Research for NSW Public Education
A Guide to Our Evidence Needs

Table of contents

Audience for this document

The audience for this document is the broad research community, defined as researchers and evaluators who work in universities, institutes, education settings, the NSW Department of Education (the department) and across government.

This document is targeted to those researchers who are interested in creating and translating quality research that supports education practice, programs and policy, now and into the future.

Synopsis

Five steps to assist researchers to align their work with our evidence needs:

1. **Review this guide to understand our research needs.**
2. **Consider if your research portfolio is aligned with our research needs.** Does your research topic align directly with one of the identified research focus areas in this guide? (Refer to Part 3)
3. **Confirm value of your research idea.** Does your research topic address a gap in the existing evidence, extend knowledge and/or avoid duplication with what we already know and other research projects underway?
4. **Check your research methodology.** Does your proposed methodological approach align with our preferences? (Refer to Part 4 and Appendix 2)
5. **Partnership opportunities. Have you identified a research funding source?** Are you seeking department involvement on this project or a related research grant proposal?

The department also recommends that researchers contact us for a general conversation about your research. If you wish to explore partnering with us on your project, contact research.partnerships@det.nsw.edu.au to discuss whether the research aligns with our identified priorities and the extent to which we can partner with you. The department will not be in a position to support or partner on all applications we receive, and will prioritise our support to those applications that align most strongly with our research priorities.

It is strongly advised that you start a dialogue with us about a potential partnership as you design your project, even if you have been awarded a tender or grant by the department.

Part 1: Rationale

This document was developed to inform departmental research activity and investment, as well as the education research community's activity.

Informing the department's research activity and investment

The research evidence needs set out in this guide will be used to inform the department's research activity and investment, now and into the future, so it can:

- **support our teachers and educators on the ground** with high-quality research evidence that is meaningful and relevant to their practice

- **minimise research participation burden** on teachers, educators, students and school staff

- **target** internal and external **research resources** (financial and in-kind) towards research that addresses both current and future challenges

- **leverage internal department expertise**, data assets, research services, and repositories and resources, to maximise research capacity and outcomes

- **collaborate effectively** with other NSW Government agencies, universities, research centres, and other organisations on research in areas of mutual interest

- encourage researchers, postgraduate students, teachers and educators in the system, and department staff to **investigate critical areas of relevance** to education in NSW.

Would you like to partner with us on this research project?

Thanks, I'll review it against our research priorities to see if it will help us achieve our goals.

Informing the research community's activity and investment

From the department's perspective, this guide outlines our evidence needs across all educational settings in NSW and has the goal of informing the education research community's activity and investment, now and into the future. The guide aims to:

- acknowledge research as one of several enablers to support us to **create an outstanding and equitable education system** in NSW

- articulate **where we need evidence to inform and support** the design and implementation of the education system, practice, programs and policy now and into the future

- signal to the education research sector where there are **opportunities to align research with our needs**. For example, we have rich datasets that could be used by researchers to answer a range of research questions

- provide insights to education researchers about questions that will have the **greatest impact** on the NSW education system stewardship, practice, programs and policy.

> This is what evidence we need to create an outstanding and equitable education system.

> Thanks, this helps me choose my research topics so they will have the greatest impact on education in NSW.

Part 2: Overview

This guide presents the evidence needs we have identified to inform our research activity and investment. Our evidence needs are underpinned by the department's purpose to transform lives through public education. They are aligned with the department's policy goals outlined in Our Plan for NSW Public Education, organised into 6 areas that will help us to:

- advance equitable outcomes, opportunities and experiences
- strengthen trust and respect for the teaching profession and school support staff
- give children the best start in learning
- deliver outstanding leadership, teaching and learning
- strengthen student wellbeing and development
- provide meaningful post-school pathways.

We also support high quality research that can guide key enablers of the focus areas:

- support services that are efficient, effective and easy to access
- school infrastructure that meets the needs of a growing population and supports improved student outcomes.

Across all focus areas, we call on researchers to take an equity lens and embed equity principles and practices throughout the research process.[1] Part 4 of this guide outlines equity features and other considerations for designing research.

