

Narragunnawali*: Reconciliation in Education. Research Report #12 – Ongoing Engagement with Narragunnawali – May 2020

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**Narragunnawali* (pronounced narra-gunna-wally) is a word from the language of the Ngunnawal people meaning alive, wellbeing, coming together and peace. The Ngunnawal people are the Traditional Owners of the Land on which Reconciliation Australia's Canberra office is located and on which the main campus of the Australian National University stands. Reconciliation Australia and the authors of this paper pay our respects and thank the United Ngunnawal Elders Council for giving Reconciliation Australia permission to use the word *Narragunnawali* as a meaningful name for its Reconciliation in Education program. It is an important demonstration of respect for Reconciliation Australia, being a national organisation, to acknowledge and recognise the Traditional Custodians of the Lands on which we live, learn and teach.

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Abstract

This report is the twelfth in an evaluation series for Narragunnawali: Reconciliation in Education (formally Narragunnawali: Reconciliation in Schools and Early Learning), commissioned by Reconciliation Australia. Findings of this report are presented in two main sections. In Section One we use Narragunnawali program data, other administrative data, and 2011 census data to assess growth in program uptake, as well as factors associated with program engagement. In Section Two, we explore the feasibility and utility of Google Analytics as an informative data source for the ongoing evaluation of Narragunnawali. In this section, initial substantive Google Analytics findings are presented alongside conclusions and recommendations regarding the possible future use of Google Analytics for evaluative purposes.

Acknowledgements

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1. Introduction

Reconciliation Australia commissioned the Centre for Social Research and Methods (CSRM), at the Australian National University (ANU) and the Social Research Centre's Qualitative Research Unit to undertake an evaluation of Narragunnawali: Reconciliation in Education (Narragunnawali). Narragunnawali is designed to support all schools and early learning services to develop environments that foster a high level of knowledge and pride in Aboriginal and Torres Strait Islander histories, cultures and contributions. This is report number 12 in the ongoing research evaluation of the program.

1.1. Reconciliation in Australia

Reconciliation as a concept has broad support in Australia, by both Aboriginal and Torres Strait Islander and non-Indigenous populations. This support is evidenced by the most recent 2018 Australian Reconciliation Barometer in which 90 per cent of the general community reported that the relationship between Indigenous and non-Indigenous Australians is fairly or very important (Polity Research & Consulting, 2019). At the same Barometer, 74 per cent of the general community agreed or strongly agreed that 'Aboriginal and Torres Strait Islander people hold a unique place as the First Australians'. Furthermore, 86 per cent of the general Australian population indicated that it was very or fairly important for 'for all Australians to learn more about the past issues of European settlement and government policy for Indigenous people' (Polity Research & Consulting, 2019).

Despite broad community support for reconciliation in Australia, there remains real inequalities between Aboriginal and Torres Strait Islander and non-indigenous Australians. In 2008, Australian Governments committed to the first 'Closing The Gap' targets for reducing these inequalities (Australian Government, National Indigenous Australians Agency, 2020). There has been 'on-track' progress towards some targets; most notably, increasing enrolment in early childhood education and year 12 or equivalent attainment. Nonetheless, as outlined in the most recent 2020 Closing the Gap report, targets to close the gap between Indigenous and non-indigenous Australians for child mortality, school attendance, literacy and numeracy, employment, and life expectancy are 'not on track'. In 2019, all Australian Governments and a Coalition of Aboriginal and Torres Strait Islander Peak Organisations signed a formal agreement to work in genuine partnership towards renewing the Closing The Gap framework and targets (Australian Government, 2020). It has been acknowledged, at the highest levels of the Australian Government, that a genuine partnership with Aboriginal and Torres Strait Islander peoples was missing from the original 'Closing the Gap' framework (The Prime Minister of Australia, 12 February 2020). There appears to be a current focus from governments for a renewed agenda that is strengths based and community led.

A singular definition of what is meant by reconciliation in Australia has not been reached. Reconciliation can mean different things to different people and organisations (Biddle & Priest, 2019). It is also important to acknowledge that Aboriginal and Torres Strait Islander communities are heterogeneous with diverse histories, cultures, and varying expectations for or understandings of reconciliation. Nonetheless, Reconciliation Australia, the lead national expert body for reconciliation, has developed a working definition (Reconciliation Australia, 2016). At its core, this working definition is about strengthening relationships between Aboriginal and Torres Strait Islander peoples and non-Indigenous peoples, for the benefit of all Australians.

Reconciliation Australia has identified five interrelated and interdependent dimensions of reconciliation: Race Relations, Equality and Equity, Institutional Integrity, Unity, and Historical Acceptance. Within the Race Relations dimension all Australians understand and value Aboriginal and Torres Strait Islander and non-Indigenous cultures, rights, and experiences. This, in turn, fosters stronger relationships based

on trust and respect and that are free of racism. Equality and Equity recognises the need for equal participation of Aboriginal and Torres Strait Islander peoples in a range of life opportunities. Further, that the unique rights of Aboriginal and Torres Strait Islander peoples are recognised and upheld. The Institutional Integrity dimension acknowledges that active support for reconciliation from our nation's political, business and community structures is needed. Unity is reflected through an Australian society which values and recognises Aboriginal and Torres Strait Islander cultures and heritage as a proud part of our shared national identity. Lastly, the Historical Acceptance dimension documents the importance of all Australians understanding and accepting the wrongs of the past and their impact on Aboriginal and Torres Strait Islander peoples. Additionally, that Australia makes amends for these past policies and practices, and ensures that they are never repeated (Reconciliation Australia, 2016).

1.2. An overview of Narragunnawali

Narragunnawali: Reconciliation in Education (Narragunnawali), is a Reconciliation Australia program designed to address reconciliation in educational contexts. Programs that address reconciliation in educational contexts are an essential component of the broader reconciliation movement in Australia. Such programs are designed to engage all students in learning about the longstanding and continuing significance of Aboriginal and Torres Strait Islander histories, cultures and contributions. Improved educational opportunities and outcomes for Aboriginal and Torres Strait Islander students, and indeed all Australian students, will likely follow as a result. If effectively implemented, these programs also serve as an opportunity to develop cultural competencies within our young people. As these students then graduate from our educational institutions, they will take these learnings within them and positively effect change within our broader Australian communities.

The Narragunnawali online platform is free to access and provides practical ways to introduce meaningful reconciliation initiatives in the classroom, around the school and with the community. While the platform can be accessed by any interested individual, the platform provides a framework and aligned resources for driving reconciliation at the whole school or early learning service level. Through the Narragunnawali platform, schools and early learning services can develop a Reconciliation Action Plan (RAP), and teachers and educators can access professional learning and curriculum resources to support the implementation of reconciliation initiatives.

1.2.1. Reconciliation Action Plans

A Reconciliation Action Plan (RAP) is a formal statement of commitment to reconciliation. A school or early learning service can use the Narragunnawali platform to register existing initiatives or to begin a new journey towards reconciliation.

There are some compulsory and largely sequential key steps in the initial RAP development process. Namely, a RAP Working Group must be established, and can include teaching and non-teaching staff, parents, students and community members. The school or early learning service Principal/Director must be represented on the RAP Working Group. Additional individuals may also be identified as belonging to the school or early learning service's broader RAP Support Network; though this is not compulsory.

As another key step, the completion of a Reflection Survey facilitates a self-assessment as to the current state of reconciliation within the school or early learning service. Each participating school or early learning service then develops their unique Vision for Reconciliation statement – an overarching, aspirational statement that provides an opportunity to publicly articulate what reconciliation means to the school or early learning service, and what it is that motivates the school or service's commitment to reconciliation.

Schools or early learning services commit to the 14 minimally required RAP Actions (though there are a total of 40 RAP Actions that may be selected), and can document – through setting specific Goals and Deliverables – how they will implement each of these Actions within their individual contexts. Reconciliation Australia has developed RAP Actions that focus on strengthening relationships, respect, and opportunities within domains of in the classroom (teaching, learning, curricula), around the school (the ethos within the school or service gates) and with the community (the links beyond the school gates). The relationships, respect, and opportunities framework was adapted from that utilised by Reconciliation Australia's Work Place RAP Framework. The incorporation of the in the classroom, around the school, and with the community domains are an adaptation of the World Health Organisation's Health Promoting Schools approach (WHO, 2017; WHO and UNSECO, 2018).

Once the above steps have been completed, draft RAPs can be submitted, via the Narragunnawali platform, to the school Principal or early learning service Director for approval and then onwards to Reconciliation Australia for final review and publication. To ensure that RAPs remains a living document, Working Groups undertake a refreshment process every 12 months after their initial RAP publication. At a minimum, RAP refreshment requires re-completion of the Reflection Survey and re-submission of the RAP for review and republication. As part of the refresh process schools and early learning services may also make updates to their Vision for Reconciliation statement and Action commitments, based on learnings from the previous 12 months.

Professional learning

Narragunnawali professional learning resources are designed to build staff awareness and understanding of Aboriginal and Torres Strait Islander histories, cultures, and contributions; and to support the implementation of reconciliation initiatives. Each resource is linked to the National Quality Standard (early learning) and the Australian Professional Standards for Teachers (primary and secondary) and is also aligned with one or more Narragunnawali RAP Actions.

The Narragunnawali platform also includes: a terminology guide (to assist in using respectful and inclusive language); a RAP Working Group Kit; a suite of subject-specific resource guides; a webinar series; reconciliation related news updates; and some information for Initial Teacher Education staff and students

Curriculum resources

The Narragunnawali curriculum resources can be used as a part of implementing RAP Actions, or they can be accessed independently as standalone resources. As well as being aligned to one or more RAP Actions, each resource is aligned to the Early Years Learning Framework and the Australian Curriculum (primary and secondary). The Narragunnawali Platform also includes a suite of subject specific resource guides.

National awards

The Narragunnawali Awards were first held in 2017, and represent the first national awards program to celebrate reconciliation excellence in the education sector. These biennial Awards are designed to recognise and celebrate educational environments that have demonstrated exceptional commitment to reconciliation in the classroom, around the school and with the community. There are currently two award categories: one for schools, and one for early learning services. Nominations for the most recent Awards closed May 2019 and the Award Winners in both the Schools and Early Learning categories were announced in November 2019.

1.3. The Narragunnawali evaluation to date: Phase 1

Phase 1 of the evaluation commenced in early 2015 and concluded in December 2017. It was completed through a genuine collaboration between the CSRM and Reconciliation Australia; using mixed quantitative and qualitative methods. Phase 1 of the evaluation concentrated on important aspects of a program that was in its infancy; program growth, why particular schools or early learning services are more or less likely to engage in the program, change in engagement patterns across time, and rates of progress through the stages of developing a RAP.

Phase 1 of the evaluation made use of as much existing (administrative and program) data as possible. Broadly, the main evaluation findings can be summarised into the following categories: administrative data; reflection surveys; interviews and other qualitative data; and external datasets.

