiential learning and practical experience, and social networks relevant to their area of interest (Mann & Percy, 2014). Employer engagement in education has been shown to "make a genuine difference to attainment, progressions and the transitions young people must make between school, further education and into work" (Education and Employers Taskforce, 2011, cited in Mann & Glover, 2011, p.214). It enhances decision-making associated with career "aspirations and pathways" and can be viewed as a valuable "resource which allows young people to navigate transitions from school to work" (Mann, 2012, p.24).

Emerging Themes:

1. Wellbeing:

Personal Qualities is one of six Learning Goals in Big Picture Learning. Student wellbeing is built into the Design through relationships, passions and personal growth associated with this learning goal. The inclusion of the development of emotional aptitude shifts the focus from competition and cognitive growth central to traditional learning settings. Advisors consistently reported that what can be achieved in advisories is over and above what is possible with students in mainstream. They do not identify students according to disability labels. Students with disability, like all students, have particular needs, abilities, and interests that need to be considered in their learning environment. Social and emotional wellbeing is a key component of good mental health and overall wellbeing - this involves an emphasis on behavioural and emotional strengths, the ability to adapt and deal with daily challenges (resilience and coping skills) and the capacity to respond positively to adversity while leading a fulfilling life (AIHW 2012, in AIHW, 2020a, p. 122). A strong sense of self-worth and positive selfimage are important influences on an adolescent's confidence and experience of success. "Improving student wellbeing and building resilience are crucial in preventing and reducing the impact of mental health problems" (Dix, et al., 2020, p.1). The development of social and emotional skills supports the wellbeing of students, enabling them to 'flourish' by interacting effectively and experiencing positive emotions (Michaelson et al., 2012, p. 7). The awareness of, and practise of, strategies to promote wellbeing are deeply embedded in the Design. They are not "tacked on" as an afterthought, and this emphasis on self-care empowers students, particularly those with disability, to see themselves in a positive light (without comparison to others). They are less likely to fall victim to overpowering negative thoughts that underly many harmful behaviours and mental health problems for adolescents. Students understand the impact that developing personal qualities has on their overall wellbeing, and in turn, the benefits to their cognitive functioning. Wellbeing education is most effective when it is delivered by teachers who have a relationship with students (Dix et al., 2020). The strong and supportive relationship experienced by students with their advisor has been frequently referenced throughout this research. This places BPL advisors

in a favourable position to play a vital role in promoting student wellbeing through the Personal Qualities Learning Goal.

More specifically, research has identified a number of factors directly related to school, the school environment, and a student's relationship with school, that influence the wellbeing of adolescents. The following table lists a number of

these predictors, or pre-conditions, for wellbeing associated with school, linked directly to the philosophy of Big Picture Learning Australia.

The Big Picture Living initiative is another way for BPL students to monitor and improve environmental and lifestyle factors that influence their wellbeing. Research in epigenetics conducted by Associate Professor Divya Mehta has found that

 Table 12

 Predictors of wellbeing aligned with Big Picture Learning distinguishers and philosophy.

Significant predictors of Wellbeing	BPLA - Philosophy & Distinguishers
Creativity (Arshad & Rafique, 2016)	Programs unique for each student
Goal attainment (Smith, Ntoumanis & Duda, 2007) Evidence of continued growth	Progress measured against six learning goals
School connectedness (Patalay & Fitzsimons, 2018)	Collaboration and advisory groups
Support available (Chenfreau et al., 2008, 25)	Strong advisory relationships
Like school (Patalay & Fitzsimons, 2018)	Passions and interests at the centre of the learning process
Self-efficacy (Tong, & Song, 2004)	Course of study is personalized – one student at a time
Locus of Control (Trpcveska, 2017)	Student is an active participant in their education
Low stress levels (Trpcveska, 2017)	Personalisation: "one student at a time"
Academic stressors (assessment) (Trpcveska, 2017)** Pressure (Black & Martin, 2015, p.28)	Authentic assessment, work at own pace
Motivation (Kusurkar, Ten Cate, Van Asperen, & Croiset, 2011)	School-based learning focused on interests blended with outside experiences
Truanting (Black, & Martin, 2015)**	High attendance rates (94% on average)*
Exclusion from school (Black & Martin, 2015, p.30)	Few suspensions and expulsions
Post-school expectations (university, apprenticeships or work) (Kusurkar et al, 2011)	99% of graduates accepted into College*
Engagement at school (Kusurkar et al, 2011)	Personalised education programs based on student interest
Clubs, friends, hobbies, sports (Kusurkar et al, 2011)	Strong relationships in advisory and community
Parental support (Chenfreau et al., 2008)	Families are enrolled too
Strong associations with wider community (Chenfreau et al., 2008)	Works in partnership with the community – employers, mentors
Secure school environment (no bullying or disruptive behaviour) (Chenfreau et al., 2008)	Very low dropout rates (2% on average)*
Social relationships (Patalay & Fitzsimons, 2016)	Quality connections through strong, authentic relationships

^{*} Data from Big Picture Learning overseas communities

^{**} Negative association

"certain social and psychological factors...[such as] high levels of social support... connectedness and belongingness...[allow] individuals to cope much better with stress than those who remain socially isolated" (Taylor, 2021). The importance of social networks, diet, exercise and sleep can have a positive impact on mental health by inducing epigenetic changes. Furthermore, this sense of connectedness evident in quality relationships contributes to one's experience of being 'seen' and relieves any feelings of isolation. This is important as loneliness is "one of the strongest predictors of morbidity and mortality" (Kirmayer, 2021).

