

ACSES CAPACITY BUILDING GRANTS PROGRAM

Building infrastructure to evaluate student equity program outcomes

Deakin University

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Acknowledgement of Country

The Australian Centre for Student Equity and Success acknowledges Indigenous peoples across Australia as the Traditional Owners of the lands on which the nation's campuses are situated. With a history spanning more than 60,000 years as the original educators, Indigenous peoples hold a unique place in our nation. We recognise the importance of their knowledge and culture, and reflect the principles of participation, equity, and cultural respect in our work. We pay our respects to Elders past, present, and future, and consider it an honour to learn from our Indigenous colleagues, partners, and friends.

Deakin University would like to acknowledge the Traditional Custodians of the lands on which our university campuses are based: the Wadawurrung People of the Kulin Nation on whose Country our Geelong campuses are located, the Wurundjeri People of the Kulin Nation on whose Country our Burwood campus is located, and the Peek Whurrong People of the Maar Nation on whose Country our Warrnambool campus is located.

We express our gratitude for their care of Country which continues to sustain us as it has done for millennia. Education has a long and rich heritage on this continent, which we aim to honour and reflect in the ways we teach and learn.

1. Approach

1.1 Background

In 2025, Deakin University initiated a strategic project aimed at aligning institutional [Higher Education Participation and Partnerships Program](#) (HEPPP) data with enterprise-level business intelligence platforms. This initiative marked a significant step in Deakin’s institutional implementation of stages two and three of the [Student Equity in Higher Education Evaluation Framework](#) (SEHEEF), with a focus on enhancing the university’s capacity to monitor and evaluate equity-focused program initiatives.

Table 1: Shows indicative stages for implementing the SEHEEF at Deakin. Drawn from page 20 of the [SEHEEF Final Report 2021](#).

Stage 1 and 2	Stage 2 and 3	Stage 3 and 4
<i>2022-2024</i>	<i>2025</i>	<i>2026 – onwards</i>
<ul style="list-style-type: none"> • Socialise the SEHEEF. • Review existing data and systems. • Identify actions to support implementation. • Data linkage: Establish a student equity flag. 	<ul style="list-style-type: none"> • Data linkage: Participation data to Higher Education Information Management System (HEIMS) / Tertiary Collection of Student Information (TCSI). • Establish processes for program evaluations. 	<ul style="list-style-type: none"> • Data linkage: Additional outcomes at participation and attainment and transition out stages. • Complete priority evaluations.
Sharing: Sector article shared via ACSES Community of Practice (CoP).	Sharing: ACSES National Network Webinar.	Sharing: To be determined.

As [proactive adopters of the SEHEEF](#), Deakin had collected a substantial volume of data related to student engagement with HEPPP-funded activities, including continuous quality improvement (CQI) and participation data. Despite the breadth and depth of this information, it was located across multiple systems. Due to resource constraints, the university had yet to consolidate and structure this information in a way that supported integration with institutional databases and enabled enterprise-level insights.

The limited integration hindered the university’s ability to conduct whole-of-program evaluations of equity initiatives, comprehensively monitor program effectiveness, and inform strategic funding decisions.

To address these challenges, a collaborative cross-disciplinary project was established, involving key divisions:

- Equity & Inclusion: Responsible for governance and planning of HEPPP.
- Deakin Analytics & Insights: A central hub for data analytics at Deakin.
- Biostatistics Unit – Faculty of Health: Contributing specialised biostatistical expertise.

Together, these teams embarked on a process to structure and consolidate three years of HEPPP data (2022, 2023, 2024) in alignment with the SEHEEF and prepare information for migration to a centralised data repository. This foundational work enabled the integration of HEPPP data with other institutional datasets, facilitating dynamic insights into equity student outcomes and supporting evidence-based decision making.

In alignment with the Australian Centre for Student Equity and Success (ACSES) Capacity Building Grants Program, which supported the delivery of this project, this report shares how the *Building infrastructure to evaluate student equity program outcomes* project strengthened internal capability, promoted knowledge exchange across university divisions, and deepened institutional understanding of student equity data and evaluation practices.