1.3.1. Phase 1: Administrative data

Administrative data findings demonstrated a significant increase in engagement with RAPs from 357 schools and early learning services recorded as having a RAP in September 2015 to 1 230 in November 2017. Throughout the Phase 1 evaluation period, regression-style analysis of administrative data suggested consistent associations between some demographic type factors and participation in the Narragunnawali RAP development process. Higher rates of participation were found amongst: Catholic schools (as compared to government schools); single sex schools; boarding schools; those in relatively advantaged areas; and schools and early learning services in South Australia, the Australian Capital Territory, and Queensland. There were lower rates of participation amongst schools for students with additional needs; those in outer regional and remote Australia (compared to major cities or inner regional areas); and Western Australia. Notably, between November 2015 and April 2017 the percentage of the community (in which a school or early learning service was located) that identified as Indigenous was positively associated with Narragunnawali RAP participation. However, at November 2017, this finding was no longer significant. This is as a particularly noteworthy finding as it is important that reconciliation programs (especially Narragunnawali) is not assumed to be the responsibility of Aboriginal and/or Torres Strait Islander people only.

1.3.2. Phase 1: Reflection surveys

One hundred and twenty-nine schools and early learning services completed the Reflection Survey in both 2016 and 2017. Analysis of this linked data found there is strong evidence that those schools who continue to engage with Narragunnawali increase the types of activities that the program is designed to support. Specifically, there was some positive change observed across time within these schools for: awareness of Australian Curriculum sections relevant to reconciliation; undertaking reconciliation relevant discussion at staff meetings; participation in National Reconciliation Week/NAIDOC week activities; facilitation of Welcomes to Country; and consultation with Aboriginal and Torres Strait Islander advisory groups. There were also positive changes observed for collaborating with Aboriginal and Torres Strait Islander people in preparing and delivering lessons; Acknowledging of Country; and staff undertaking Aboriginal and Torres Strait Islander cultural competency, proficiency or awareness training. Promisingly, there were very few schools or early learning services whose performance on key outcome measures decreased over time.

While acknowledging the encouraging findings of the time-linked Reflection Survey data; single time point data analysis also elucidated areas for improvement. The 2017 Reflection Survey data totalled 447 responses, and analyses indicated that while there was considerable self-reported knowledge of and confidence in incorporating Aboriginal and Torres Strait Islander content within the school or early

learning service, Narragunnawali has the potential to do much more in facilitating direct interaction with Aboriginal and Torres Strait Islander communities (where appropriate). Promisingly, 54% of 2017 respondents indicated that their school or early learning service had an anti-racism strategy; however, 28.2 per cent of respondents were unsure and unable to answer the question as to whether or not their school or early learning service had a specific strategy for taking action against racism. In general, the analysis of 2016 data found considerable uncertainty among the RAP Working Group (who filled out the Reflection Survey) about what RAP Action activities are happening within their school or early learning service.

This Reflection Survey analysis also found that certain school or early learning service characteristics predict reconciliation activities and outcomes. Teachers at Independent schools were less likely to be knowledgeable of Aboriginal and Torres Strait Islander histories, cultures and perspectives and significantly less likely to Acknowledge Country. Schools or early learning services in relatively disadvantaged areas were less likely to display an Aboriginal and/or Torres Strait Islander flag. (This may be a resourcing issue.) Teachers in schools or early learning services in areas with a high Indigenous population were more likely to have undertaken cultural competency, proficiency or awareness training.

1.3.3. Phase 1: Data collection, interviews, and other qualitative data

This data included the Baseline Reconciliation in Schools and Early Learning Services Survey (Baseline RISELESS), interviews with five schools and early learning services, and an analysis of Vision for Reconciliation statements.

The RISELESS survey was designed for the Narragunnawali evaluation to capture the attitudes and confidence of teachers and others working in schools and early learning services, with a particular focus on reconciliation, and incorporating Aboriginal and Torres Strait Islander histories and cultures in the curriculum. Participants were a convenience sample and the survey was advertised by Reconciliation Australia and via Facebook. Analysis of Baseline RISELESS data showed that most respondents agreed that Aboriginal and Torres Strait Islander peoples hold a unique place as First Australians (93.9%), and that their cultures are important to Australia's identity (93.9%), and that respondents feel proud of Aboriginal and Torres Strait Islander cultures (89.0%). A very large majority agreed that racism against Aboriginal and Torres Strait Islander people was a problem in Australia (82.9%), though few agreed that it was a problem in their school or early learning service (13.4%). There was a fairly high self-reported level of knowledge about Aboriginal and Torres Strait Islander histories and cultures (61.7%) and confidence in teaching about these topics (53.1%).

The analysis of interview data from five case study schools and/or early learning services showed that, while participation in reconciliation processes and outcomes were unique in each school or early learning service, there was a genuinely positive view of Narragunnawali and RAPs. Interviewees reported that the program provided a framework and the impetus to actively progress and sustain reconciliation activities within their school or early learning service. Interviewees also identified a number of perceived barriers to engagement with Narragunnawali, the most common of which were: no knowledge of whether Aboriginal or Torres Strait Islander students attended their school or early learning service; gaining and maintaining staff 'buy in'; not knowing how they can respectfully embed Aboriginal and Torres Strait Islander cultures and histories throughout the curriculum; and time constraints.

Vision for Reconciliation statements for 633 schools and early learning services were analysed, and a randomised subsample extracted for more detailed thematic content analysis. While heterogeneous in content, Vision for Reconciliation statements indicated a strong commitment and confidence in the

ability of the school or early learning service to achieve its aims. Themes frequently occurring in analysed vision statements included: respect and recognition; partnerships and relationships; and learning about Aboriginal and Torres Strait Islander histories and cultures.

1.3.4. Phase 1: External datasets

Cross sectional analysis of the Longitudinal Study of Indigenous Children (LSIC, Australian Government, Department of Social Services, 2020) 2015 Release 8.0, was undertaken to investigate possible differences in reconciliation based activities undertaken, teacher experience, and Aboriginal and Torres Strait Islander student experience between schools that have (or are developing) a RAP and schools that do not have a RAP. LSIC is administered by the Australian Department of Social Services, and data is collected annually from Aboriginal and Torres Strait Islander children, their families, and their teachers and educators

Four hundred and fourteen responding teachers (all primary school teachers), in the 2015 Release 8.0 survey, were asked whether their school currently has a RAP. The majority of teachers responded that they did not know (57.6%); and there was a higher percentage that had a RAP or were working on one (26.3%) compared to those reporting that did not have a RAP (16.1%). Schools with (or working on) a RAP were more engaged with Indigenous education aspects of school (e.g. endorsing “(An) Indigenous Education Worker/s is/are employed at the school.”).

Findings suggest that there may be an association between schools with (or developing) a RAP, and level of teacher engagement in some reconciliation relevant activities. For schools with (or developing) a RAP teachers were more likely (compared with those from schools without a RAP) to: ‘...have participated in Indigenous community events in the community where I teach’; ‘...have had a conversation with Indigenous community members outside of school in the community where I teach’; and ‘...have met with the parent or caregiver of an Indigenous student I teach’.

No differences were found for Aboriginal and Torres Strait Islander student outcomes. This may suggest it will take some time before the presence of a RAP impacts Indigenous student outcomes.

1.4. The Narragunnawali evaluation to date: Phase 2

In 2017, Reconciliation Australia commissioned the ANU Centre for Social Research and Methods (CSRM) and the Social Research Centre’s Qualitative Research Unit to undertake Phase 2 of the evaluation of Narragunnawali: Reconciliation in Education.

To coincide with the launch of the updated Narragunnawali platform, an updated Phase 2 Evaluation Framework for Narragunnawali was developed (Biddle, 2017). This framework is designed, primarily, to address the aims and objectives of Narragunnawali as articulated by Reconciliation Australia and supported by the five dimensions of reconciliation identified in The State of Reconciliation in Australia report (2016). The updated Evaluation Framework also takes into consideration the expansion of the program, as well as, key learnings gained from Phase 1 of the evaluation.

1.4.1. Phase 2: Narragunnawali Research Report #9 – The Importance of Reconciliation in Education

This report summarised existing evidence and presented new analyses that shed light on the role of reconciliation in education. Analysis of the Longitudinal Study of Indigenous Children (LSIC) data (this dataset is described under Phase 1: External Datasets section above). This research extended Phase 1 analysis of LSIC data. Results found a negative and statistically significant relationship between

racism/discrimination experienced and cognitive development among the Indigenous Australian population. There was a larger negative effect found for the experience of racism/discrimination on a student's self-perception and on their mathematics test scores. These findings provide evidence for a relationship between racism/discrimination and poorer developmental and learning outcomes for Aboriginal and Torres Strait Islander Australians. Such findings further impress the needs for reconciliation initiatives in our schools and early learning services.

1.4.2. Phase 2: Narragunnawali Research Report #10 – Revisiting Visions for Reconciliation

This paper presented an analysis of RAP Vision for Reconciliation statements prepared by a large sample of schools and early learning services as part of their Narragunnawali RAP development process. This research updated and extended Phase 1 analysis of Vision statements. Using each school/early learning service as the unit of analysis, computational text analysis was used to relate each Vision for Reconciliation statement to the five dimensions of reconciliation identified in the 2016 The State of Reconciliation in Australia report: Race Relations; Equality and Equity; Institutional Integrity; Unity; and Historical Acceptance.

The words that were found to be most likely used in Vision for Reconciliation statements (Aboriginal, Torres Strait Islander, reconciliation, community, people/peoples, children, culture/cultures, and respect). The Equality and Equity dimension of reconciliation was found to have the greatest similarity with the Vision for Reconciliation statements, and the Historical Acceptance dimension was found to be the least similar. The Race Relations, Institutional Integrity and Unity dimensions fell somewhere in between. This analysis also found that Vision statements which had been reviewed by the Narragunnawali team, were more closely aligned with the five dimensions of reconciliation (compare to those that had not yet been reviewed). This likely indicates that the review process, implemented in April 2017, is effective in improving the substantive focus of Vision statements towards Reconciliation Australia's meanings and measures of reconciliation,

1.4.3. Phase 2: Narragunnawali Research Report #11 – Hearing from Schools and Early Learning Services

The most recently released evaluation report presented a detailed summary of qualitative (online discussion board and in-depth interview) findings and analysis of responses to the Reconciliation Action Plan Reflection Survey (RAP-RS). Online discussion board data was collected between July and August 2018, and interviews were undertaken between November 2018 and April 2019. Qualitative data was collected from a total of 40 participants representing schools and early learning services engaged with Narragunnawali RAP development and implementation. The analysis of Reconciliation Action Plan Reflection Survey (RAP-RS) responses, updated and extended the Phase 1 reflection survey analysis. RAP-RS data was extracted on the 30th of June 2019 with information available for between 2,219 and 2,273 schools and early learning services, depending on the RAP-RS question.

Qualitative participants reported that engagement with Narragunnawali increased their confidence in addressing reconciliation and driving meaningful change within their schools and services. The high quality and usability of the Narragunnawali platform and resources generally encouraged engagement with the program. The qualitative, and to some extent the RAP-RS, findings suggest that RAP Actions related to activities the 'Around the School' were typically more easily and successfully implemented compared to those situated within the 'In the Classroom' or 'With the Community' components of the Narragunnawali RAP framework.