Education level is a significant predictor of future wellbeing (Cenfreau et al, 2008, p.25), highlighting the importance of school completion and effective transitions to further study and/or employment. This research has shown that the Design facilitates a return to school, completion of school and the transition to post-school study and employment for students with disability.

Big Picture Learning is a strengths-based design; trauma informed, culturally responsive, and relationship-based. Students are 'seen and heard'. This makes it possible for advisors to understand triggers for students and use preventive measures prior to incident escalation. Students are encouraged to explore alternative strategies to anger and violence which have not previously been modelled or discussed. This can account for significantly lower negative incidents and suspensions in BPL for all students, including those with disability. "I am getting better as a person every day".

Students consistently report gratitude for the opportunity for a 'fresh start'. Being part of BPL is considered a privilege. However, there is some variation in perceptions regarding BPL academies by students and teachers in mainstream. Academies operate more effectively, and students generally feel more comfortable, when they are considered favourably by others.

By addressing factors that have a detrimental effect on student mental health, as well as encouraging practices that improve wellbeing, the Design effectively contributes to the wellbeing of our most valuable resource. Wellbeing during school years, and the level of education subsequently achieved, have been shown to be significant predictors of future wellbeing (Murray-Harvery, 2010). In a sense, BPL may be considered to be future proofing an adolescents' wellbeing through positive educational experience. This positivity is crucial to achieving their goals.

2. Success:

What success 'looks like' varies from one individual to another. What is evident from this research is that many students with disability have experienced a sense of belonging in their learning environment and a love of learning for the first time. The diverse needs of students are met in the supportive, flexible advisory setting. They have been relieved from the subtle "microaggressions" or more deliberate bullying experienced in mainstream. When students demonstrate different abilities to the social and educational norms in mainstream schools, they receive messages of "invalidation, marginalisation and disenfranchisement". This limits the students' "ability to learn and creates feelings of isolation and invisibility" and that "they do not belong. Instead, BPL students receive considered and consistent "microaffirmations" which relieve students of feelings of personal responsibility for their inability to comply with conventional educational systems (Reimer & Longmuir, 2021). This improves their self-worth and enables them to engage in meaningful learning. Students in BPL are not rebuked for 'offences' committed in mainstream such as "sketching in my book" -Sage (Olumee, 2021) or "playing with my pens" - Caleb (Reimer & Longmuir, 2021). There is an "uncomplicated acceptance" and affirmation (Reimer & Longmuir, 2021) that comes from "genuine care and friendship" (Healy, 2021) such as that demonstrated in BPL advisories. Students are not limited by any label that identifies and



emphasises differences; perspectives are not influenced by judgements and assumptions which may be inaccurate and divisive. The validation that students experience prompts both academic and social growth and inspires students to continue learning.

3. Insight:

Reflective practice revealing a student's own perspective, such as that obtained through journal writing and open discussions, provides unique insights that can inform research (Patalay & Fitzsimons, 2018) and practice. Through reflective tasks, students are able to effectively articulate their strengths and challenges, understand their self-worth, and build their overall self-awareness.

Reflective practice is fundamental to the learning cycle. Students are encouraged to undertake a continuous process of 'prepare, act, reflect' in order to realise the high expectations required of them. This encourages and enables students to gain insight into their strengths and challenges at a deep level and effectively articulate these to gain the support they require from advisors and other mentors. The insight demonstrated by students provides the opportunity to understand their individual needs and contributes to the achievement of their personal goals. In addition,

the supportive learning environment enables constructive peer-to-peer feedback, where it is safe to make mistakes and contributions from every student are valued.

Furthermore, this insight provides students with a voice. It allows students to be actively involved in every stage of their learning in a genuinely personalised and valuable way. Students are further engaged as a result of their "involvement in decisions affecting them". (Department of Premier and Cabinet, 2006). Student voice being both sought and valued in BPL schools and academies empowers students in terms of learning, teaching, and assessment. Students experience a sense of control in decision making concerning their learning. The personal insight exhibited by students consequently increases their awareness of the world around them. The subsequent selfadvocacy is of particular importance for students with disability. Importantly, the Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability emphasises that the substantial knowledge, ideas and strategies of those with disability must be taken into account when considering how to best meet their needs (Attorney-General's Department, 2020).

Table 13
Summary of benefits afforded by the Design throughout the learning community.