1.2 Outline

In line with the original project proposal, this initiative involved both technical and individual focused capacity building. The types of capacity building achieved can be grouped into three distinct categories:

- system capacity building
- team capacity building
- evaluation capacity building.

Table 2: Shows three types of capacity building that took place during the project: system, team, and evaluation.

System capacity building	Team capacity building	Evaluation capacity building
<ol style="list-style-type: none"> 1. Retrospective cleaning and coding of HEPPP data. 2. Creation of a central repository structure. 3. Integration of participation and program data with student analytics datasets. 	<ol style="list-style-type: none"> 1. Development of cross-unit collaboration workflows. 2. Design of a roadmap for sustainable data governance. 	<ol style="list-style-type: none"> 1. Development of a HEPPP program monitoring dashboard. 2. Establishment of a dataset for analysis.

System capacity building – the who, the what, and the when

Table 3: Details what was delivered under system capacity building, who and what was involved, when it was delivered, and the evidence of output.

Item	Who	What	Delivered	Evidenced by
Retrospective cleaning and coding of HEPPP data (2022–2024).	Equity & Inclusion. HEPPP project leads. Office of Deputy Vice Chancellor Academic (DVCA).	Cleaned and coded previous years' HEPPP data, added project/activity codes, and aligned to SEHEEF program logic.	June 2025.	Standardised file structure, with storage and naming conventions.
Creation of a central repository structure and integration of program (financial and participation) and student analytics data.	Deakin Analytics & Insights.	Integrated three data sources using Alteryx to build a central repository enabling insights into program delivery, participation, and student outcomes.	June 2025.	Documented data model.

Team capacity building – the who, the what, and the when

Table 4: Details what was delivered under team capacity building, who and what was involved, when it was delivered, and the evidence of output.

Item	Who	What	Delivered	Evidenced by
Development of cross-unit collaboration workflows.	Deakin Analytics & Insights. Equity & Inclusion. Data Platforms. Office of DVCA.	Identified areas across the organisation involved in all stages of equity data management. Connected and established an ongoing channel of communication.	Ongoing.	Connected and engaged teams, established communications channels.
Sustainable data governance.	Deakin Analytics & Insights. Equity & Inclusion. Office of DVCA.	Developed plan for managing equity data.	Ongoing.	Data governance documentation and process maintenance practices.

Evaluation capacity building – the who, the what, and the when

Table 5: Details what was delivered under evaluation capacity building, who and what was involved, when it was delivered, and the evidence of output.

Item	Who	What	Delivered	Evidenced by
Development of a HEPPP program monitoring dashboard.	Deakin Analytics & Insights. Equity & Inclusion.	Primary outcome indicators for participation lifecycle stage programs enabled in dashboard view.	September 2025.	Resource delivered and dynamic insights for funding decision makers made available.
Establishment of a dataset for evaluation.	Deakin Analytics & Insights. Equity & Inclusion. Biostatistics Unit – Faculty of Health.	Collaborate with internal researchers to co-design evaluation approach. Translate and establish mutual understanding of student equity practice and evaluative discipline.	October 2025.	Workable evaluation dataset delivered at appropriate granularity for analysis. Early-stage learnings uncovered and future challenges and/or next steps identified.

This project drew on equity program subject matter expertise from the Equity & Inclusion and Academic Governance and Standards team members; technical and data engineering capabilities from Deakin Analytics & Insights; and iterative, specialised feedback from biostatisticians in the Faculty of Health. It also relied on enterprise data management support from the Data Platforms team and consultation with the Government Reporting team within Student Information Services and Systems, who manage the “first reported address” file and serve as the primary liaison with the Federal Government’s data collection divisions (for example, Tertiary Collection of Student Information (TCSI)).

Throughout the project, Equity & Inclusion and Deakin Analytics & Insights met approximately 19 times to workshop, conduct data discovery, and build shared understanding of program logic and system capabilities. Additionally, Equity & Inclusion, Deakin Analytics & Insights, and the Biostatistics Unit – Faculty of Health met approximately 10 times to refine which evaluation questions could be assessed with the information currently available, and proposed the type of data that will need to be collected in the future to address further questions. These meetings were also important for determining the level of data granularity required for analysis of the dataset.