Qualitatively, school and early learning service staff reported that staff were encouraged to use the Narragunnawali professional learning and curriculum resources, and there was a positive consensus regarding the quality of these resources. However, most participants reported that, in practice, they did not frequently access the resources.

Some qualitative participants described meaningful engagements with Aboriginal and Torres Strait Islander community members that enriched RAP processes, while others discussed the challenges they experienced in developing these relationships. RAP-RS findings suggested that, in practice, the rate at which teachers and educators invite Aboriginal and Torres Strait Islander people to be involved in classroom and activities at schools and early learning services was relatively low.

Positive outcomes in students' awareness and attitudes and enthusiasm towards Narragunnawali emerged from the qualitative data analysis.

2. Report #12: Broader Context and Presentation of Findings

2.1. The broader Context: Unprecedented disruption to Australian schools and early learning services 2019-2020

Since the release of the most recent evaluation report in August 2019, there has been unprecedented disruption to Australian schools and early learning services. These disruptions have been primarily caused by the COVID-19 global pandemic and the 2019-2020 Australian bushfire season (known now as the Black Summer bushfires (Australian Government National Bushfire Recovery Agency, 2020)

By the end of February 2020, bushfires had burned more than 10 million hectares of land in southern Australia, (which is more than the combined area burned in the historically significant Black Saturday 2009 and Ash Wednesday 1983 bushfires) (Commonwealth Scientific and Industrial Research Organisation, 18 February 2020). The Black Summer bushfire season forced many schools and early learning services to make operational changes in order to protect children, families, and staff from smoke and/or the fire itself. A number of schools and early learning services in the hardest-hit areas were required to close (mostly for shorter periods of time). The impact of the fires on Australia's schools and early learning services was so significant that the Australian Government department of Education, Skills and Employment issued health information and support to affected communities (Australian Government, Department of Education, Skills and Employment, 2020). More broadly, the impact of the fires on Australian communities was such that, on 6 January 2020, the federal government established the National Bushfire Recovery Agency to lead and coordinate a national response to rebuilding (Australian Government National Bushfire Recovery Agency, 2020). Some further disruption was caused to school and early learning services' operations as a result of temporary closures due to storm and flooding events primarily impacting parts of New South Wales (Australian Broadcasting Commission, 10 February 2020) and Queensland (Australian Broadcasting Commission, 14 February 2020). These events largely occurred in February 2020, and in some instances compounded disruptions caused by the Black Summer bushfires.

As many of Australia's schools and early learning services were just starting to recover from the Black Summer bushfires, the Australian Government announced it would be implementing the Coronavirus Emergency Response Plan (The Prime Minister of Australia, 27 February 2020). This announcement was ahead of the World Health Organisation's assessment, released on 11 March 2020, that the disease should be characterised as a pandemic (WHO, 2020). Throughout the COVID-19 pandemic, the Prime Minister, following advice from the Australian Health Protection Principal Committee (AHPPC), has repeatedly reiterated that schools can safely remain open (The Prime Minister of Australia, 20 March 2020; 18 March 2020). Nonetheless, it has also been acknowledged by the newly formed National Cabinet (representing all state and territory governments), that during the COVID-19 crisis, remote delivery of education services may be needed (The Prime Minister of Australia, 16 April 2020).

Provision of early learning and school education are primarily the responsibility of state and territory jurisdictions. As such, while working collaboratively under the National Cabinet, there are nuances between jurisdictions in the ways in which education has been delivered throughout the COVID-19 pandemic. To some extent, Australian families took matters into their own hands, and responded to the pandemic ahead of any formal state or territory government policy or framework for remote learning.

One report suggested that by late March 2020, school absenteeism was greater than 50 percent nationwide (Australian Broadcasting Commission, 25 March 2020). Schools in all states and territories responded rapidly, delivering education in online and in other remote learning formats. Part of the Australian Government's response to the COVID-19 crisis included temporary access to free early learning education for Australian families (The Prime Minister of Australia, 03 April 2020). This provided relief for families in need of childcare and with reduced incomes as a result of the government's broader response to COVID-19. Nonetheless, early learning services were required to adjust, not only to highly unpredictable attendance rates resulting from community safety concerns, but also to a new funding structure.

While school term one 2020 was highly disrupted, schools in each state and territory returned to whole of school face-to-face teaching towards the beginning of the second school term for 2020. Each jurisdiction returned at somewhat differing paces, reflecting local circumstances related to COVID-19 transmission, with most implementing a graded return. However, due to a significant increase in COVID-19 cases, schools in metropolitan Melbourne and the Mitchell Shire returned to remote and flexible learning for school term 3 (except for Years 11 and 12 and students enrolled in specialist schools). <https://www.education.vic.gov.au/about/department/Pages/coronavirus.aspx>

2.2. Presentation of Current Report Findings

Findings of this report are presented in two main sections. In Section One we use Narragunnawali program data, other administrative data, and 2011 census data to assess growth in program uptake, as well as factors associated with program engagement. In this section of the report we revisit and extend upon analysis presented in the first summary report of the evaluation (Biddle, 2015) and provide suggestions for program improvements. In Section Two, we explore the feasibility and utility of Google Analytics as an informative data source for the ongoing evaluation of Narragunnawali. In this section, initial substantive Google Analytics findings are presented alongside conclusions and recommendations regarding the possible future use of Google Analytics for evaluative purposes. Findings for both sections are reported against each of the relevant Phase 2 Research Evaluation Outcome Questions (Biddle, 2017).

Data used to prepare Section One of this report is representative of the period inclusive of both the Black Summer bushfires and some major COVID-19 related disruptions to the education sector. Data used to prepare Section Two of this report is largely representative of the period inclusive of Black Summer bushfires and prior to major COVID-19 related disruptions to Australia's schools and early learning services. Appendix A includes brief additional analysis of some Google Analytics platform engagement measures during the COVID-19 crisis to date.

3. Section One: Using Administrative, Program, and Census Data. Tracking Growth in Uptake and Factors Associated with RAP Engagement.

In this section of the report we revisit and extend upon analysis first presented in the inaugural summary report for the evaluation of Narragunnawali (Biddle, 2015). This data analysis explores growth in uptake of RAPs by schools and early learning services, as well as different school or early learning service and community factors that are associated with program engagement.

3.1. Findings

3.1.1. Growth in the uptake of RAPs

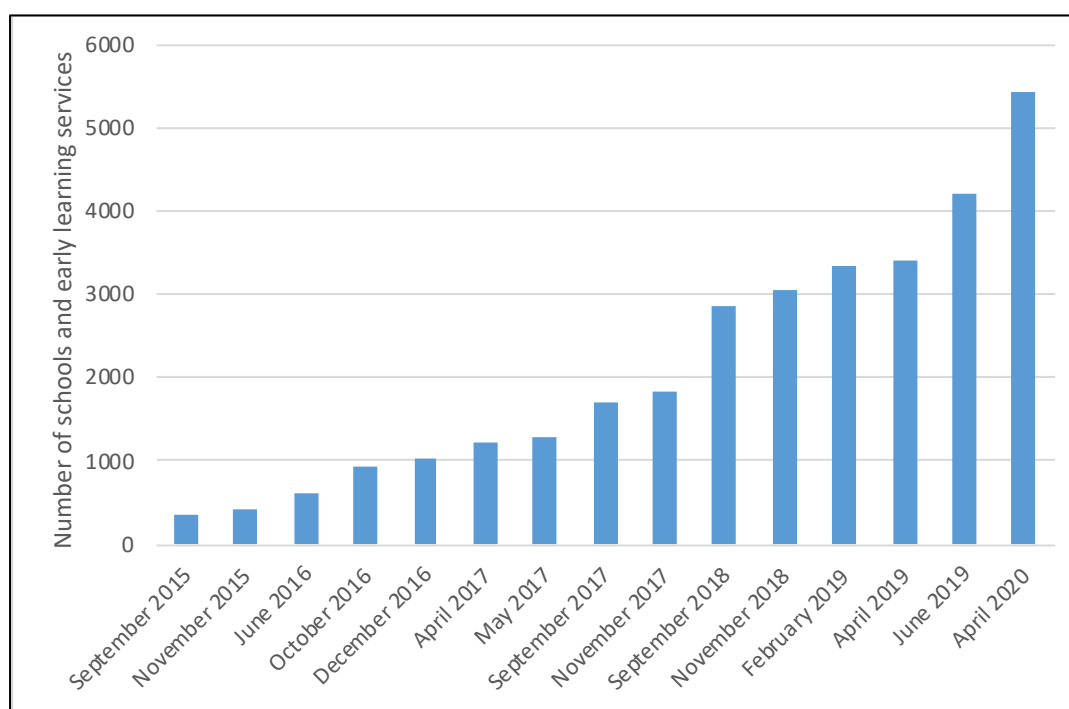
1. Growth, uptake and usage

1a. To what extent are new schools and early learning services engaging with Narragunnawali, and what are some of the factors that motivate this engagement?

Growth in the number of schools and early learning services choosing to develop a Narragunnawali RAP can be tracked using data that is routinely collected via the Narragunnawali online platform. Reconciliation Australia provided the authors with this program data.

Narragunnawali became available to schools and early learning services in 2014. The research evaluation of Narragunnawali commenced in September 2015; at which time there were 357 schools and early learning services recorded as having engaged with developing a RAP via the Narragunnawali online platform. On April 6th 2017, an updated version of the Narragunnawali platform was launched (Version 2.0) and at that time there were 1,230 schools and early learning services engaged in developing a RAP. By the end of October 2017 this had increased to 1,684 schools and early learning services. The number of schools and early learning services engaged with a Narragunnawali RAP had further increased to 4,211 by the end of June 2019; with an apparent large increase after National Reconciliation Week (May 27 – June 3) of that year. Despite very significant disruption to the education sector primarily as a result of the Black Summer bushfires and the COVID-19 pandemic (as outlined above in section 2.3), growth in engagement with Narragunnawali RAPs has continued. At the end of April 2020, the total number of schools and early learning services with a RAP was 5,758. Figure 1 provides a visual summary of the growth in numbers of schools and early learning services engaging with Narragunnawali RAPs across the life of the program.

Figure 1. Number of schools and early learning services developing a Narragunnawali RAP – September 2015 to April 2020



3.1.2. Factors associated with initiating a RAP and progressing the RAP beyond draft stage

1. Growth, uptake and usage

1a. To what extent are new schools and early learning services engaging with Narragunnawali, and what are some of the factors that motivate this engagement?

1f. How does the above vary by the type of school and early learning service, and what are some of the factors that may explain this variation?

We will now consider which the factors are associated with whether or not Australian schools and early learning services were engaged with a Narragunnawali RAP (by April 2020). As outlined at section 1.2.1 Reconciliation Action Plans above, a school or early learning service first develops a draft RAP, which can then be submitted to the school Principal or early learning service Director for approval and then finally onwards to Reconciliation Australia for review and publication. To ensure that RAPs remains a living document, Working Groups undertake a refreshment process every 12 months after their initial RAP publication. If the Refresh process is not completed, the RAP reverts from published status back to draft status.