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1   To learn more about using an equity lens in research design and embedding equity at each stage of the research process, refer to resources from the Equity Working Group of the Career and Technical Education (CTE) Research Network, including: Using an Equity Lens to Design your Research and Equity framework for career and technical education research.

For each of the focus areas, this guide presents the following elements to assist researchers in planning their future education research in NSW.

Element	Guidance to researchers
Our goal for NSW public education	**What is the department trying to achieve?** **Consider how your research is aligned with our goals, agreed actions and success measures in Our Plan for NSW Public Education**
Our evidence needs	**What does the department need to know to achieve the policy goal?** **Consider how your research can address the evidence needs.**
Our research focus	**What education research is most required?** **Consider how your research can focus on:** • **What works** for students across educational settings and populations (effectiveness evidence). • **What works** when implementing evidence-based practice, programs and policy, across educational settings and populations (implementation evidence). • **What works** to scale up practice, programs and policy, across educational settings and populations (implementation evidence). • **What is needed** to inform future innovation and design of our education system, practice, programs and policy (exploratory research).

Researchers can also **consider how your research can be informed by the department's data assets**. The NSW Department of Education Insights Hub holds a range of education datasets that could be used to address our evidence needs. Appendix 3 provides information on our data assets and how they can be accessed.

Part 3: Evidence needs and required research

Advance equitable outcomes, opportunities and experiences

Our goal for NSW public education

Advance equitable outcomes, opportunities and experiences, so every learner receives an excellent education that enables them to excel.

Our evidence needs

We need research evidence to understand what a high performance and equitable education system looks like and how we can achieve it in NSW to ensure every student can fairly access, participate and benefit from schooling. We are most interested in knowing what is needed, at the system, school and classroom levels, to lead for equity and foster strong and positive equitable outcomes, experiences and opportunities for all students. Researchers should consider different forms of educational disadvantage and how they intersect.[2] We emphasise that research in this area needs to be culturally safe and responsive.

Our research focus

To address our evidence needs, we require research that:

- can help us define and measure equity of opportunity and experience in support of strong and positive equitable outcomes, at all levels of the system, now and into the future
- identifies what system and policy levers can improve equitable outcomes, opportunities and experiences for all learners and those who support them
- can tell us what works to effectively lead and implement differentiated support for school improvement
- explores how learning environments can be designed, built and maintained to effectively enable every student's learning and development, with a focus on classroom air quality, cost-effective school design and building approaches.

> **Rural and Remote Education Strategy Implementation Plan**
>
> As a key equity cohort, it is important that complexities within regional, rural and remote (RRR) communities and the 968 schools serving these communities are considered in research that informs evidence-based practice. The Rural and Remote Education Strategy Implementation Plan outlines how we will deliver on the Rural and Remote Education Strategy. It should be read together with Our Plan for NSW Public Education. It outlines 3 key initiatives to address key concerns RRR learning communities have raised and how the department is embedding the needs of these communities in programs being delivered across the department.
>
> We encourage researchers to use this plan to understand the department's focus in providing contextualised supports to RRR learning communities.

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2   Refer to Part 4 – Features to consider when designing your research: Focus on equity (p 15).

Strengthen trust and respect for the teaching profession and school support staff

Our goal for NSW public education

Strengthen trust and respect for the teaching profession and school support staff, so our teachers and staff feel valued, included and supported to perform at their best.

Our evidence needs

We need research evidence that will help us strengthen the status of the teaching profession, reduce teacher workload and improve the wellbeing of our teachers and school support staff. We are most interested in knowing what is needed, at the system and school levels, to attract and retain great teachers and staff and best support their wellbeing.

Our research focus

To address our evidence needs, we require research that:

- can tell us what works to support staff wellbeing and engagement and how to best implement relevant programs across school contexts and early childhood settings

- can tell us what works to increase teacher supply – both recruitment pathways and retention – in high need locations and specialist subject areas

- can help us define, measure and effectively deliver and scale best practice training and professional learning for staff in our classrooms now and into the future

- can help us implement and scale effective leadership development and opportunities for education leaders at all stages of their career.