Beyond scheduled meetings, teams engaged in ad hoc collaboration and undertook substantial independent work to advance the project. Equity & Inclusion consolidated and coded historical HEPPP data for input; Deakin Analytics & Insights engineered the data and developed an integration-ready data model; and the Biostatistics Unit reviewed prototype datasets and helped refine the evaluation questions and establish an appropriate statistical analysis plan.

1.3 Challenges and enablers

Some challenges included:

1. **Exploratory process took time:** The project required iterative discovery and problem solving, which extended timelines.
2. **Establishing a common technical language across disciplines:** Aligning technical and operational perspectives meant bridging differences in terminology and understanding of requirements.
3. **Volume of data:** A shift from scarcity to abundance. While access to data has improved significantly, the challenge has transitioned to making sense of large complex datasets. This means:
 - For senior leadership: Identifying what data supports strategic program decisions.
 - For project teams: Determining what informs operational direction.

The goal of future work will be to ensure data insights translate into better outcomes for students, not just more information.

4. **Intentional data collection:** The next challenge is not to collect more data immediately, but to ensure that data collection is purposeful and aligned with program strategy. The recommendation is to gather new data only if it addresses a clearly defined critical gap and will directly inform program strategy or operational improvements—ultimately enhancing support for students.

Some enablers included:

1. **Resourcing:** Funding support from ACSES, HEPPP, and in-kind contributions from Deakin provided the financial and operational capacity to deliver the project.
2. **Senior leadership trust and support:** Leaders offered autonomy and confidence in the team's approach, allowing flexibility when deviations from the original plan were necessary.
3. **Right mix of expertise:** The team combined data analytics specialists, biostatisticians, and equity program experts, all of whom could both function with an operational lens and consider strategic alignment, ensuring both technical rigour and contextual relevance.
4. **Culture of collective leadership:** Shared accountability and collaborative decision making maintained momentum throughout the project.

2. Outputs

2.1 Key results

Data structure and governance: Delivered a data model to allow integration of datasets, supported by a data dictionary, naming conventions, and governance documentation to ensure consistency and sustainability.

Student equity monitoring dashboard: Developed a dashboard to support program planning and monitoring, enabling a shift from static to dynamic reporting.

Dataset for analysis: Delivered a longitudinal dataset capable of tracking engagement across programs and years, supporting future impact evaluation.

2.2 Key Learnings and Findings

2.2.1 Non-linear implementation of the SEHEEF

Embedding the SEHEEF is not a linear process. Elements of stages two and three progressed concurrently, with refinement occurring through cycles of development, trial, and review.

2.2.2 Complexity in defining equity indicators

The process of reviewing enterprise equity definitions to ensure policy alignment identified cases that needed further consideration in the first reported address file, including:

- international students who become domestic students during their course
- domestic students living overseas.

These cases have been escalated to University Statistics and TCSI, prompting a review prior to providing actionable advice.

2.2.3 Not all engagement equals a count of one

Evaluation design must account for the nature, depth, and frequency of engagement. For example, a single activity type—such as a scholarship—can vary significantly depending on its value and delivery schedule. Similarly, one-to-one peer mentoring differs from a group study session, even though both may be recorded as a single count of engagement.

This highlights the need for a more nuanced approach to documenting activities and measuring engagement. A recommendation for future work is to develop an engagement matrix for equity programs, to capture the variability and intensity of student interactions across initiatives and therefore support more accurate and meaningful evaluation.

2.2.4 From static to dynamic planning and monitoring

The transition to dynamic dashboards and integrated datasets has enabled more in-depth monitoring of HEPPP-funded initiatives. This shift provides richer insights into program performance, supports strategic decision-making, and fosters a culture of continuous improvement.

Importantly, this project has created opportunities for dynamic planning, where student management system (SMS) data can be used not only to monitor outcomes but also to proactively identify trends, design programs in response to emerging insights, and track progress towards desired outcomes over time.