Firstly, we will explore factors associated with a school or early learning service having engaged with the RAP process in any capacity. That is, factors associated with having a RAP with either draft or published status, without distinguishing between these different stages. Through this analysis we will also, in a descriptive manner, assess whether the strength or direction of these relationships have changed over the life-time of the program. Secondly, we will investigate which factors may be associated with a school or early learning service moving past the draft stage towards a published RAP status (this includes RAPs submitted to the Principal/Director, RAPs pending review from Reconciliation Australia, and RAPs that have been made or public). This will be a single point-in-time analysis, using all relevant data available at 30 April 2020.

The data

The dataset used in these analyses is constructed from three sources. Firstly, the Narragunnawali team provided a data extract including information about all schools and early learning services in Australia. This extract included location, gender mix, and socioeconomic status for a total of 9,957 schools and 10,108 early learning services. Secondly, the Narragunnawali team also provided an extract of Narragunnawali program administrative data pertaining to all schools and early learning services that had started developing a RAP between 18 May 2015 and 30 April 2020. This data extract included a variable indicating whether the RAP is currently in draft or published status. Lastly, information about the community in which the school or early learning service is located was sourced and customised from the 2011 Census of Population and Housing Australian Bureau of Statistics, Statistics (2011). The two data extracts, both containing information about individual schools and early learning services, will be linked by exact match of name, postcode, and state/territory. Then the data extract of 2011 Census data will be linked by local government area.

Analyses undertaken

Two separate regression analyses will be undertaken. The first regression analysis will explore any changes over time in the relationship between school/early learning service and community factors associated with engagement in the RAP development process (to any degree). Data for all Australian schools and early learning services were included in this analysis. This type of analysis was first undertaken and published in the inaugural November 2015 Narragunnawali Evaluation report (Biddle, 2015). Comparing the November 2015 results with analysis of the same variables taken at different time points throughout the life of the program, will provide some information about any changes in the direction and strength of these relationships. Table 1 provides a summary of results for this analysis.

For the first regression analysis, the outcome variable is whether a school or early learning service has commenced RAP development. It is captured as a binary variable, with a value of one if the school or early learning service has commenced a RAP and zero if it has not. Independent variables (or the factors that may be associated with RAP development) are captured either at the level of the school/early learning service or at the level of the Local Government Area in which the school/early learning service is located. Those captured at the level of the school or early learning service are: school sector, education level, gendered attendance, boarding status, and state or territory. Independent variables captured at the level of the Local Government Area are: remoteness classification, percentage Indigenous identifying, percentage born overseas, and Socio-Economic Indexes for Areas (SEIFA) percentile. Percentage Indigenous identifying, percentage born overseas, and SEIFA percentile are treated as continuous variables. All other independent variables are treated as categorical, with groups outlined in Table 1 below.

The second regression undertaken explores factors associated with schools and early learning services moving from a draft towards a published RAP status. Only data for schools and early learning services that had, by 30 April 2020, engaged with the RAP development process were included in this analysis. The outcome variable for the second analysis is RAP status; defined as draft status or published status (including submitted and pending). RAP status is captured as a binary variable, with a value of one if a RAP has a published (submitted or pending) status and zero if it has a draft status (on 30 April 2020). The independent variables included in this second analysis are the same as those included in the first regression analysis described directly above. Table 2 provides a summary of results for this analysis.

Understanding the results tables

Results for the first and second regression analyses described above are presented in Tables 1 and 2.

In Table 1, the results from the inaugural November 2015 Narragunnawali Evaluation report (Biddle, 2015) are presented in the first two columns, followed by October 2016, September 2017, September 2018 and the most recent April 2020 results in the final two columns. Variable base cases are listed directly under the table.

Results are presented as marginal effects and level of statistical significance. Marginal effects describe the difference in probability of having engaged with RAP development compared to a school or early learning service with the base case group. Level of significance shows the probability of obtaining a result, of at least the same magnitude, if in reality there is no difference between groups. For example, looking at Table 1 April 2020 results for school sector, the marginal effect for the catholic school group is 0.0414 with a 1% level of significance indicated by three stars (***). The base group for the school sector is public schools. This result shows that, at 30 April 2020, we can be 99% sure that catholic schools are 4.14% more likely to have engaged in the RAP development process compared to public schools (holding all other variables measured constant). Now, if we look back across to the November 2015 results for the same catholic school group, we can see that (in 2015) catholic schools were 1.35% more likely to have engaged with the RAP process compared with public schools. It is possible that the difference in likelihood of engaging with the RAP process, between public and catholic schools, may have increased from November 2015 (catholic schools 1.35% more likely) to April 2020 (catholic schools 4.14% more likely). However, this descriptive increase has not been inferentially tested.

Results presented in table 2 results can be interpreted in a similar fashion to those summarised in Table 1; except that Table 2 results include data from just one point-in-time (30 April 2020) and only for schools and early learning services that had (by 30 April 2020) engaged with the RAP development process. For example, the Table 2 results for school sector suggest that, at 30 April 2020, we can be 95% confident that independent schools are 6.30% more likely to progress a RAP passed draft stage, when compared to government schools.

The results outlined in Table 1 and Table 2 do not suggest causality, rather they depict associations.

Primary findings

Factors associated with RAP engagement

Apart from an increase in the predicted probability of the base case institution (reflecting the overall growth in participation documented in Figure 1), the results show a general level of stability in the factors associated with schools or early learning service engagement with the RAP development process (at least since mid-2016). There were higher rates of participation amongst: catholic schools (compared to government schools); child care centres (compared to preschools)¹; secondary schools or combined schools (compared to primary only schools); single sex schools (compared to co-ed schools); those located in major cities (compare to those in regional or remote area), and boarding schools (compared to non-boarding schools). By April 2020, schools and early learning services in South Australia, the Australian Capital Territory, and Queensland tend to have higher rates of engagement, with those in

¹ There is some uncertainty around the difference between a preschool and a child care centre, with the distinction often hard to make at an individual early learning service. In general, preschools have a greater focus on the delivery of early learning curricula and tend to deliver services to children in the year or two before full-time schooling. Child care centres tend to provide services to a greater age range of students, over a greater number of hours per day. It should be noted, however, that many child care centres deliver preschool programs for older age children.

Victoria and Western Australia having relatively lower rates. New Wales, Tasmania and Northern Territory institutions fall somewhere in between.

While there was general stability in which factors are associated with RAP engagement, some of the marginal effects for significant findings appear to have increased over time. There are two findings that may warrant careful attention from a Narragunnawali program perspective. Firstly, there appears to be a widening gap in likelihood of RAP engagement by remoteness status. For the first time, schools and early learning services in major cities are now (as of April 2020) more likely to engage with the RAP development process compared to those in inner regional areas. The differences in engagement between schools and early learning services located in major cities and those in even more remote areas (outer regional, and remote or very remote) appear to have increased over the life of the program. Secondly, there has been an increase in the strength of association between SEIFA and likelihood of RAP engagement. Schools and early learning services located in more advantaged areas are increasingly more likely to engage with the RAP development process. It is important to note that while the absolute strength of this relationship is very small, it has doubled since September 2017 and quadrupled since November 2015.

It appears there has been an increase the likelihood of engagement for catholic schools' over time, compared with government schools. It also appears that the likelihood of RAP participation has increased over time for single sex schools compared to co-ed schools. It is not immediately clear what might explain these finding.

Finally, between November 2015 and April 2017, the percentage of the community (in which a school or early learning service was located) that identified as Indigenous was positively associated with Narragunnawali RAP participation. However, at November 2017, this finding was no longer significant and it remains non-significant at each of the more recent data time points, including April 2020. This is likely a particularly noteworthy finding as it is important that reconciliation programs (especially Narragunnawali) are not assumed to be the primary responsibility of (or directed principally towards) Aboriginal and/or Torres Strait Islander people.

Factors associated with the RAP status beyond draft

The results, summarised in Table 2, suggest that relatively few of factors measured are associated with RAP status (draft or published/submitted/pending) captured on 30 April 2020. Nonetheless, there were a small number of significant findings. Queensland schools and early learning services appear to be more likely to move beyond draft RAP status and childcare centres were also more likely to progress past draft status (compared to primary schools). Additionally, there is reasonable evidence to suggest that independent schools have a higher likelihood of completing the RAP development process (compared to government schools).

The reasonably low number of significant relationships between factors measured and RAP status, suggests there may be important within-school/early learning service variation not captured by the current dataset. As an example (holding all else constant), there may be greater differences that account for RAP status between the individual schools located in outer regional Australia, compared with any differences between outer regional and major city schools. It is also important to note that these findings provide information about factors associated with RAP status at a single point-in-time. They do not provide information about how these factors may be associated with likelihood of program disengagement over time (i.e. moving from published to draft status). It is possible that, in future analysis, accounting for program disengagement may improve the robustness of findings.

At 30 April 2020 no remote schools nor special schools had RAP progressed past draft status, and so they were excluded from the analysis.

Table 1. Factors associated with RAP engagement

	November 2015		October 2016		September 2017		September 2018		April 2020	
Variable	Marginal effect	Significance	Marginal effect	Significance	Marginal effect	Significance	Marginal effect	Significance	Marginal effect	Significance
Catholic school	0.0135	***	0.0161	***	0.0363	***	0.0434	***	0.0414	***
Independent school	-0.0027		-0.0055		-0.0040		-0.0008		0.0003	
Special school	-0.0084		-0.0115	*	-0.0188	**	-0.0199	*	-0.0210	
Child care centre	0.0022		0.0134	***	0.0155	***	0.0308	***	0.0579	***
Preschool	-0.0087	***	-0.0053		-0.0035		0.0218	***	0.0150	*
Combined year levels	0.0253	***	0.0314	***	0.0293	***	0.0327	***	0.0323	***
Secondary school	0.0142	***	0.0221	***	0.0224	***	0.0328	***	0.0411	***
Single sex school	-0.0001		0.0084	**	0.0285	***	0.0356	***	0.0691	***
Boarding school	0.0272	***	0.0324	***	0.0544	***	0.0987	***	0.0744	***
School in inner regional Australia	-0.0021		0.0039		0.0003		0.0003		-0.0149	**
School in outer regional Australia	-0.0101	***	-0.0130	***	-0.0149	***	-0.0290	***	-0.0457	***
School in remote or very remote Australia	-0.0097	***	-0.0172	***	-0.0221	***	-0.0346	***	-0.0660	***
Per cent of area identified as being Indigenous	0.0003	*	0.0004	*	0.0002		0.0005		0.0007	
Per cent of area born overseas	-0.0002	*	0.0001		0.0001		0.0000		-0.0003	

Table 1. Factors associated with RAP engagement continued.