Who?	How?
All students, with emphasis on those with disability	ONE CLASS, ONE ROOM, ONE ADVISOR
	Students remain in the same advisory of 17 students throughout their enrolment, providing stability and consistency, and minimising the need for adjustments required with teacher changes each period and each year
	Improved engagement
	Improved learning outcomes based on development of strengths, interests and abilities (rather than deficit strategy)
	Greater independence and responsibility for learning
	Provision of an alternative to the ATAR
	No normative frameworks or comparison to other students promoting personal growth in both social and academic spheres
	Inclusive practices
	Improved mental health and general wellbeing
	Modelling of positive learning behaviours from other students
	Creation of community contacts for establishing post-school pathways in advance of high school completion
	Inclusive practices
	Mentoring opportunities
	Diverse learning community
	High expectations
	Personalisation
	Encouragement of peer feedback
	Building of confidence (eg. through exhibitions)
Family	Enrolment and involvement of families in BPL – they are valued and essential members of the learning team
	Improved family experience providing information and support
	Regular scheduled involvement in Learning Plan design and exhibitions
Advisors	Smaller class sizes allow advisors to personalise learning and development of strong relationships with each student.
	Specialised teacher training equips advisors to adapt and implement BPL design effectively and creatively.
	Teachers from advisories are able to interact with other education specialists enabling collaborative teaching opportunities.
Community	Allowing access to students, including those with disability, through the "Learning through Internships" program
	Creating relationships and providing connections with mentors and employers in their area of interest

Teachings for Educational Community and Recommendations

If diagnoses rates and policy conditions remain constant, the student population with disability is expected to increase from between 110,000 -130,000 in 2017 to between 160,000 - 200,000 in 2027. Schools therefore need to prepare for a 50% rise in students with disability in the decade to 2027 (Boston Consulting Group cited in Baker, 2020). The BPL design currently supports students with disability, whether these students are funded or unfunded in the learning environment. The Design effectively incorporates student wellbeing, relationships and inclusion into curriculum and assessment. However, it is apparent that additional training and support should be made available for advisors of students with disability. According to the NSW Education Standards Authority, less than 20% of accredited teachers in NSW have participated in professional development for teaching students with disabilities between 2018 and 2020 (Fitzsimmons, 2020). Furthermore, it is essential to incorporate an advisor wellbeing and self-care focus so they can then support students and model effective strategies for students.

It is important to note that wellbeing has been identified as a key outcome of schooling in both the Melbourne Declaration of Educational Goals and the National Curriculum, and improving mental health is a national health priority. Central to wellbeing is a sense of belonging. Belonging has also been shown to be critical to mental health, school attendance and retention rates. Students who identify a positive connection to their school and strong positive relationships with their teachers, have supportive peers and parents, and develop their personal qualities are more likely to experience a sense of belonging (Allen, Kern, Waters, & Vella-Broderick, 2018). These factors are key elements of the Design and it is a reasonable expectation to consider this in future policy and

practice. It requires school leadership to define a successful student beyond a standardised score and understand that "encouraging school belonging does not come at the expense of academic achievement; in fact, it's the opposite, it helps" (Allen et al., 2018, p.5). A shift away from an emphasis on competition between students and the ATAR would enable student wellbeing to "be front and centre ahead of other curriculum priorities [and] we might just find ourselves on the path to the optimal environment for learning" (Variyan, 2021). Policy changes to ensure this are essential.

The Review of Senior Secondary Pathways into work, further education and training suggests "new approaches need to be trialled and, if successful, scaled up" (Shergold et al., 2020, p.12). This study has consulted widely, providing a statement of authority to inform schools and policy makers of how to optimise learning design for students with disability and share findings to inform mainstream practices. While Big Picture Learning is not a "silver bullet", this data has effectively determined the impact of the Design for students with a disability and provided the DoE with an enriched evidence base of the Design's effectiveness for students with disability. Students with disability do tend to perform better and stay at school longer compared to students with disability in mainstream classes. The potential of the Design to support students with disability suggests the need to adopt measures on a larger scale throughout NSW and across Australia: "More schools should do it because I know it would work for so many other students like me" (Student, School I). The BPL design challenges the mainstream perspective where "rules are valued above relationships and that performance is valued over compassion" (Reimer & Longmuir, 2021).

Big Picture Learning is now entering a phase of growing numbers of students graduating each year. The continued collection of destination data (which began in 2020) to track transitions of students with disability after they leave school will provide increasing evidence of the long-term benefits of the Design for students with disability in BPL. Of importance here is the growing shift away from the ATAR. Many students, including those with disability, feel their abilities, knowledge and skills are not accurately represented by a number. The IBPLC enables students to demonstrate and record their achievements more comprehensively. As Education Policy Consultant Megan O'Connell states, "one of the things we have learnt from the pandemic is that you can change really big systems, really quickly" (Black, 2021).

Furthermore, while this study demonstrates the effectiveness of the Design for students with disability, it also shows that the Design works well for ALL students in ALL schools in ALL settings. In BPL, the experiences reported by students with disability are similar to those reported by students without disability. This is not the case in mainstream settings. By comparison, many students in BPL consider that mainstream offers limited opportunities for a select few. Demographic data for BPL schools is varied - rural and urban settings, low SES, high academic achievers and students with non-academic interests and abilities. The demographic data from this research shows many students enrolled in BPL schools and academies are subject to multiple forms of disadvantage, so the Design has been shown to support equity issues in addition to those associated with disability. This could be explored further in future research.