Staff Wellbeing Strategy

The wellbeing of all staff across our schools, workplaces and services is our priority and key to everything that we do. Researchers can refer to our Staff Wellbeing Strategy to understand the department's vision and priorities for a public education system where all staff are supported to perform at their best and feel trusted and valued.

Give children the best start in learning

Our goal for NSW public education

Give children the best start in learning, so that all children have the best start in life.

Our evidence needs

We need research evidence to support delivery of high-quality, accessible, affordable early childhood education and care (ECEC) in NSW. We are most interested in knowing what is needed to ensure all families have access to affordable, safe, quality early childhood education and care, for all children to get the best start to life and learning.

Our research focus

To address our evidence needs, we require research that:

- can tell us what barriers are preventing equitable access, participation, and belonging in ECEC settings and how we can address them
- can help us learn what works best to create continuity of high-quality learning from ECEC settings and into the early years of school
- can tell us about the characteristics and conditions of ECEC settings that are most successful in attracting and retaining high quality inclusive early childhood teachers and educators
- can tell us about the impacts of, and best designs for, learning environments, materials and resources for children in the early childhood years.

Our plan for early childhood education

The department's plan for early childhood education will sit alongside our broader Plan for NSW Public Education. It provides detail that will outline a strong purpose, commitment and priorities, as well as guiding principles to give children the best start in life and learning.

We encourage researchers to use the plan, once it is released, to understand our more detailed policy goals and align their work to help us best support children, families and the early childhood education sector.

Deliver outstanding leadership, teaching and learning

Our goal for NSW public education

Deliver outstanding leadership, teaching and learning, so every student achieves ambitious learning goals every year.

Our evidence needs

We need research evidence that can support teachers and school leaders to implement key system-led reforms with minimal burden, to scale effective practices and improve learning outcomes in NSW now and into the future. We are most interested in what works, for whom and under what conditions to support every student to achieve their learning potential.

Our research focus

To address our evidence needs, we require research that:

- can tell us what works to effectively lead and implement evidence-based literacy and numeracy practices taught across the NSW curriculum

- can tell us what factors determine effective, sustainable implementation of the curriculum and syllabuses, now and into the future

- can help us implement and scale effective explicit teaching practices across all education settings

- can tell us how to best implement teaching and whole-school approaches that meet the educational goals of Aboriginal and/or Torres Strait Islander learners

- can tell us how to best implement teaching and whole-school approaches that enable better educational outcomes, opportunities and experiences for priority populations

- explores how schools across all settings can use generative Artificial Intelligence technology to enhance teaching and learning in ways that are safe, equitable, ethical and effective.

> **Research evidence in practice: Explicit teaching**
>
> Explicit teaching has a strong evidence base that meets the highest standards of evidence.[3] Our What Works Best resources highlight explicit teaching as an effective teaching approach for improving student outcomes across all year groups and ability levels. As part of Our Plan for NSW Public Education we are deepening the focus on explicit teaching. We work together with educators to embed the evidence for explicit teaching practices across the system.
>
> Our research on explicit teaching focuses on providing new insights for educators on how to use explicit teaching practices to support student learning and engagement. We are interested in research that will help us with integrating the research evidence on explicit teaching into system-wide classroom practice. For more information refer to Explicit teaching in NSW public schools.

3   AERO (2022) 'Explicit instruction: Clearly explaining and effectively demonstrating what students need to learn'. Refer also to Appendix 2 of this document for more on the standards of evidence.

Strengthen student wellbeing and development

Our goal for NSW public education

Strengthen student wellbeing and development, so every student is known, valued and cared for.

Our evidence needs

We need research evidence that helps us ensure a successful and fulfilling education journey for all students. We are most interested in knowing what drives student achievement, wellbeing and engagement inside the school gates, and what is needed to best support students through transition stages to ensure they can learn, grow and belong in our education system.