	November 2015		October 2016		September 2017		September 2018		April 2020	
Variable	Marginal effect	Significance	Marginal effect	Significance	Marginal effect	Significance	Marginal effect	Significance	Marginal effect	Significance
SEIFA advantage/disadvantage percentile of area*	0.0001	***	0.0001	**	0.0002	***	0.0003	***	0.0004	***
Victoria	0.0015		0.0009		-0.0002		-0.0188	***	-0.0226	***
Queensland	0.0131	***	0.0112	***	0.0361	***	0.0350	***	0.0502	***
South Australia	0.0284	***	0.0581	***	0.0902	***	0.0667	***	0.0775	***
Western Australia	-0.0023		-0.0081	**	-0.0128	***	-0.0285	***	-0.0231	***
Tasmania	-0.0045		-0.0117	*	-0.0041		-0.0045		-0.0110	
Northern Territory	0.0159		0.0045		-0.0055		-0.0094		-0.0097	
Australian Capital Territory	0.0757	***	0.0671	***	0.0788	***	0.0779	***	0.0642	***
Predicted probability of base case	0.0138		0.0244		0.0380		0.0576		0.0980	
Pseudo R-Squared	0.0771		0.0514		0.0584		0.0578		0.0571	
Sample size	19,953		19,961		20,057		19,953		19,953	

Note: The base case school is a Government, Infants/Primary, that is co-ed and does not provide boarding and located in New South Wales in a major city. The base-case school has the average values for the three continuous variables from Table 1 in Research Report #1. A higher value for the SEIFA advantage/disadvantage index represents a more socioeconomically advantaged area. Those coefficients that were statistically significant at the 1% level of significance are labelled ***, those significant at the 5% level of significance only are labelled **, and those significant at the 10% level of significance only are labelled *..

Table 2. Factors associated with the RAP status beyond draft (at 30 April 2020)

Variable name	Marginal effect	Significance
Catholic school	-0.0023	
Independent school	0.0630	**
Special school		
Child care centre	0.0379	***
Preschool	0.0106	
Combined year levels	-0.0242	*
Secondary school	-0.0168	
Single sex school	0.0220	*
Boarding school	0.0011	
School in inner regional Australia	-0.0052	
School in outer regional Australia	0.0095	
School in remote or very remote Australia		
Per cent of area identified as being Indigenous	-0.0013	
Per cent of area born overseas	0.0000	
SEIFA advantage/disadvantage percentile of area*	0.0000	
Victoria	0.0106	
Queensland	0.0297	***
South Australia	-0.0156	*
Western Australia	0.0083	
Tasmania	-0.0100	
Northern Territory	-0.0129	
Australian Capital Territory	-0.0011	
Predicted probability of base case	0.0336	
Pseudo R-Squared	0.0539	
Sample size	3,046	

Note: The base case school is a Government, Infants/Primary, that is co-ed and does not provide boarding and located in New South Wales in a major city. The base-case school has the average values for the three continuous variables from Table 1 in Research Report #1. A higher value for the SEIFA advantage/disadvantage index represents a more socioeconomically advantaged area. Those coefficients that were statistically significant at the 1% level of significance are labelled ***, those significant at the 5% level of significance only are labelled **, and those significant at the 10% level of significance only are labelled *. Special schools were excluded from the analysis as none had progressed beyond the draft stage.

3.2. Conclusions and suggestions

3.2.1. Conclusions

The number of schools and early learning services engaging with Narragunnawali RAPs has increased over the duration of the program. While overall engagement of the education sector with Narragunnawali RAPs has increased across the life-time of the program, growth in uptake has not been uniform across the sector. Two findings may be particularly salient to consider from a program development perspective, as they highlight areas of potential access inequity for Australian children. Schools and early learning services located in higher SEFIA communities engage with the program at higher rates (compared to low SEFIA communities) and, while small in absolute value, this disparity has increased between November 2015 and April 2020. Schools and early learning services located in major cities are more likely to engage with Narragunnawali RAP development, compared to those in less urban settings. The gap between major city schools and services, and those located in outer regional, remote, and very remote areas appears to have increased over the duration of the program.

Relatively few of the factors measured (school sector, education level, gendered attendance, boarding status, state or territory, remoteness classification, percentage Indigenous identifying, percentage born overseas, and SEIFA percentile) were associated with RAP status (dichotomous draft or published/submitted/pending) on 30 April 2020. Nonetheless, a small number of significant findings were made. Queensland institutions (compared to those in NSW), childcare centres (compared to primary schools), and independent schools (compared to government schools) all had a higher likelihood of progressing past draft RAP status towards published RAP status (as on 30 April 2020). The relatively low number of significant relationships found between factors measured and RAP status may suggest either that important within-school/early learning service variation is not captured by the current dataset and/or that accounting for program disengagement (moving from published to draft status) over time (rather than relying solely on single point-in-time data), may improve the robustness of these findings.

3.2.2. Suggestions

- Consider ways in which the Narragunnawali team and program can connect with schools and early learning services located outside of major urban settings.
- Consider engaging with schools and early learning services in lower SEFIA communities to better understand what resourcing and support may assist their access to the Narragunnawali program. It is likely outside of the Narragunnawali team's sphere of influence to directly address the needs of these schools and service. Nonetheless, the Narragunnawali team and Reconciliation Australia may be well placed to advocate these needs to government and other peak education bodies (with capacity to address them).
- Future program evaluation would likely benefit from an investigation of changes to the RAP status of individual schools and early learning services over time.

4. Section Two: Google Analytics as a Data Source for the Ongoing Evaluation

In this section we explore the feasibility and utility of Google Analytics as an informative data source for the ongoing evaluation of Narragunnawali. Though thus far not used for evaluation purposes, Google Analytics are already being collected for the Narragunnawali web platform. As such Google Analytics presents a readily available and resource efficient data source. While reconciliation in education has a very 'real world' presence, the Narragunnawali program is primarily delivered online. Google Analytics therefore provides an avenue for examining users' online behaviour as they access and engage with the program.

Google Analytics is a digital analytics product that uses JavaScript tracking code to collect information about user interaction with webpages (Analytics, 2020f). The Google Analytics platform stores and collates the website user information it collects; auto-generating a range of aggregated reports (Analytics, 2020e). Google Analytics also allows some individual (person or event) level data to be extracted, using it's 'point and click' interface. Unless stated otherwise, the findings presented in this section of the report were generated by extracting data from Google Analytics, and then undertaking basic analysis using excel and/or STATA. The specific area of the Google Analytics platform from which data were extracted is documented within each of the following subsections. While Google Analytics does implement sampling when data limits are reached (Analytics, 2020d), only unsampled data was used for analysis in this report.

4.1. Findings

In this section of the report, we will first present our Google Analytics data findings, as they relate to the relevant Phase 2 Research Evaluation Outcome Questions (Nicholas Biddle, 2017). There are limitations to these findings which we will then clearly outline. Finally, we will provide recommendations regarding possible future use of Google Analytics in the evaluation of Narragunnawali, as well as suggestions for program improvement.

4.1.1. Number of Narragunnawali platform visitors

1. Growth, uptake and usage

1a. To what extent are new schools and early learning services engaging with Narragunnawali, and what are some of the factors that motivate this engagement?

1c. What is the depth of engagement of schools and early learning services?

The Narragunnawali Google Analytics as currently configured does not allow of individual visitor to the platform to be reliably identified as representing a specific school or early learning service. However, Google Analytics for Narragunnawali does currently provide information about the volume of visitors to the platform

The data

Google Analytics for the Narragunnawali platform currently identifies unique visitors to the platform by sending a small piece of data that is stored on visitors' computers via their web browser. This process is commonly referred to as browser stored cookies, and is widely used (Google Analytics, 2020c). Google Analytics tracks unique web browsers accessing the platform and assumes each is a unique individual visitor to Narragunnawali This method for approximating unique individual visitors to the

platform has limitations. If the same person accesses the platform through multiple devices and/or web browsers, they will be identified by Google Analytics as a different unique visitor for each device and/or browser used. Further, if a single device and browser is used by multiple people, Google Analytics will identify these people as a single unique visitor to the platform (Google Analytics, 2020c). A fuller explanation of these limitations is outlined at section 4.2 Data Limitations. Google Analytics does not currently directly capture whether visitors are affiliated with a RAP nor whether they have created a sign-in account for the Narragunnawali platform (enabling them to access all curriculum and professional learning resource materials).

Table 3 below shows the estimate number of unique visitors to the Narragunnawali platform annually from 2015 till 2019. The second column of Table 3 simply includes the number of unique visitors identified. The third column adjusts the number of unique visitors to exclude visitors for which all visits to the platform (within the calendar year) were 'bounce sessions'. As currently configured, a bounce session is identified if a visitor lands on the Narragunnawali platform and does not navigate to another page before leaving. A zero second session length is assigned to all bounce sessions because Google Analytics for Narragunnawali uses visitor navigation between different pages to calculate length of time spent on the site. By definition, single page sessions do not include any navigation between website pages, and therefore Google Analytics has no information by which to estimate the length of time a visitor spent on the platform (Google Analytics, 2020b). When interrogating available individual level data, the authors found there were some unique visitors for which Google Analytics had assigned an average session duration of zero seconds, even though the visitor had navigated between platform pages during a session, and they had not been identified as having a 'bounce' session(s). It is not clear why this is the case. These visitors are identified in column four of Table 3.

It should be noted that the authors undertook all data analyses for Section Two of this report, to account for non-bounce zero second average session durations and visitors with very short average session durations. However, for simplicity and readability, these additional analyses will only be reported where they impact our primary findings.

Figure 2 below shows the estimate number of unique monthly visitors to the Narragunnawali platform from January 2015 till February 2020. The solid line shows the total number unique visitors to the platform and the broken line shows an estimated number of unique visitors excluding those whose only visit(s) for the month were bounce sessions.

For both Table 3 and Figure 2, data used to generate 2015-2017 values were exported, at an aggregate level (annually for Table 3 and Monthly for figure 2), from Google Analytics' Audience Overview report. Data used to generate 2018-2020 values were exported, at the level of the individual unique visitor for each month, from Google Analytics' User Explorer. Currently this individual level data is being retained by Narragunnawali Google Analytics for 26 months (Google Analytics, 2020g). As such, this limits the period for which we are able to report findings for this data.

Primary findings

The number of unique visitors to the Narragunnawali platform each month has increased over the lifetime of the program; particularly from January 2017 onwards. The growth in monthly visitor numbers is summarised in Figure 2 below and is also reflected in the number unique visitors to the platform on an annual basis (Table 3).

If we look at the month of January as an example; Google Analytics recorded a total 132 unique visitors to the platform in January 2015. During January 2016, a total of 105 unique visitors were captured, and for January 2017 there were 181 visitors. Visitation for the month of January then increased significantly

for the next three years; January 2018 saw 2305 visitors, 4940 visitors were captured during January 2019, and January 2020 saw 10248 visitors to the platform.

As might be expected, there is an increase in visitor numbers coinciding with National Reconciliation Week (held annually between May 27 and June 3). There also appears to be a reduced number of visitors during the December-January period each year. This might also be expected, as it coincides with the school holiday period and also is a time of year that many Australians (including school and early learning staff) take annual leave.

Estimate numbers of unique visitors to the platform should be interpreted cautiously. Narragunnawali Google Analytics' use of browser stored cookies to approximate unique visitors may result in higher estimates than is truly the case.

Visually, the widening gap between the solid and dashed lines indicates that the proportion of all visitors to the platform that have bounce sessions (bounce visitors) may be increasing. If we again use the month of January as an example; in January 2018, 38.09% of all unique visitors that month were bounce visitors. During January 2019, the proportion of bounce visitors had increased to 43.74% of all visitors, and by January 2020 bounce visitors made up 60.75% of all unique visitors to the platform. There are a number of valid interpretations for this finding.