2.3 Next steps

This work serves as a proof of concept for supporting dynamic planning. The next steps are to fully realise this in practice by:

2.3.1 Building data literacy and analytical capacity

Project teams need dedicated time and support to develop skills in asking meaningful evaluation questions, interpreting findings effectively, and translating insights into actionable improvements.

2.3.2 Developing an evaluation framework for the equity program at Deakin

The project has already enabled SMS data to inform primary outcomes for student success, establish benchmarks, and track student progress through longitudinal analysis, laying the foundation for evidence-based equity program design, monitoring, and evaluation.

Current primary outcomes being explored for whole-of-program evaluation include:

- Success—viewed as the student success rate (pass rate), defined as the number of units passed divided by the number of units enrolled within an academic year.
- Participation—measured by participation indicators (student ID collected in activity's administration data). These indicators can be used to estimate reach (participation rate) of the program or specific activities.
- Retention—categorised as continued course progression or course discontinuation, for reasons theoretically related to the program's intent. These include students identifying the course as too difficult, financial reasons, and health reasons (as a proxy for wellbeing).

These outcomes can be defined at the individual student level and then aggregated in multiple ways (for example, by cohort, program, or activity).

In the future, we will aim to explore linkage of participation with Quality Indicators for Learning and Teaching (QILT) data to further understand relevant outcomes. The first

indicators to explore include “sense of belonging to institution” and ratings of “overall quality of educational experience”.

The report appendix provides examples of dashboard wireframes for monitoring and evaluation.

Crucially, this progress has been made possible through the capacity building which has occurred between teams, bringing together the data expertise of the Analytics & Insights team with the program knowledge and subject matter expertise of Equity & Inclusion, and the statistical rigour of the Faculty of Health’s Biostatistics Unit. This collaboration has established a foundation for robust and meaningful evaluation of the equity program.

2.3.3 Granularity matters

The SEHEEF categorised system levels as “student”, “family”, “community”, and “institution”. This project reinforced the importance of understanding engagement and intervention across multiple levels:

- individual student level
- secondary school level
- community level
- unit level
- cohort level
- institution-wide level.

A key outcome of the project was the need to scrutinise the intended system level with greater granularity than previously applied. This led to a refinement in how categories such as “community” are conceptualised—particularly in the pre-access stage. It highlighted the value of considering secondary schools, local government areas, and cultural communities as distinct intervention levels, until more individualised tracking of outcomes becomes accessible for universities in communities and state schools.

Similarly, the “institution” level can be unpacked to include unit, course, and cohorts as sub-levels of intervention, allowing for more targeted intervention and insight.

The methodology developed through this project is well suited to measuring initiatives that intervene at the individual student level during the participation stage, where student IDs can be linked to participation data and internal student outcome databases. However, initiatives focused on institutional development or those operating outside the participation life stage require alternative approaches to scalable monitoring and evaluation.

Importantly, while institutional development initiatives remain a critical area for investment, they may be more challenging to measure compared to direct-to-student initiatives. Systematic changes that enhance the teaching, learning, and support service environment around students are essential to advancing equity across the university, particularly when insights into program reach and participation rates indicate that not all eligible equity students are consistently engaged by direct support offerings like scholarships or peer mentoring.

3. Impact

This project significantly strengthened Deakin University's institutional capacity to evaluate student equity initiatives by aligning systems, fostering cross-organisational collaboration, and deepening evaluative understanding across teams.

The project delivered an uplift in Deakin's ability to plan, monitor, evaluate, and improve equity program delivery. Key impacts include:

1. **Systemic integration of equity data:** By aligning HEPPP data with enterprise-level systems, the project enabled a shift from fragmented monitoring to integrated dynamic insights. This has laid the groundwork for scalable, longitudinal evaluation of equity participation data.
2. **Alignment of enterprise equity definitions:** The development and implementation of a consistent student equity flag across institutional datasets has standardised how equity cohorts are identified and tracked (see Appendix: Table 6: Student flag description). This consistency is critical for robust evaluation and strategic planning.
3. **Evaluation-ready infrastructure:** The creation of a dataset for analysis and a monitoring dashboard has equipped the university with tools to conduct timely, evidence-based evaluations of HEPPP-funded initiatives. These outputs support both compliance and continuous improvement.