This research supports the Distinguishers underpinning the BPL design. All of the principles and practices identified in the NSW Department of Education's 'Inclusive Education Statement for students with a disability' are integral to successful inclusion of students with disability and are 'built in' to the BPL design. Experts agree that a "major



cultural shift to Australia's education system" is required and the inclusive design should be offered to all students (Jarvis quoted in Olumee, 2021). The Design allows students to manage their own learning with the support of advisors and mentors. Students are given the opportunity to express their needs, and this voice is encouraged and valued. The what, where, when, how and why of learning is open, and personalised according to students' interests, capabilities, skills and circumstances. Student wellbeing should be central to policy related to transforming the system rather than attempts to build capacity in students to cope with a system detrimental to their wellbeing (Variyan, 2021).

"Big Picture – please let it be the way of our future education system" (Big Picture Learning parent).

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Appendices

Appendix A

Big Picture Learning Australia Distinguishers

The distinguishers are:

1. Academic rigour: Head, heart and hand

Big Picture schools have a strong intellectual purpose for each and every student. Students are continually challenged to deepen their learning and improve their performance across five learning goals: quantitative reasoning, empirical reasoning, social reasoning, communication skills and personal qualities. A high standard of academic work is expected of all students.

2. Leaving to learn: Learning through internships

Students work two days a week in an interest-based internship with a mentor from the community on an intellectually rigorous real-world project that is connected to their learning goals.

3. Personalisation: One student at a time

With the help of the advisory teacher and parents, each student develops a learning plan that explores their interests and passions, and identifies personal learning goals, authentic project work and wider curriculum requirements. This plan is reviewed and updated regularly.

4. Authentic assessment

Each term the students exhibit their portfolios of work to a panel made up of the advisory teacher, family, peers, the mentor, and others from the community. They provide evidence of progress against their learning goals and they reflect on the process of their learning.

5. Collaboration for learning

Students work in one-on-one or small group learning environments around their interests both inside and outside the school. Through internships, the community plays an integral role in the education of the students.

6. Learning in advisory

Students are in an advisory group of no more than 17 students and an advisory teacher. They stay in the same advisory for much of their secondary education. The advisory teacher manages each student's learning plan and ensures that all learning goals and the National Curriculum are covered.

7. Trust, respect and care

One of the striking things about Big Picture schools is the ease with which students interact with adults in both the school and the wider community. A culture of trust, respect and care is shared between students and adults, as well as among students themselves.

8. Everyone's a leader

In Big Picture Schools, leadership is shared among the principal, staff, students, family, and community partners. Opportunities for leadership are created for everyone.

9. Families are enrolled too

Big Picture schools aim for real family engagement. Parents or carers are regarded as essential members of the learning team, beginning with the application process and progressing through to learning plan development, exhibitions and graduation.

10. Creating futures

All students are expected to graduate from school to further learning. They are prepared for, and connected to, opportunities for learning at university and/or other further education.

11. Teachers and leaders are learners too

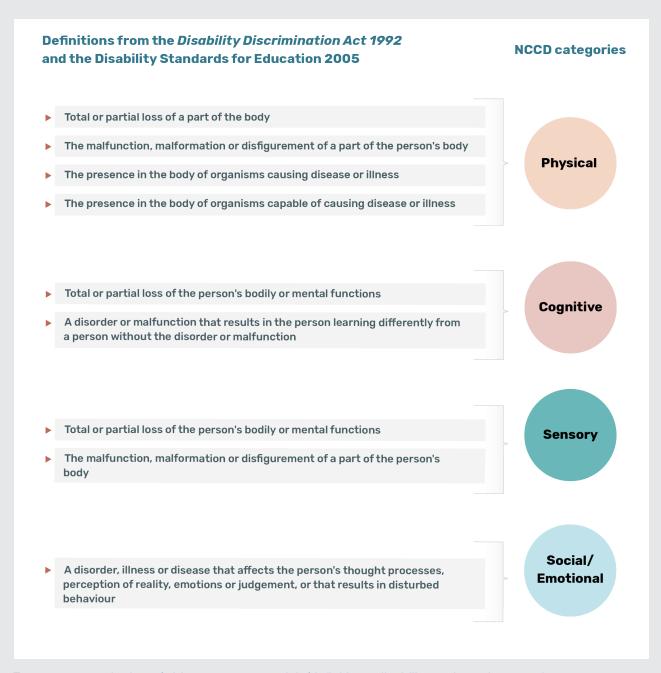
New ideas constantly emerge as part of the learning cycle process. Teachers and leaders in Big Picture schools and programs regularly attend to new ideas and learn new ways of working. They develop reflective practice and find ways of sharing this learning with others.

12. Diverse and enduring partnerships

A Big Picture School has a strong focus on building and creating external partnerships. These include partnerships with: the family, mentors, local councils, businesses, universities, TAFE colleges and other training providers. These partnerships give students the opportunities to pursue their learning and achieve their goals.

Appendix B

Broad categories of disability used in the NCCD



From: www.nccd.edu.au/wider-support-materials/definitions-disability-and-nccd-categories

Appendix C

School J: Data and Analysis

Table C1

Quantitative data for School J.

All classes in Years 9-12 are Big Picture Learning advisories so comparison with mainstream data within these years at School J are not possible.

2020	BPL	With Disability
Enrolment	506	
Attendance %	87.4	
2021	BPL	With Disability
	DI L	VVICII DISABIlity
Enrolment	220	33/220 (15%)

^{*} Use approved leave rather than suspensions – meet with parents and return with plan.