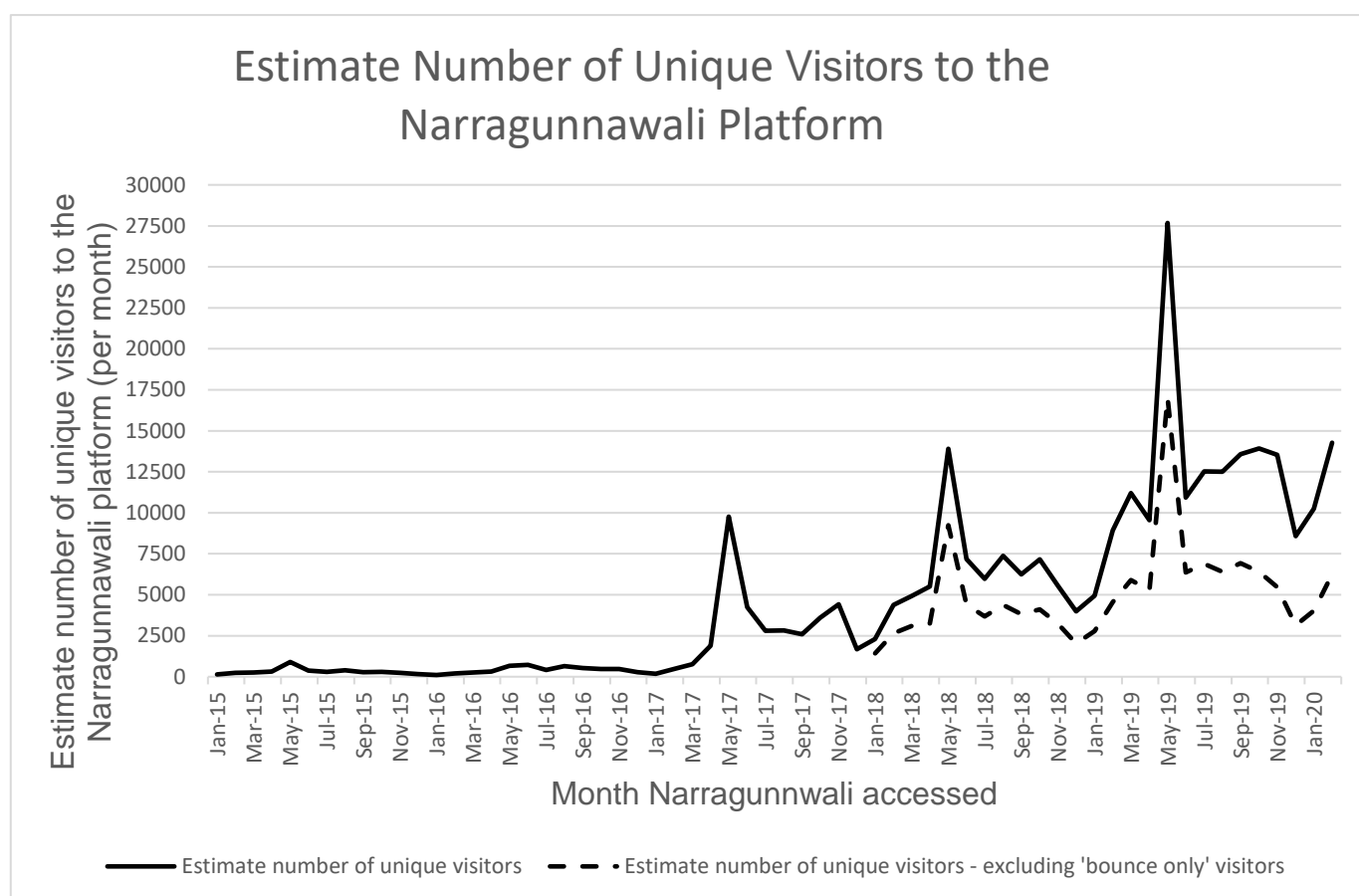
It is possible that the increase in bounce or single-page session visitors each month indicates that an increasing proportion of visitors are engaging with the platform in a more superficial manner (as indicated by lack of navigation between pages). Another interpretation could be that a higher proportion of visitors are accessing the platform through means that deliver them directly to the content they wish to view and Narragunnawali Google Analytics is not currently able to measure the depth of this (single page) engagement accurately. Regardless, this finding indicates a change in the behaviour of Narragunnawali platform visitors.

Table 3. Annual number of visitors to the Narragunnawali Platform

Year	Unique visitors	Unique visitors excluding 'bounce' only visitors	Unique visitors excluding 'bounce' only and other zero second session duration visitors
2015	3366		
2016	4368		
2017	29730		
2018	62932	37599	37496
2019	128074	64171	63669

Notes: Data used to generate 2015-2017 values were exported, at a yearly aggregate level, from Google Analytics' Audience Overview report. Data used to generate 2018-2020 values were exported, at the level of the individual unique user for each month, from Google Analytics' User Explorer. Currently this individual level data is being retained by Narragunnawali Google Analytics for 26 months. As such, the period for which we are able to report this data is limited to this timeframe.

Figure 2. Estimate number of visitors to the Narragunnawali platform each month



Notes: Data used to generate 2015-2017 values were exported, at a month aggregate level, from Google Analytics' Audience Overview report. Data used to generate 2018-2020 values were exported, at the level of the individual unique user for each month, from Google Analytics' User Explorer. Currently this individual level data is being retained by Narragunnawali Google Analytics for 26 months. As such, the period for which we are able to report this data is limited to this timeframe.

4.1.2. Number of Narragunnawali Sessions

1. Growth, uptake and usage

1a. To what extent are new schools and early learning services engaging with Narragunnawali, and what are some of the factors that motivate this engagement?

1c. What is the depth of engagement of schools and early learning services?

It is important to again note that Google Analytics for Narragunnawali does not currently enable individual visitors to the platform to be reliably identified as representing a specific school or early learning service. However, Google Analytics for Narragunnawali does currently provide information about the volume of visitor sessions on the platform.

The data

As currently configured by default settings, Google Analytics considers a 'session' to be the interactions that a visitor has with the Narragunnawali platform within a 30-minute frame. If a visitor is inactive for 30 minutes or more, Google Analytics attributes any future activity to a new session. For any visitors that leave the Narragunnawali web platform and then return (using the same browser) within 30

minutes; their activity is counted as one session. User engagement that extends across midnight, is split into two sessions (Analytics, 2020h).

In Figure 3 below, the solid line depicts the total number of sessions on the Narragunnawali platform each month. The dotted line shows the same data, excluding bounce sessions. Recall that (as currently configured) Google Analytics considers bounce sessions to be those were a visitor lands on the Narragunnawali website and does not navigate to another page before leaving.

Primary findings

Figure 3 appears to show steadily increasing numbers of Narragunnawali platform sessions each month; particularly from January 2017 onwards. Again looking at the month of January as an example, Google Analytics recorded a total 185 sessions for January 2015. During January 2016, a total of 173 sessions were captured, and 267 sessions for January 2017. Narragunnawali sessions for the month of January then increased significantly for the next three years. January 2018 saw 3531 sessions, 7277 sessions were captured during January 2019, and January 2020 saw 13683 sessions on the platform. Figure 3 appears to show peak number of Narragunnawali sessions associated with National Reconciliation Week and lower session numbers over summer school holidays (December – January period). This is consistent with Figure 2.

Figure 3 may also show a visual widening of the gap between solid and dashed lines, from mid-2017 onwards. This likely indicates that the proportion of bounce or single page sessions has increased over time. In January 2017 bounce sessions accounted for 31.84% of all sessions for the month. In 2018 bounce sessions accounted for 40.33% of the month's sessions, and in January 2019 42.37%. Then during January 2020, there appears to be a significant uptick in bounce sessions, which accounted for 57.05% of sessions for the month.

There are a number of valid interpretations for our finding that there is likely an increase in the proportion of bounce sessions each

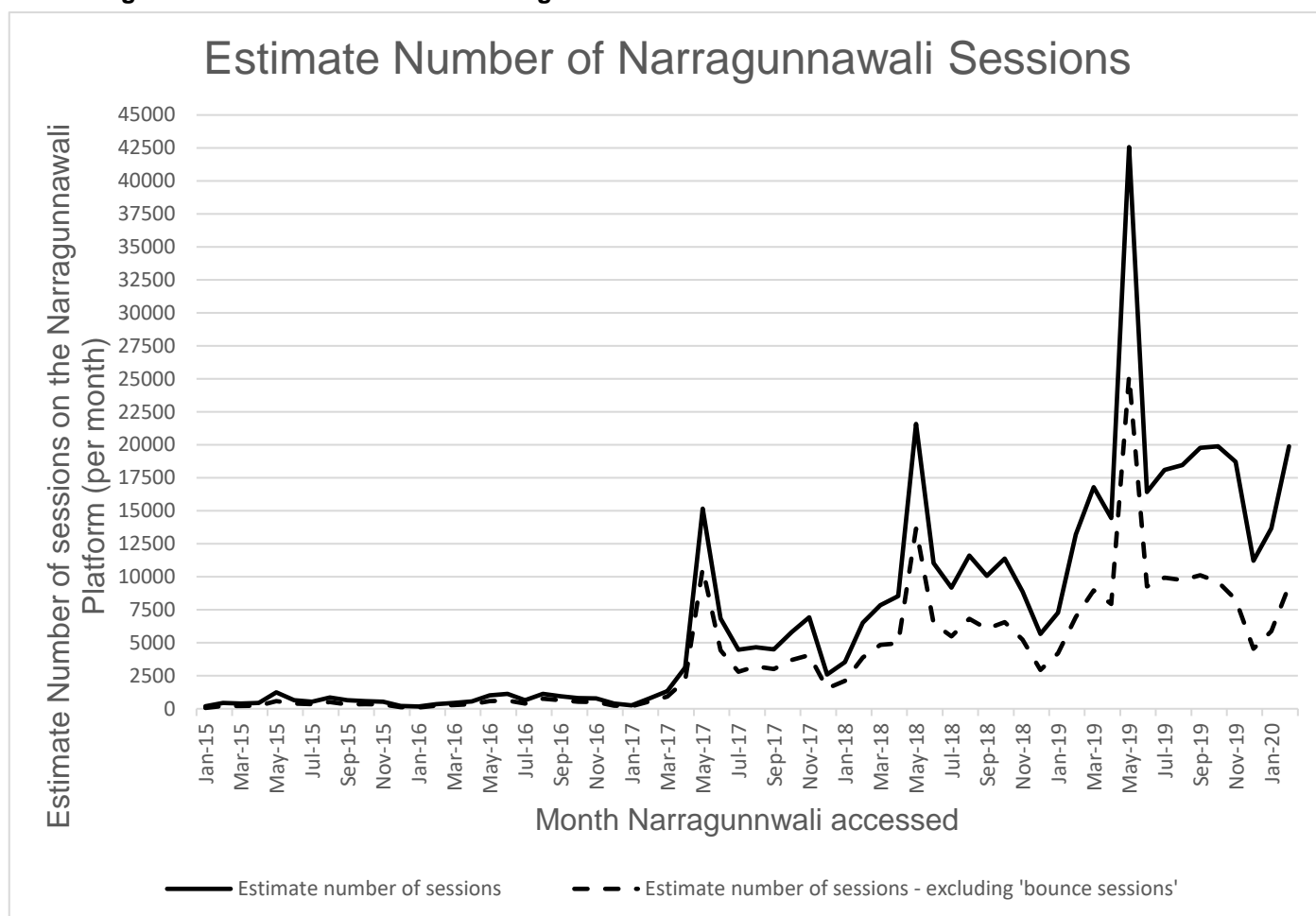
Similar to our finding that the proportion of single page only visitors per month may be increasing (in section 4.1.1 above), there are a number of valid interpretations for our finding that there is likely also an increase in the proportion of bounce sessions each month. This change in visitor sessions behaviour may indicate a reduced depth of engagement with the platform. Alternatively, it could be that a higher proportion of sessions are initiated through links that connect visitors directly with desired content. Google Analytics, as currently configured, is not able to measure the depth of engagement with a single page.