Our research focus

To address our evidence needs, we require research that:

- can tell us what works to support student wellbeing and engagement across education settings and priority populations
- can tell us what works at the system and school level to effectively understand and support the transition of students between years and stages, to support learning and wellbeing at these stages:
  - home to early childhood education
  - early childhood education to Kindergarten
  - Year 2 to Year 3
  - Year 6 to Year 7
  - Year 10 to Year 11
  - Year 12 to post-school opportunities
  - school to school transition
  - specialist and mainstream setting transitions
- can tell us what evidence-based system and school level initiatives help students re-engage after an unsuccessful stage or school transition
- explores how students use digital devices in schools and how problematic screen use impacts student learning, wellbeing and development.

Screen Use and Addiction Research Fund

The department has established a Screen Use and Addiction Research Fund to support critical research exploring the impacts of problematic screen use on young peoples' development and learning. The research will be used to create a resource database to connect teachers, educators, school leaders, students and parents/carers with accessible evidence and tools.

More information can be found on the Screen Use and Addiction Research Fund page.

Provide meaningful post-school pathways

Our goal for NSW public education

Provide meaningful post-school pathways, so students finish school ready to succeed in their chosen pathway as informed, responsible citizens.

Our evidence needs

We need research evidence to inform the design and delivery of our vocational and higher education policies and programs. We are most interested in building the evidence base to improve access, opportunities and choice across post-school pathways including university, training and work for all students.

Our research focus

To address our evidence needs, we require research that:

- can help us define and measure quality vocational skills and higher education learning, now and into the future for all students
- can tell us what works to support students to make well informed career choices based on their local context
- can tell us what works to enable successful post-school outcomes, opportunities and experiences for students from priority populations
- can tell us what works to engage students in high quality VET and support services and to how to best implement engagement programs
- explores future credentialing and qualification preferences of employers, students and trainers.

NSW vocational education and training (VET) review

The NSW VET Review 2023–2024 is a comprehensive examination of the vocational education and training sector. The review focused on identifying the strengths, gaps and opportunities for improvement in skills development and training, to support our students and workforce.

The NSW Government welcomes the findings of the final report and will consider its recommendations before providing a response. This work may further inform our evidence needs for the vocational education and training sector.

The department is also developing a NSW Skills Plan. This plan will shape government efforts across priority industries, regions, and skills requirements, ensuring that our initiatives align with the identified needs.

Part 4: Preferred research approaches

Methodologies to consider when designing your research

Our expectations for research design are set out in the NSW State Education Research and Partnerships (SERAP) guidelines, underpinned by the National Statement on Ethical Conduct in Human Research. We expect all research to be grounded in a deep respect for students, staff and families. We require research that uses high quality research methods that minimise potential risks from technical flaws or ethical insensitivity and maximise the potential benefits to our system.

To address the evidence needs identified in this guide, our preferred research approaches are outlined below and may involve qualitative, quantitative or mixed methods as appropriate.

Effectiveness research

We are interested in research that can identify 'what works' to create an outstanding and equitable education system through our practices, programs and policies. For example, educational effectiveness research,[4,5] might include:

- systematic reviews and meta-analyses
- rigorous causal evaluations and intervention studies of practice, programs and policies, with a focus on efficiency as well as effectiveness as an outcome measure (for example, quasi-experimental evaluation of school-based programs and interventions)
- analysis of our existing datasets and longitudinal data to answer 'what works'
- simulation modelling designs using available data.

Implementation research

We are interested in research that can inform the implementation of practice, programs and policy across all education settings in NSW. For example, we are interested in:

- research that promotes integration of research findings into classroom practice and educational policy to ensure every student can learn, grow and belong
- research that can guide scaling-up of effective, evidence-based programs and practices, across education settings in NSW, to support every student to achieve their learning potential.

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4   Reynolds D, Sammons P, De Fraine B, Van Damme J, Townsend T, Teddlie C and Stringfield S (2014) 'Educational effectiveness research (EER): a state-of-the-art review', *School Effectiveness and School Improvement*, 25(2):197–230, doi:10.1080/09243453.2014.885450.

5   For the purposes of the Research Statement and Research Guide, the term 'research' refers to both research and evaluation. Refer to the Research Statement (p 7) for more information.

Analysis of our existing data assets

We are interested in research that uses the department's strategic collection of data assets to support leading edge research.