Concerns associated with supporting students with additional learning support relate to:

- The demands placed on advisors to provide support and manage adjustments for students,
- · Enrolled students not disclosing disability for fear of not being accepted,
- Enrolled students not being previously diagnosed due to lack of support to identify additional needs,
- Ensuring students needing additional support do not "fall through the cracks" by not asking for help following negative experiences in mainstream.

Advisor survey

A total of 3 (from a possible 11) advisors responded to the survey. The low number of responses makes it difficult to draw reliable conclusions regarding advisor experiences and advisor perceptions of student experiences. Presented here as an alternative is an overview of the responses made.

Advisors stated that they were drawn to BPL as the passion-based learning presented a great way for students to engage in a different pathway to the HSC. All advisors felt that BPL accommodated students with disability more effectively, and there was more family involvement than in their previous mainstream teaching role. Advisors felt they know their students well in terms of strengths and challenges, wellbeing and aspirations, and that BPL prepares students well for life after school by encouraging self-drive, self-awareness and real-world experiences. One advisor recommended continued instruction across KLA's was vital.

The advisors identified six students with disability across their advisories (Learning disabilities, ADHD, PTSD, dyslexia, anxiety). All students with disability had participated in internships, either in the community or within the school. Students with and without disability were reported to connect well with each other. Advisors reported that students with disability experienced improved inclusion and demonstrated improved engagement, better behaviour, greater confidence and enhanced management of their disability since

^{**} School yet to have a graduating year

joining BPL. It was felt this was primarily due to one-on-one support provided by advisors, positive social interactions in the advisory, provision of peer-to-peer learning tasks and the opportunity to work on their interests at their own pace. They considered it essential for students in BPL to be able to work independently, regardless of whether they had a disability or not. Advisors emphasised the importance of openly and honestly discussing individual differences and the varied abilities of those within the advisory. Advisors considered that they received sufficient support to work effectively with students with disability, whilst also acknowledging any additional resources and support from the school would be beneficial.

Student survey

A total of 15 students from an enrolment of 220 responded to the survey. Again, the number of responses makes it difficult to draw reliable conclusions regarding student experiences. All students were from Year 11 and 4 had a diagnosed disability (ADHD, PTSD, Asperger's Syndrome and Dyslexia). These students all stated that the disability impacted their classroom learning. All students responded that the transition

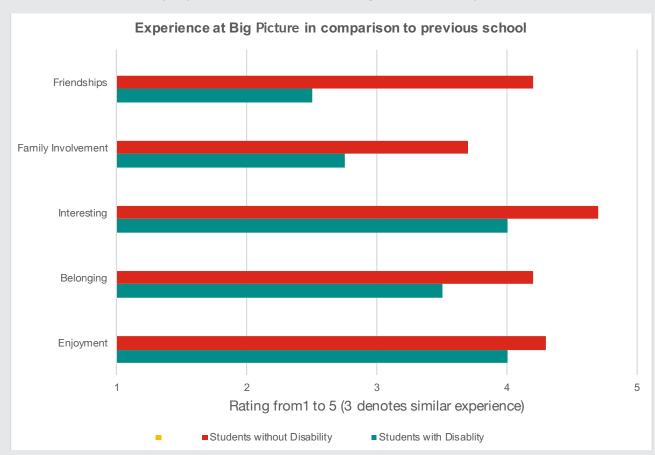


Figure C1. Student experiences at Big Picture Learning compared to their experiences at their previous school – for students with disability and students without disability.

to BPL did not present any particular difficulties. Students primarily made the transition to BPL to pursue social and learning opportunities not available in mainstream.

The graph above represents students' ratings of their experiences in a number of areas at BPL in comparison to their previous school. The ratings for students with disability were lower than for students



Figure C2. Student personal and learning transformations since joining Big Picture Learning – for students with disability and students without disability.

without disability in all areas, with ratings of family involvement and friendships being lower than their previous school. It is important to again note here only four students with disability responded to the survey, so the data is not necessarily indicative of the student population as a whole.

For students without disability, all responded positively to the personal and learning transformations indicated in the graph above.

Academic Growth:

- "I am more confident to speak about topics of interest",
- "I have learnt a lot about myself",
- "I am more aware of how the world works",
- "I have grown in my outlook towards the future".

Social Growth:

- "Big Picture pushed me to find connections and connect with different people",
- "Internships give me confidence speaking with people who share the same interests"

- "I find it easier to have harder conversations",
- "I have learnt how to listen and give my opinion respectfully".

Advisory:

- "I have had the same advisor for three years and we have connected really well"
- "My advisor brings joy to our advisory every day with support of all of our interests".

For students with disability, all responded positively to most questions:

- "I was shy and insecure before Big Picture",
- "I am comfortable with my advisory, everyone is caring and kind",

"It helps give me the knowledge I need to succeed in the field I want to enter in the future, and it also helps me get a feel of what the workplace feels like",

One student had reservations regarding their personal growth (socially and academically), relationships (advisor and peers) and confidence achieving their goals. Two of the four respondents stated they felt "better in general" since joining BPL.