Capacity development through collaboration and mutual learning

The project was intentionally designed to build capacity not only through technical and resource outputs, but also through the process of collaboration. Teams learned from each other by working across disciplinary and functional boundaries.

Through regular meetings and iterative development, teams co-developed a shared understanding of the project requirements, enabling more meaningful and aligned evaluation practices.

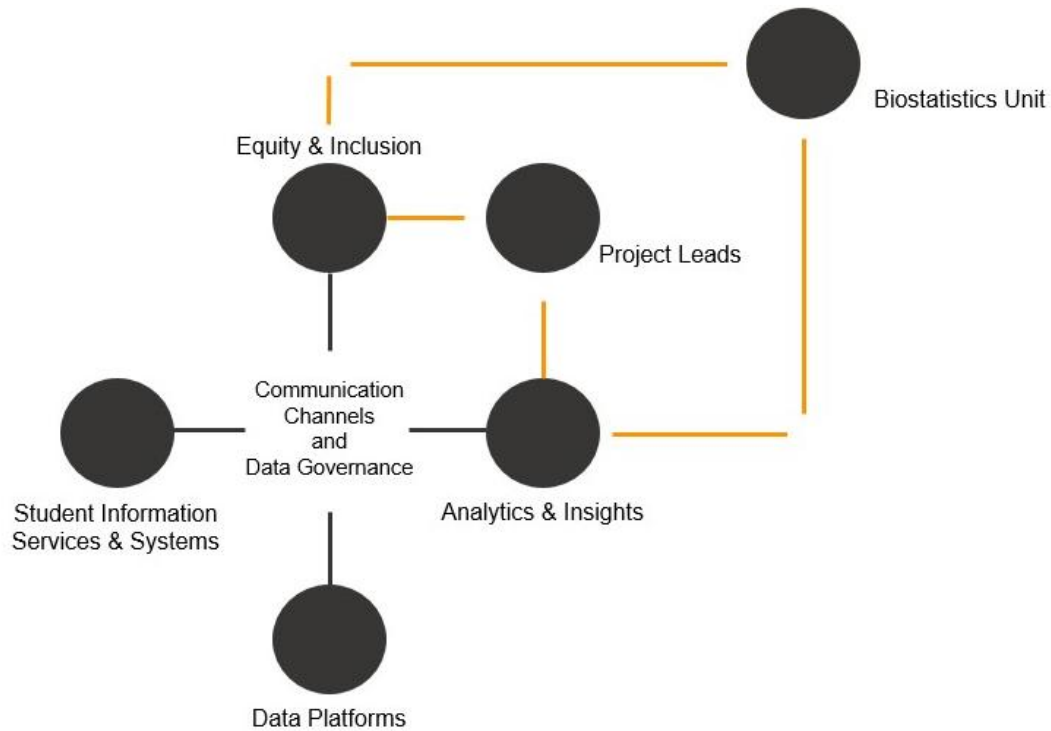
Capacity building through practice

Staff involved in the project developed new skills in:

- translating policy into data structures
- designing evaluation-ready datasets
- interpreting dynamic dashboards
- applying program logic to real-world data.

This hands-on, collaborative approach ensured that the capacity building is now embedded in day-to-day work, rather than treated as a separate or one-off training activity.

Figure 1: Illustrates the post-capacity building ecosystem at Deakin, showing how multidisciplinary teams are now connected and working collaboratively. The orange line represents where the most substantial capacity building for monitoring and evaluation of the equity program occurred.



A culture of continuous improvement

Perhaps most importantly, the project fostered a culture of continuous improvement and evaluative thinking. By embedding evaluation into the design and delivery of equity initiatives, the university is now better positioned to:

- identify what works, for whom, and under what conditions
- allocate resources more strategically
- respond to emerging needs with agility and evidence.