Appendix 2 contains an existing framework for quality education research to support researchers with their study designs.

Features to consider when designing your research

Focus on equity

We are interested in research that supports us to reduce gaps in student outcomes, opportunities and experiences due to structural inequities. We want researchers to consider student populations who may face structural barriers to equitable access, participation and benefits from education:

- students who face intersecting forms of disadvantage and compounding disadvantage (for example, students from regional, rural and remote areas who also have disability face multiple and compounding barriers)
- Aboriginal and/or Torres Strait Islander students
- culturally and linguistically diverse students
- students who use English as an additional language or dialect
- students with disability
- students from regional, rural, and remote areas of NSW
- students from low socioeconomic backgrounds
- early school leavers, school refusers, and students who struggle to complete school.

We are also interested in research that engages and supports our teachers, educators, education leaders and school support staff across all education settings.

Focus on measurement of priority outcomes

We are interested in research which measures our identified success measures stated in Our Plan for NSW Public Education.

We want researchers to also consider our identified priority outcomes as they intersect (for example, an intervention that will lift both student wellbeing and learning outcomes), and not just in silo.

Focus on use of data assets, where appropriate

We are interested in research that, where relevant, uses our strategic collection of data assets (refer to Appendix 3), under the appropriate governance, standards, and policy, to support leading-edge research.

Focus on 'on the ground' or embedded research, where appropriate

We are interested in research that is conducted 'on the ground' especially in regional, rural and remote education settings, or other diverse settings where appropriate. 'On the ground' research should demonstrate direct, tangible benefits to the participating settings that justify the disruption and time burden on teachers, staff and students. Refer to the department's SERAP guidelines for further information.

Focus on including student, teacher and family voice, where appropriate

Across all relevant research, it is expected that diverse learner, family and staff voices will be captured and measured, where appropriate.[6]

Focus on strengths-based methodologies, where appropriate

We are interested in the use of strengths-based methodologies, particularly in the context of research that focuses on students who face structural inequities. It is expected that future research will use mixed-methods approaches including qualitative and strengths-based quantitative analysis.[7]

Focus on culturally responsive research

It is important that research involving Aboriginal and/or Torres Strait Islander people centres students, their families and their communities at the heart of research methodology and processes. Researchers should refer to Re-imagining Evaluation: A Culturally Responsive Evaluation Framework and embed the guiding principles in the research.

Focus on current and future contexts

We are interested in research that considers how the education system and infrastructure can be sustainable and adaptable within the context of a changing world, now and into the future.

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6   Capturing and measuring student voice (CESE 2016)
7   Strengths-based approaches for quantitative data analysis: A case study using the Australian Longitudinal Study of Indigenous Children - ScienceDirect

Appendices

Appendix 1 – How was this document developed?

This guide was informed by:

- the department's goals, agreed actions and success measures in Our Plan for NSW Public Education, to ensure the evidence needs flow from the department's focus areas and policy priorities

- identification of the department's key initiatives, to ensure linkage

- identification of evidence gaps, to avoid duplicating what is known

- identification of short-term priorities, to ensure immediate needs are addressed

- identification of medium- and long-term priorities, to provide a pipeline of research addressing current and future challenges

- identification of the priorities of students, parents, teachers, educators, school leaders, and department staff, to be heard through the department's research activities.

It is expected that this document will be reviewed annually to ensure emerging priorities and evidence needs are addressed.

Appendix 2 – Framework for quality education research

The Research Statement accompanying this guide encompasses many different types of research,[8] which can generate different standards of evidence. The standards of evidence adopted by the Australian Education Research Organisation (AERO) is one framework for quality research that uses a continuum of 4 levels of confidence, along which research rigour and relevance increase.[9]