Table 4. Annual number of sessions on the Narragunnawali Platform

Year	Number of session	Session number excluding 'bounce' sessions
2015	6706	3685
2016	8349	5245
2017	56497	37209
2018	115856	69035
2019	216915	114857

Notes: Data used to generate 2015-2017 values were exported, at a year aggregate level, from Google Analytics' Audience Overview report. Data used to generate 2018-2020 values were exported, at the level of the individual unique user for each month, from Google Analytics' User Explorer. Currently this individual level data is being retained by Narragunnawali Google Analytics for 26 months. As such, the period for which we are able to report this data is limited to this timeframe.

Figure 3. Estimated Number of Narragunnawali Sessions each Month



Notes: Data used to generate 2015-2017 values were exported, at a month aggregate level, from Google Analytics' Audience Overview report. Data used to generate 2018-2020 values were exported, at the level of the individual unique user for each month, from Google Analytics' User Explorer. Currently this individual level data is being retained by Narragunnawali Google Analytics for 26 months. As such, the period for which we are able to report this data is limited to this timeframe.

4.1.3. Frequency of Narragunnawali Platform visitation

1. Growth, uptake and usage

1b. Are existing schools and early learning services continuing to engage after the initial implementation of a RAP, and what are some of the reasons why/why not?

Google Analytics for Narragunnawali can provide information about the frequency with which individual visitors return to the Narragunnawali platform.

The data

Table 5 summarises data showing the percentage of unique visitors to the Narragunnawali platform that undertook between one and ten separate sessions during 2018 and then during 2019. The second and third columns show results using data for all sessions, and the fourth and fifth columns show results when excluding data for single page (bounce) sessions. Due to Google Analytics data retention settings this data is no longer available for years prior to 2018. This limits our ability to explore any changes across time.

Primary findings

Results displayed in Table 5 suggest a clear majority of unique individuals visited the Narragunnawali platform just once during the 2018 and 2019 calendar years. While some small effect may be present for 2019, removing bounce sessions from the data does not appear to have a large impact on the percentages of visitors returning to the platform within the calendar year. The likelihood of a visitor undertaking single page or bounce sessions is not strongly related to the number of times a visitor returns to the Narragunnawali platform within a calendar year. It is important acknowledge the limitations of using browser stored cookies to estimate unique visitors to the platform. As previously outlined, this is the current measure of unique visitors used by Narragunnawali Google Analytics. If the combined number individuals accessing the Narragunnawali platform from multiple devices/browsers and with periodic clearing of browser stored cookies is larger than the number of individual's sharing access with others from a single browser; the results will be skewed towards a higher percentage of visitors having lower number of sessions. The results will be further skewed if individual access the platform clear their browser cookies. Currently, it is not possible to control for this in the current data set. However, possible future changes to the configuration of Narragunnawali Google Analytics account could make real improvements to accuracy of unique visitor data.

Table 5. The number of visitor session per year

Number of sessions	Percentage of unique visitors		Percentage of unique visitors – excluding bounce sessions	
	2018	2019	2018	2019
1	71.66	75.55	71.00	72.27
2	14.30	12.79	14.77	14.39
3	5.55	4.74	5.74	5.34
4	2.87	2.28	3.04	2.62
5	1.66	1.31	1.51	1.56
6	0.94	0.82	0.91	0.92
7	0.64	0.57	0.66	0.68
8	0.45	0.38	0.51	0.43
9	0.36	0.30	0.35	0.34
10	0.25	0.22	0.29	0.26
>10	1.32	1.04	1.22	1.19

Notes: Data used to generate this table were exported, at the level of the individual unique user for each month, from Google Analytics' User Explorer.

4.1.4. Average session duration

1. Growth, uptake and usage

1c. What is the depth of engagement of schools and early learning services?

While Google Analytics for Narragunnawali does not currently enable platform visitors to be reliably identified as representing a specific school or early learning service, it does provide information about the length of time visitors engage with the site. The length of time an individual spend on the platform may be used as a proxy for level of engagement.

The data

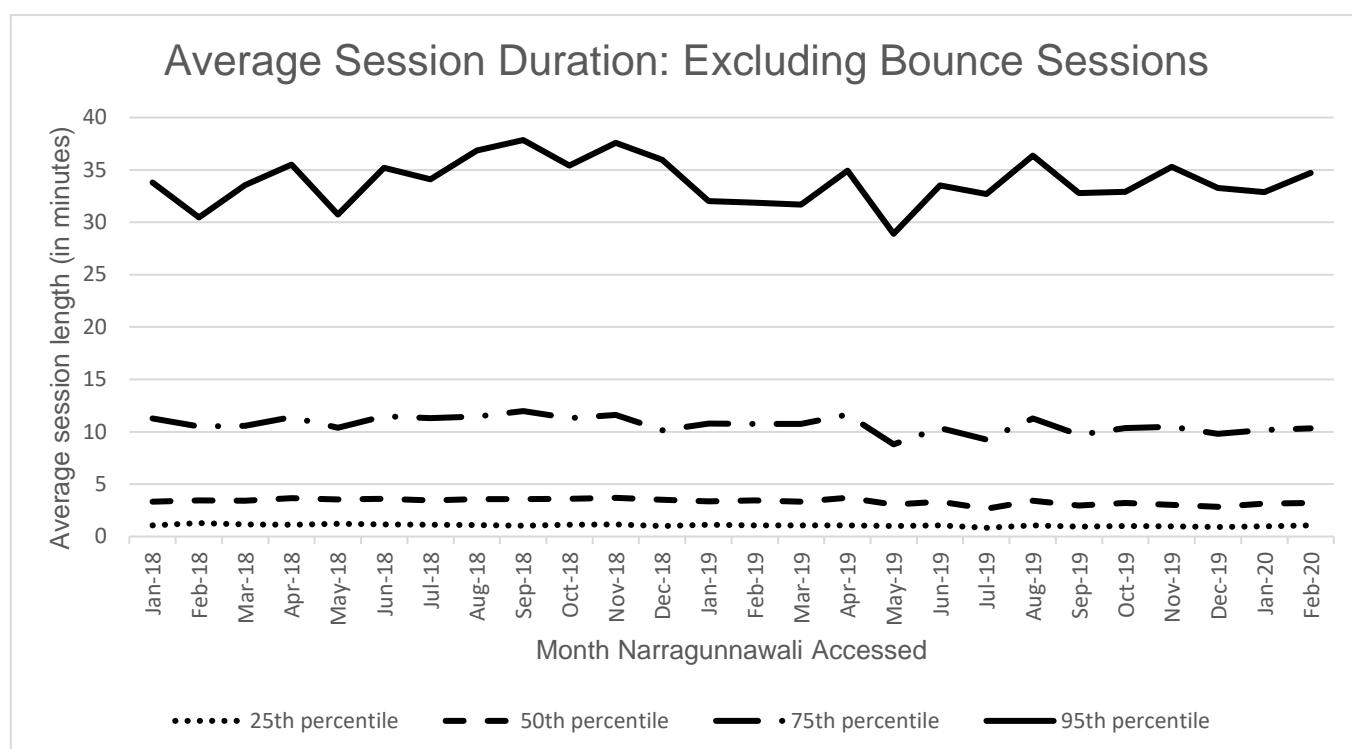
Google Analytics for Narragunnawali provides estimates for the length of time visitors spend on the platform each session. Length of session (session duration), may be used as a proxy for visitors' level of engagement with the platform. As currently configured, Google Analytics, assigns single page or bounce sessions a duration of zero seconds. As already outlined, this is because Google Analytics for Narragunnawali currently uses visitor navigation between different pages to calculate length of time spent on the site. By definition, single page sessions do not include any navigation between pages, and therefore Google Analytics has no information by which to estimate the length of time a visitor spent on the platform (Analytics, 2020h). For this reason, we have excluded single page or bounce sessions when calculating average session durations for Narragunnawali visitors. However, even for sessions where a visitor has navigated between pages, Google Analytics is currently unable to estimate the length of time spent on the page that the visitor exits the platform from (Google Analytics Analytics, 2020i). This data limitation means that, even after excluding single page sessions from the data, estimate average session duration will be shorter than the actual visitor session length. Again, Google Analytics data retention settings means this data is no longer available for years prior to 2018.

Primary findings

The estimate visitor average session duration for the 2018 calendar year was 8.89 minutes (standard deviation 13.89), and for 2019 it was 8.34 minutes (standard deviation of 13.58). Standard deviation is a measure of how close or wide spread data points are clustered around the mean. The large standard deviation (relative to the size of the mean), indicates that there is large variation in the length of time that visitors spend on the Narragunnawali platform. By proxy, this may also indicate large variations in depth of engagement with the program.

Figure 4 provides a summary of visitors' average session duration for each month from January 2018 till February 2020 inclusive. Presenting this data by 25th, 50th, 75th, and 95th percentiles provides further information about the distribution of the data. For example, if we look at the data presented for January 2018: only 5% of visitors spent more than an average of 33.8 minutes on the platform, 25% spent more than an average of 11.27 minutes, 50% spent more than 3.33 minutes, and 75% spent more than 1.05 minutes on the platform. The data available appear to be skewed towards shorter average session durations. As already discussed, there are important caveats to interpreting this data; namely that single page sessions have been excluded and, as currently configured, Google Analytics estimates for session duration do not include time spent on the last page of the visitor's session.

Figure 4. Estimate average session duration each month.



Notes: Data used to generate figure 4 were exported, at the level of the individual unique user for each month, from Google Analytics' User Explorer.

4.1.5. How visitors find the Narragunnawali and where they enter the platform

The Data

Google Analytics collects data about the source of visitors to the Narragunnawali platform. Source refers to the of the search engine the visitor used to find Narragunnawali or the website/link that referred them to the platform (GoogleAnalytics, 2020j). Google Analytics also collects data about the first page visitors see when accessing the Narragunnawali platform. This is referred to as the 'landing page'

Primary Findings

Table 6 provides a summary of the higher volume sources of visitors to the Narragunnawali platform for the 2019 calendar year. By far the largest source category is direct entry and unknown source. Direct entry refers to visitors that typed a Narragunnawali URL directly into the browser or used a bookmark to navigate to the platform. However, unfortunately, this category also includes visitors that Google Analytics has no referral data for. Reducing the number of visitors whose source is categorised as direct/unknown will likely improve the usefulness of this data for program evaluation into the future.