While further work is still required to automate and refine the digital infrastructure, and to draw meaningful insights from the information now available, this project marks a significant step in implementing the SEHEEF at Deakin University.

4. Appendix: Example dashboard wireframes

Table 6: Outlines the enterprise definition of a HEPPP-eligible (equity) student.

Student flag description	
Dimension	Description
Domestic student	Not an overseas student.
Undergraduate course	Student enrolled in an undergraduate course of study.
Low socio-economic status background	First residential address postcode (SEIFA, 2021).
Regional, rural, and remote background	First residential address postcode (ASGS, 2021).
Aboriginal and/or Torres Strait Islander student	Student identifies as being of Aboriginal and/or Torres Strait Islander descent and reported in student management system.

Figure 2. Example wireframe for the dashboards, 2x2 matrix looking at reach of the program split by equity vs non-equity on the vertical axis and program participation on the horizontal axis.

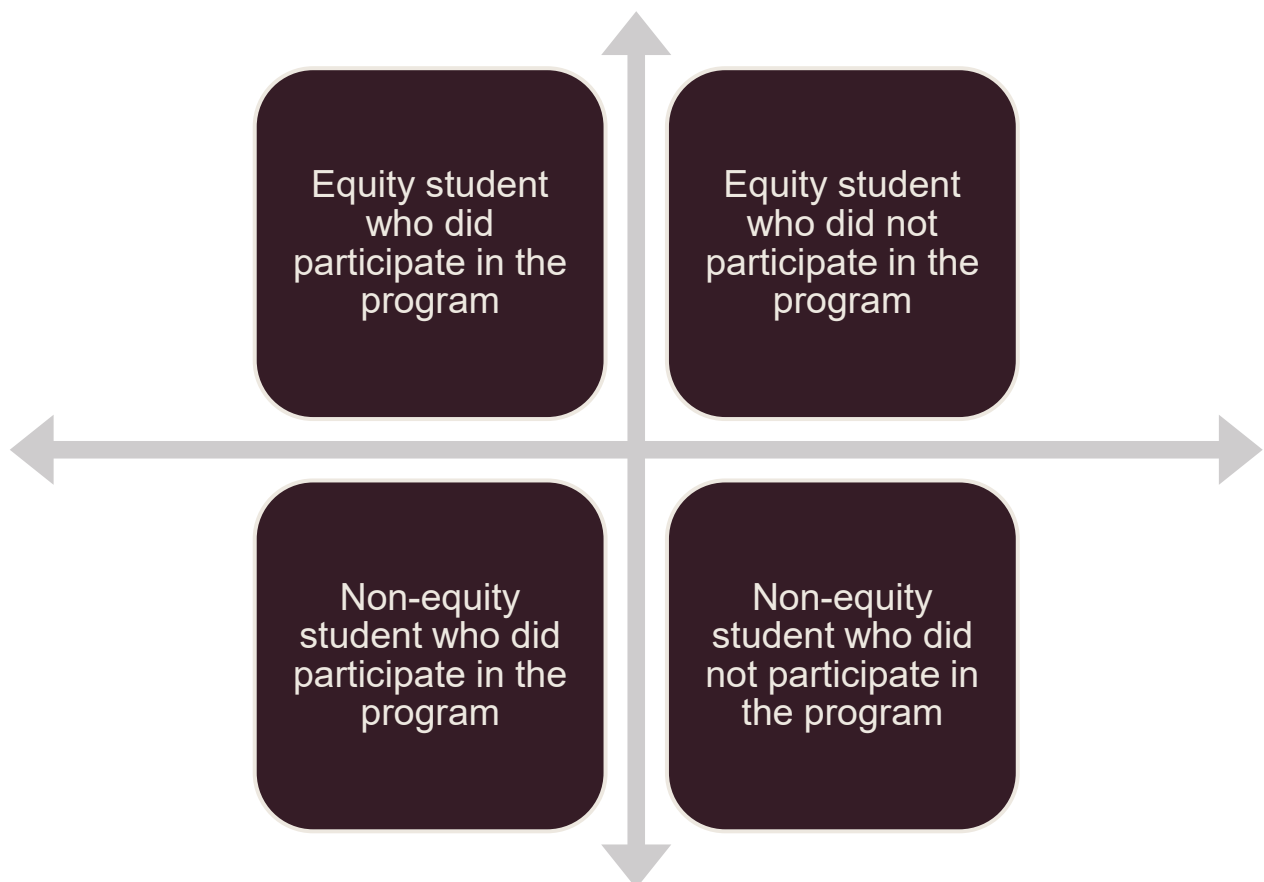


Figure 3 and Table 7: Example wireframe for the dashboards, looking at year-on-year investment per life stage.

<i>Primary student lifecycle stage</i>	<i>Total investment for a selected year (\$)</i>	<i>Portion of total investment (%)</i>	<i>Total investment for the previous year (\$)</i>	<i>Portion of total investment for the previous year (%)</i>	<i>Percentage difference in total expenditure between years (%)</i>
Pre-access	\$#	%	\$#	%	%↑or ↓
Access	\$#	%	\$#	%	%↑or ↓
Participation	\$#	%	\$#	%	%↑or ↓
Attainment and transition out	\$#	%	\$#	%	%↑or ↓
Non-lifecycle specific	\$#	%	\$#	%	%↑or ↓
Grand total	\$#	100%	\$#	100%	%↑or ↓

Dimension	Description
Primary student lifecycle stage	Student life stages as defined by the SEHEEF program logic.
Total investment for a selected year	Organisation's allocation split by life stage.
Portion of total investment	Percentage of organisation's allocation split by life stage.
Total investment for the previous year	Organisation's allocation split by life stage for preceding year.
Portion of total investment for the previous year	Percentage of organisation's allocation split by life stage for preceding year.