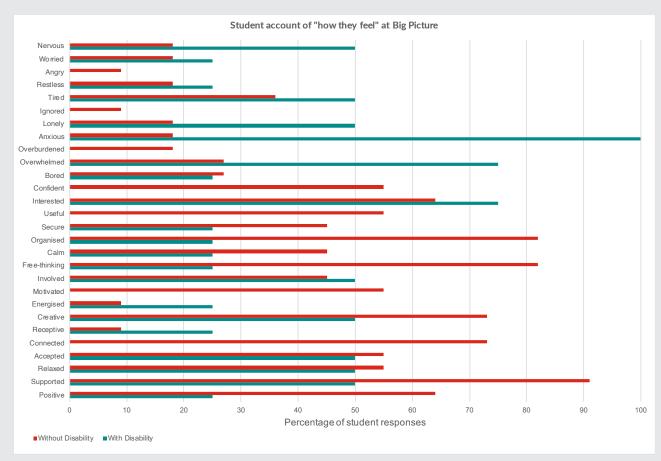


Figure C3. Student accounts of "how they feel" at Big Picture Learning - for students with disability and students without disability.

"I have the opportunity to learn more but disruptions make it difficult to finish work",

All students stated the importance of internships, outlearning experiences, and personal interest projects to pursue their passions, apply their learning in the real world and prepare for life after school. Students indicated they had a clear pathway planned upon graduating from BPL. Most students expressed interest in going to university.

Figure C3 presents student responses to "how they feel" at BPL. Positive emotions are more dominant amongst students without disability and negative emotions are more dominant amongst students with disability. Importantly, students consistently reported they would not be succeeding as they are if not for BPL:

- "I would be very sick of school",
- "I would be crying in normal school",
- "Bored",
- "Not happy",
- "I think I'd be struggling in a HSC program and unsure of my future. Honestly, I think I'd drop out",
- "In school failing or dropping out", and
- "I would be stuck with a job I dislike throughout adulthood".

Parent survey

A total of 60 parents responded to the survey. Of the respondents, six had a child with disability (ADHD, epilepsy, ASD, dyslexia). Again, the sample size of parents of students with disability is too small to draw conclusions and so an overview of responses will be provided.

Students joined BPL in most cases because parents felt the Design was more suited to their child. Additional reasons given at this school were specifically related to finding an alternative to the HSC and/or because their child was enrolled in the school for sport and wanted to continue the same path.

- "I think the Big Picture is the answer to many parents' dilemma about their child doing the HSC. If my child had of followed the HSC path, he definitely wouldn't still be in school",
- "Highly motivated to pursue her passion, much calmer than she would be pursuing ridiculous ATARs, opportunity to pursue her goal where she would not have been able to if she was doing ATAR. A knowing that she is working for herself not some unknown hierarchy, makes her more encouraging to others to follow her passion. She loves school".
- "I like the idea that Big Picture is for the child not the education departments' numbers",

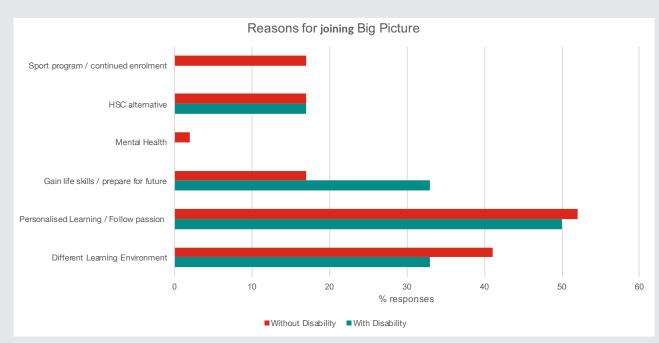


Figure C4. Reasons for joining Big Picture Learning from parent responses - for students with disability and students without disability.

"I would love to see this offered in more schools as I believe this provides a clearer picture of what a student knows rather than an exam on one day over 4 years of study".

In contrast to parents of children in BPL academies within government schools, school refusal / trouble in mainstream and bullying / new start / didn't fit mainstream were not associated with the move to BPL.

93% of parents considered the needs of their child were being met. Parents reported the Design was helping their child engage with their learning, explore their interests, manage their time, set and pursue personal goals, and prepare for their future.

"Working on his own, learning to deliver a project on time and how to improve each time in areas he needs to further develop. It helps him grow in areas that will benefit him in the future",

"Big Picture Learning has given her the opportunity to not only pursue her interests but to be supported and encouraged to change paths if her individual interests/passions change. In turn this has helped a normally anxious young adult the independence to make confident decisions about her future and what that could look like. The ability to participate in internships has also given her the confidence to look forward to her future in the big world once she finishes school at the end of this year",

"Reading and writing, improved maths, maturity, working autonomously, studying topics of interest and working toward after school goals",

"The interest based learning and self-paced is perfect for all skill levels. It creates an environment for students to be individuals".

He has identified what he is passionate about regarding work through having the chance to try

it in a real job. This has then led him to realise what he needs to learn to get ahead and is finally enjoying learning as he sees that it has a purpose",

"My child is engaged in her learning, and she is happy to go to school every day",

"Big Picture Learning is challenging yet rewarding for my child. She loves to explore, inquire, and evaluate topics. It has provided this opportunity for her. She was not sure what she wanted to do in her future, Big Picture has enabled her to explore what she 'thought' she wanted to do and lead her in a completely different direction. This would not have happened in mainstream learning",

"Life learning, accountability, self-awareness".