Figure 1

Levels of research evidence[10]
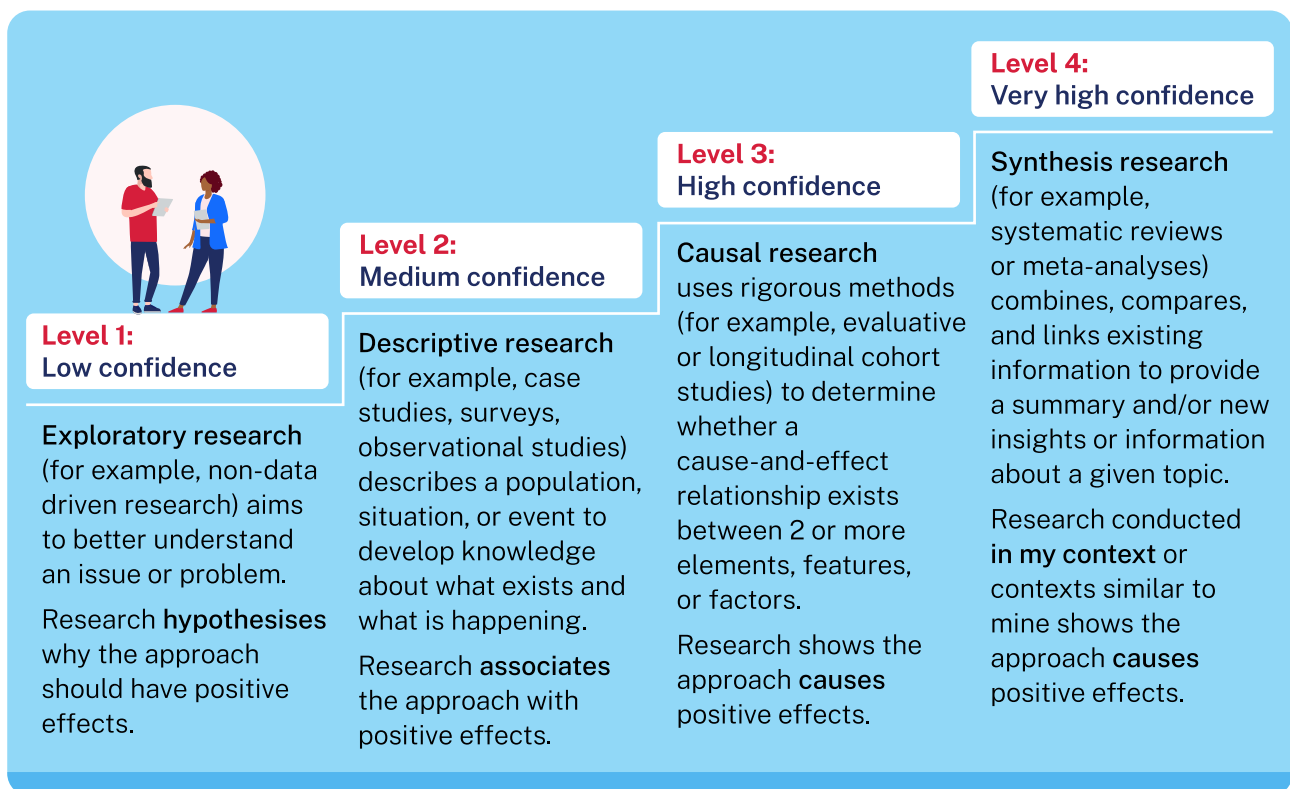
Higher levels of rigour and relevance provide greater confidence that a particular approach is effective in a particular context.

Rigorous evidence

Evidence produced using research methods (whether qualitative, quantitative, or mixed methods) that isolate the specific impact of a particular educational approach.[8]

Relevant evidence

Evidence produced in contexts that are similar to one's own. Evidence is also relevant when it is derived from a large number of studies conducted over a wide range of contexts, as this suggests that the educational approach is not dependent on any particular contextual factor.[8]

8   AERO key concepts in research
9   AERO standards of evidence
10   Adapted from the AERO standards of evidence

Appendix 3 – Data assets

The NSW Department of Education Insights Hub is an open data portal that brings together a list of NSW Government datasets. The department provides the public, media, policy makers and researchers with information on key education data through this platform.

The open data portal includes a range of datasets relating to early childhood education, schools and higher education. There are nearly 300 datasets, resources and publications currently available, with new data continuously added.