Percentage difference in total expenditure between years	Percentage difference in year-on-year expenditure split by life stage.

Figure 4 and Table 8: Example wireframe for the dashboards, looking at year-on-year investment per life stage.

Project code	Project name	Project year	Student count	Equity student count	Equity student study load	Cost per student	Cost per equity student	Cost per equity student study load
100X	Name	20XX	#	#	#	\$#	\$#	\$#
100X	Name	20XX	#	#	#	\$#	\$#	\$#
100X	Name	20XX	#	#	#	\$#	\$#	\$#
100X	Name	20XX	#	#	#	\$#	\$#	\$#
100X	Name	20XX	#	#	#	\$#	\$#	\$#
100X	Name	20XX	#	#	#	\$#	\$#	\$#

Table 8: Figure 4 descriptions	
Dimension	Description
Student count	Distinct count of all participating student IDs.
Equity student count	Distinct count of all participating student IDs who meet HEPPP eligibility.
Equity student study load	Actual equivalent full-time student load (EFTSL) of all participating student IDs who meet HEPPP eligibility.
Cost per student	Project cost divided by student count.
Cost per equity student	Project cost divided by equity student count.
Cost per equity student study load	Project cost divided by equity student study load.

Figure 5 and Table 9: Example wireframe for the dashboards, looking at a potential split of participation and success by campus.

<i>Campus</i>	<i>Equity student count</i>	<i>Equity student participation count</i>	<i>Participation rate (%)</i>	<i>Success rate of equity students (%)</i>	<i>Success rate of equity student participants (%)</i>
Burwood	#	#	%	%	%
Online	#	#	%	%	%
Warrnambool	#	#	%	%	%
Waterfront	#	#	%	%	%
Waurm Ponds	#	#	%	%	%

Table 9: Figure 5 descriptions	
Dimension	Description
Campus	Student's course attempt campus.
Equity student count	Distinct count of all HEPPP-eligible students at that campus.
Equity student participation count	Distinct count of all HEPPP-eligible students at that campus who participated in a HEPPP activity.
Participation rate	Percentage of HEPPP-eligible students who participated in a HEPPP activity.
Success rate of equity students	Average success rate of all HEPPP-eligible students.
Success rate of equity student participants	Average success rate of all HEPPP-eligible students who participated in a HEPPP activity.