Four parents (all parents of students without disability) commented on the needs of their child not being met by the Design.

- "This program does not belong in an accredited (HSC) high school",
- "My son is not really engaged, he needs more guidance and follow up",
- "There are too many subjects not explored in Big Picture, and no HSC will prevent her future job selection",
- "My son is not learning anything of an academic nature. The program is failing to teach essential needs (History, Science, etc). If children are at school, they should be taught. It is a cop out by the teachers who should be teaching".

Additional concerns related to sporting schedules:

- "I'm not impressed that the school decided to reduce sport time from two hours a day to less without consultation of the parents. It is a sports school after all, and sport should be the focus".
- "I do not agree with all the days away from College and paying the same fees [son] can be out working 1 day every week and mid-term breaks and Big Picture meetings leaving him not there up to 18 days a term and missing all the Football training which is what we are paying for".

Several parents commented further on the need for more "traditional" literacy and numeracy, and academic rigour. Some parents also commented on a lack of direction or confusion around what is required, referring to "three advisors over two years, and two of those without any experience in Big Picture" and "teachers with a specific skill set in one or two areas only" as possible reasons. Conversely, some parents expressed dissatisfaction with recent changes to the syllabus "and the school has introduced PDHPE, Science and I now have my child studying William Shakespeare (absolute waste of time). This is not what I signed my child up for and leaves her no time to complete her BPL project. There was no consultation from the school as to why they are now going mainstream. It would appear that the school is now jumping through mainstream hoops to secure funding. Very disappointing." Another commented: "Since starting Big Picture Learning my children have been much happier and enjoy going to school. This has changed recently with

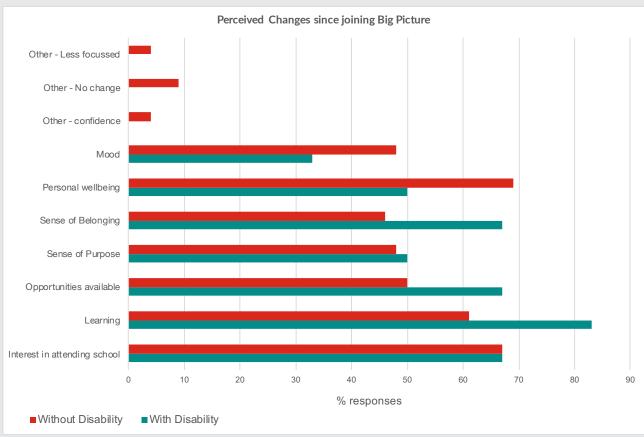


Figure C5. Perceived changes in their child since joining Big Picture Learning from parent responses - for students with disability and students without disability.

the introduction of mainstream topics and assignments given from different teachers completely unaware of other class commitments".

All parents of students with disability stated they believed the needs of their child were being met.

- "The pressure of exams and tests on work that my child has no interest in was leading to school refusal",
- "He is really enjoying being responsible for what and how he learns",
- "Real life interactions through internships",
- "She is able to work at her own level and feel in control of her learning",
- "They are happy, challenged, motivated and take responsibility".

Those parents that stated their child was less focussed suggested their children were often "slackening off" and "should be pushed a bit harder".

The most common sentiment was the improved interest in attending school since starting BPL. Parents frequently indicated their child expressed increased confidence in their own potential and not "being left behind in class".

"My child always hated going to school and felt that he wasn't as smart as the others when doing work. He couldn't concentrate on his work and didn't have any interest in what was being taught. Since starting Big Picture, I definitely don't have to hound him to go to school to the degree that I use to, he is with like-minded other students, he is enthusiastic about opportunities that have arisen and is generally a much happier person",

"My son was disengaged in his learning, had no self-confidence as far as being a successful learner. However, since joining Big Picture this has changed and he is now aiming to attend university to gain a degree in his area of interest",

"When my son started Big Picture, we had some real concerns that he was not going to cope with the structure and need to be an independent learner. His first two terms were extremely challenging for him, and his exhibitions were of limited standard. However, the improvement since and his determination to improve has been inspiring. We are extremely proud of the progress he has made and support he receives from his teachers. He loves going to a school and never wants to miss a day. Overall, his self confidence in his learning has improved 100%",

"It is the first time in all of his school years that I have actually heard him say that he enjoys schools and likes his teachers. This is a massive turn around!".

Specifically, from parents of children with disability:

"I feel my son would have dropped out of school in year 10 if he were to stick with traditional studies",

"It takes almost 2 hours for her to get to school and not once has she said she didn't want to go",

"The options now seem endless as everything is possible".

It appears in this case there is a need for more information to be provided to parents concerning expectations around the Design itself. Information regarding not only the Design itself, but the IBPLC and learner profile, and the opportunities these present for students upon graduation, would alleviate common parent sentiments of feeling "a little in the dark":

"As a parent it is still concerning how students can make it into universities",

"I think it is important to put the teachers through some form of formal Big Picture training before placing them in a classroom. I believe there should be time set aside each day for more

structured lessons focusing on maths and english and I think the advisors should be more proactive in helping students find and secure LTI placements",

"There needs to be a document at graduation that shows their accomplishments that an employer can relate to".