Useful datasets on the open data portal:

- the master dataset lists all NSW public schools with key information such as enrolments, location and contact details
- list of preschools and early intervention classes
- specialist support classes by school and support needs type
- multi-age or composite classes in NSW Government schools
- average government primary school class sizes by school size
- average government primary school class sizes by year
- attendance data at the school level.

Where else can I access data?

Other sources of publicly available education data are listed on the Open data webpage.

For assistance with finding public data, submitting a request for data and questions relating to department data, email data.services@det.nsw.edu.au.

To request custom data that is not available online, complete the data request form.

Appendix 4 – Glossary

Term	Definition
Belonging	Refers to students' feelings of being accepted and valued by their peers and by others at school. It reflects the extent to which students feel personally accepted, respected, included, and supported by others at school.
Compounding and intersecting disadvantage	Multiple forms of inequality or disadvantage. For example, students from regional, rural and remote areas who also have disability are likely to face compounding and intersecting barriers.
Education settings	Early childhood education (ECE) services, infant schools, primary and secondary schools (K–12) schools, environmental education centres, vocational education and training, higher education, distance education, and schools for specific purposes. 'Public educational settings' when referring to settings in government sector.
Educators	Education professionals, including teachers, leaders and early childhood educators, who provide education in early childhood, primary, secondary, vocational and higher education settings.
Engagement	Refers to the extent to which students identify with and value schooling outcomes, and participate in academic and non-academic school activities.
Equity	Equity means that we recognise the rights of all students and learners to access and participate fully in education and realise their educational potential. We strive to adapt practices and policy settings to remove barriers to education, and channel support where it is most needed.
Evaluation	A systematic and transparent process that can be used to assess the appropriateness, efficiency, effectiveness or net social benefits of an initiative.[11]
NSW Department of Education ('the department')	The largest provider of public education in Australia, with responsibility for delivering high-quality public education to two-thirds of the NSW student population.
Priority populations	Student populations likely to face structural barriers to equitable access, participation and benefits from education, including: Aboriginal and/or Torres Strait Islander students, students with disability, students in regional, rural and remote areas, students from culturally and linguistically diverse backgrounds, students from low socio-economic status backgrounds.

11 NSW Government Evaluation Policy and Guidelines

Term	Definition
Qualitative research	Qualitative research aims to answer questions about how and why things have happened. It is used to gain insights into phenomena, groups, or experiences that cannot be objectively measured, and to generate new theories. Qualitative data is descriptive information. It can be derived from in-depth interviews, observations, surveys or questionnaires. Surveys collect qualitative data if they involve asking people for detailed (free-text) responses.
Quantitative research	Quantitative research aims to provide objective information using mathematical and statistical methods. It is used to establish causal explanations, determine relationships between variables, test predictions, and generalise results to wider populations. Quantitative data is always numerical and is used to find out a quantity, such as how much, how many or how often. It can be collected via a range of methods such as observation, interviews, surveys, questionnaires, assessments or tests. Surveys are quantitative if they involve rating things on a numerical scale or counting responses.
Research	The creation of new knowledge and/or the use of existing knowledge to generate concepts, methodologies, inventions, and understandings that address timely and important gaps and issues. This could include synthesis and analysis of previous research to the extent that it addresses current and emerging knowledge gaps and contributes to NSW public education.[12]
Students	Children, young people and adult learners in all education settings.
Wellbeing	Wellbeing can be described as the quality of a person's life. A focus on wellbeing goes beyond the welfare needs of a few individual students and aims for all students to be healthy, happy, successful, and productive individuals who are active and positive contributors to the school and society in which they live.
'What works'	Research to identify what works to help us improve the education system stewardship, practice, programs and policy. For example, systematic reviews and meta-analyses, rigorous evaluations of programs, intervention studies, and analysis of our datasets and longitudinal data.

12 Australian Code for the Responsible Conduct of Research, 2018

We recognise the Ongoing Custodians of the lands and waterways where we work and live. We pay respect to Elders past and present as ongoing teachers of knowledge, songlines and stories. We strive to ensure every Aboriginal and/or Torres Strait Islander learner in NSW achieves their potential through education.