Many parents reported the connection between improved wellbeing being reflected in their child's learning: "Enjoying the structure and learning environment therefore a happier child which reflects in his work".

And to conclude with sentiments shared by two parents that are representative of many collective comments from others:

"The Big Picture program is a wonderful opportunity for students to gain real knowledge and experience in a field of their chosen career. It allowed my daughter to thrive and excel in gaining this knowledge, not being forced to win and feel hopeless while she attempted to complete the HSC. If she continued down that path, I feel she would be packing shelves ... right now rather than working in the film industry. All schools should give students the choice to complete HSC or find a different pathway to their future by completing the Big Picture program",

"I'd like to commend the staff of [School J]. I've found them to be really accommodating, supportive, willing to meet / discuss things when needed and the level of respect and engagement they have with students, just simply treating them like adults is outstanding. I've also been really impressed with the way those I have met with engage with my son and he has had really practical and great advice. We could not be happier! Cannot wait for my 2nd son to join the school (just received an offer which he is very excited about). Congratulations on what you are doing. We tell everyone we get the chance to".

Appendix D

Table D1.

Level of adjustment for students in NCCD

School	% students with additional needs identified in NCCD	% students with additional needs incl. those not identified in NCCD	Level of adju				
(Advisor responses)			Extensive	Substantial	Supplementary	Quality Differentiated Teaching Practice	Not Specified
School A (2/2)	4/27>14.8%	9/27> 33.3%		2	1	1	
Whole school	81/621> 13%		12	50	2		17
School B (4/8)	47/142>33.1%	76/142>53.5%		8	27	9	3
Whole School	189/1151>16.4%		2	54	68	44	21
School C (6/6)	15/121>12.4%	81/121>66.9%	1	4	9		1
Whole School	51/171>30%			21	12	3	15
School D (2/4)	8/73> 11%	14/73>19.2%		1	5	2	
Whole School	169/892>18.9%		28	56	85		
School E (3/3)	39/51>76.5%	44/51>86.3%		16	16	6	1
Whole School	344/761>42.5%			69	112	163	
School F (1/3)	9/69>13%	11/69>15.9%		1		8	
Whole School	170/872>19.5%		18	39	36	56	21
School G (2/3)	1/44>2.3%	17/44>38.6%			1		
Whole School	16/475>3.4%			3	12		1
School H (3/4)	7/68>10.3%	24/68>35.3%	1		4	2	
Whole School	33/715>4.6%			8	5	17	3
School I (2/2)	11/27>40.7%	23/27>85.2%			8	3	
Whole School	154/1146>13.4%		12	35	85	4	18
School J (3/11)	33/220>15%						

Table D2.Disability categories of students in NCCD.

School	Primary Disability				Other Disabilities				
(Advisor responses)	Cognitive	Sensory	Social Emotional	Physical	Not Specified	Cognitive	Sensory	Social Emotional	Physical
School A (2/2)	1(1)		3(4)			1		1(1)	
Whole school	25	2	36	1	17	11	3	9	2
School B (4/8)	11(6)		32(23)	1	3	6(2)	0	7(7)	1
Whole School	81	2	62	23	21	17	0	12	6
School C (6/6)	1(15)	1(2)	11(49)	1	1	(18)	(5)	1(12)	
Whole School	3	1	32		15			1	
School D (2/4)	3(2)		5(4)			2	(2)	(1)	
Whole School	84	1	79	5		47	4	30	1
School E (3/3)	10(1)	(1)	28(3)	1					
Whole School	207	3	130	4					
School F (1/3)	6(1)		3(1)			(1)		(1)	
Whole School	72	6	58	13	21	20	13	34	3
School G (2/3)	(8)		1(8)				1	(5)	(2)
Whole School	9		5	1	1	4	3	3	1
School H (3/4)	2(8)	(1)	4(8)	1		1	1(1)	1(8)	
Whole School					33				
School I (2/2)	3(3)	(2)	8(7)			(1)		(2)	
Whole School	51	8	70	7	18				
School J (3/11)	2	6	25					2	

Appendix E

Breakdown of DASS-21 data

	Depression			Anxiety*			Stress**		
	Score	N	% ppts	Score	N	%ppts	Score	N	%ppts
NORMAL	0-4	9	39%	0-3	9	39%	0-7	9	39%
MILD	5-6	2	8.7%	4-5	2	8.7%	8-9	2	8.7%
MODERATE	7-10	7	30.4%	6-7	7	30.4%	10-12	7	30.4%
SEVERE	11-13	2	8.7%	8-9	2	8.7%	13-16	2	8.7%
EXTREMELY SEVERE	14+	3	13%	10+	3	13%	17+	3	13%
Average Score		6.9	mild		8	severe		8.3	mild

N=23

^{*} Symptoms of psychological arousal ** Cognitive subjective symptoms of anxiety



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This research was conducted by Big Picture Learning Australia. BPLA acknowledges and is thankful for funding from The NSW Department of Education that made this possible.