Looking at some of the higher volume sources of Narragunnawali visitors, Reconciliation SA and Reconciliation NSW are both Narragunnawali Regional Engagement program partners. Australian Children's Education and Care Quality Authority and the Australian Department of Education, Skills and Employment are both workplace RAP partners. As such, it logically follows that these organisations would facilitate traffic to the Narragunnawali platform. Narragunnawali is a Reconciliation Australia initiative and so it is also unsurprising visitors find the platform via the Reconciliation Australia website. A somewhat notable finding is that after direct entry/unknown, Google search, and Reconciliation Australia, there appears to be a steep drop-off in percentage of sessions directed to the Narragunnawali platform by any other source throughout the 2019 calendar year.

Table 7 summarises the most common landing pages for the Narragunnawali platform during the 2019 calendar year. Unsurprisingly, the Narragunnawali Home page and the Login into the Narragunnawali Platform page are the pages that visitors most commonly land on.

Table 6. Highest volume sources of Narragunnawali visitors throughout 2019

Source of Visitors to the Narragunnawali Platform	Percentage of 2019 sessions
Direct entry AND Unknown source	39.53
Google search	29.40
Reconciliation Australia	12.20
Facebook	2.78
Bing search	2.70
Early Childhood Resources Hub (ecrh.edu.au)	1.22
Reconciliation SA (reconciliationsa.org.au)	0.89
Reconciliation NSW (schoolsreconciliationchallenge.org.au)	0.72
NSW Department of Education (myemail.det.nsw.edu.au)	0.66
Australian Children's Education and Care Quality Authority (wehearyou.acecqa.gov.au)	0.61
Australian Department of Education, Skills and Employment (education.gov.au)	0.51

Notes: Data summarised in Table 6 was exported, on a calendar year aggregate level, from Google Analytics source/medium section which is listed under Acquisition on the point and click interface. Data was collated across different URL sources for Facebook and Twitter only. (Different URL sources for Facebook and Twitter largely indicated the type of device the visitor was using).

Table 7. User session Narragunnawali Platform Landing page throughout 2019

Narragunnawali Platform Landing page	Percentage of 2019 sessions
Narragunnawali Home page https://www.narragunnawali.org.au/	22.83
Login into the Narragunnawali Platform https://www.narragunnawali.org.au/users/login	11.41
What is a RAP https://www.narragunnawali.org.au/raps/what-is-a-rap	6.44
Curriculum Resources (home page) /curriculum-resources	5.47
Terminology Guide https://www.narragunnawali.org.au/about/terminology-guide	4.54
Narragunnawali Awards 2019 (home page) https://www.narragunnawali.org.au/awards	2.68
Professional Learning (home page) https://www.narragunnawali.org.au/professional-learning	2.14
Actions (home page) https://www.narragunnawali.org.au/rap/actions	2.02
RAP summary page https://www.narragunnawali.org.au/rap/summary	1.23
Acknowledgement of Country RAP Action page (overview) https://www.narragunnawali.org.au/rap/actions/1/acknowledgement-of-country	1.22
Cultural Safety and respect in the Classroom professional learning resource (overview) https://www.narragunnawali.org.au/professional-learning/90/cultural-safety-and-respect-in-the-classroom	0.98
Who has a RAP? (map) https://www.narragunnawali.org.au/raps/who-has-a-rap	0.94

Notes: Data used to generate this table was exported, on a calendar year aggregate level, from Google Analytics Behaviour, Site Content, Landing page section of the point and click interface.

4.1.6. Resource use

3. Effectiveness of resources

a. Which resources and what type of resources within Narragunnawali are being utilised and engaged with, and why? What are some of the impacts/outcomes of engaging with these resources?

Google Analytics for Narragunnawali provides data for the number of times each URL associated with the platform is viewed. We used this data to explore how frequently different resources available on the platform are being accessed.

The data

Using Google Analytics, we are able to generate some estimates for how frequently different content within the Narragunnawali platform is being accessed. Ideally, this type of data would be generated through use of Google Analytics' content groups (Google Analytics, 2020k). However, as far as the authors can determine, this has not yet been set-up for the Narragunnawali platform. As such, the advanced search function on the Behaviour, Site Content All Pages report was used to group content on the basis of URL text. This function was used to undertake three searches. First, the authors searched for the number of pageviews for pages that include the phrase "curriculum-resource" within the URL. Then the authors search for pages with URLs that include "professional-learning". Finally, a search was undertaken for pages that include "RAP" and do not include "curriculum-resource" or "professional-learning" within the URL. Although imprecise, this search provides information about three broad categories of Narragunnawali platform content: curriculum resources, professional learning resources, and Reconciliation Action Plan (RAP) pages. This method for grouping content is tentative and further work towards more robustly grouping platform content would be beneficial if the Narragunnawali team decides to pursue Google Analytics as a program evaluation tool.

Figure 5 shows the total number of pageviews for all of the pages within each of these three content groupings, monthly from April 2017 till February 2020. Data are presented from April 2017 onwards as this is the date from which aggregate data across the three groups is available.

Tables 8, 9, 10 then summarise the number pageviews, during 2019, for each of the ten most frequently visited curriculum resource, professional learning resource, and RAP pages respectively.

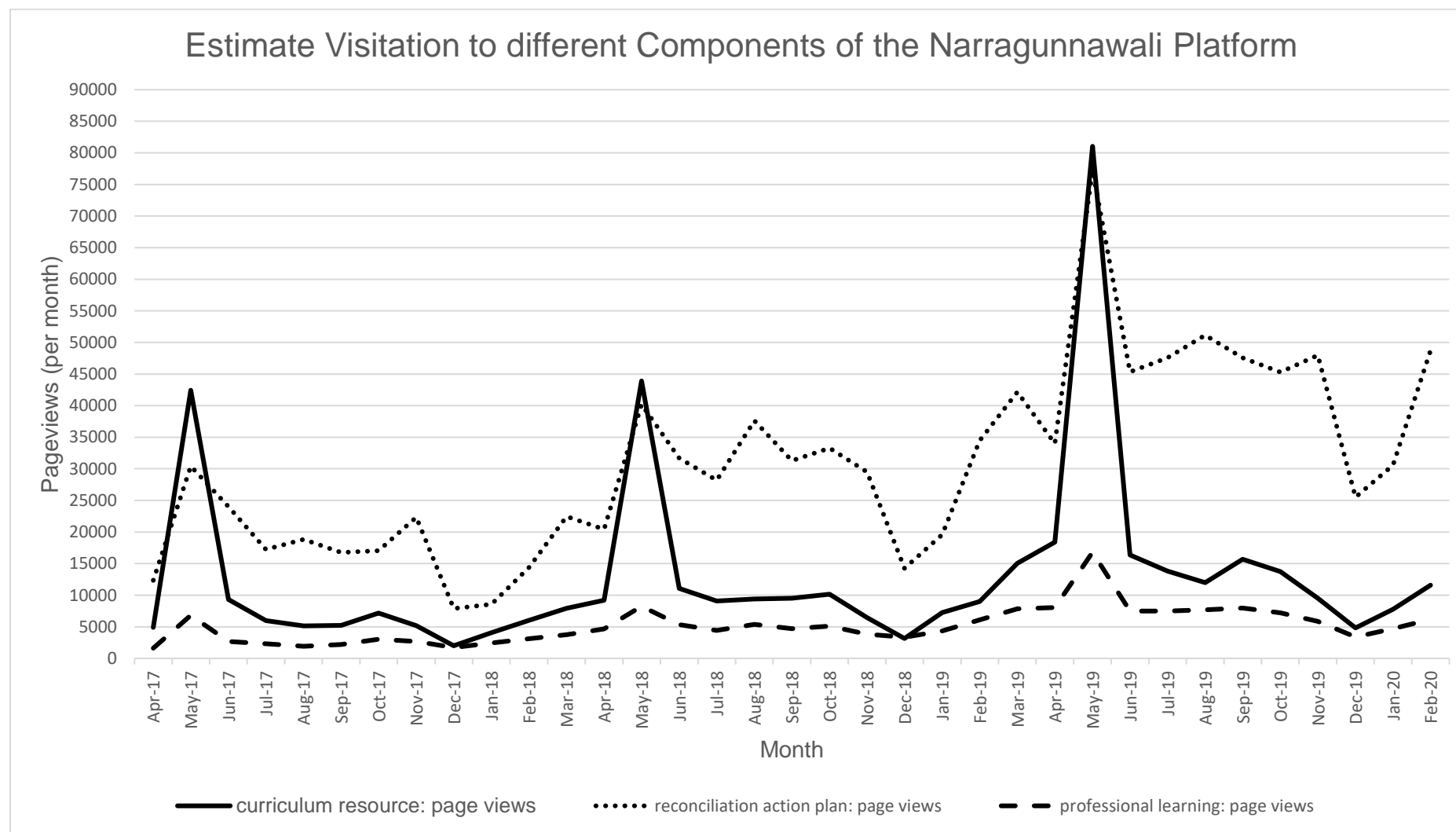
Primary findings

Data summarised in figure 5 shows that, overall, professional learning resources appear to be utilised less frequently compared to the curriculum resources and RAP pages. For most months of the year, RAP pages appear to be used more frequently than curriculum resource pages. However, this difference is reduced and then eliminated for a period of time roughly in line with National Reconciliation Week each year. It appears there may be an annual pattern to the utilisation of each of these groups of pages.

Table 8 summarises the most frequently viewed pages within the curriculum resource content group, during 2019. Six out of these ten pages are specifically relevant to early learning services. One is specifically relevant to primary schools and one is specifically relevant to secondary schools. Two pages are connected to the general 'Curriculum Resources' tab on the Narragunnawali platform, without any particular search filters having been applied, or any individual curriculum resources having been clicked into. The majority of Narragunnawali RAPs are held by early learning services, and this may, in part, account for why six of the ten most frequently viewed curriculum resource pages were specifically relevant to early learning services.

Tables 9 and 10 below summarise the most frequently viewed pages within the Professional Learning and RAP content groups, for 2019.

Figure 5. Number of monthly pageviews for different groups of Narragunnawali platform content



Notes: See in text for specification of data used in this graph.

Table 8. The ten most frequently viewed “curriculum-resource” pages during 2019

Curriculum Resource pages	Number of 2019 pageviews
Curriculum Resources landing page https://www.narragunnawali.org.au/curriculum-resources	55860
A Matter of Perspective (Early Learning) curriculum resource https://www.narragunnawali.org.au/curriculum-resource/130/a-matter-of-perspective-early-learning	6990
Building Belonging (Early Learning) curriculum resource https://www.narragunnawali.org.au/curriculum-resource/110/building-belonging-early-learning	5189
Curriculum Resources landing page with search filtered for early learning resources only https://www.narragunnawali.org.au/curriculum-resources?year[]=1	4898
Let’s Talk about the Theme for NRW, 2019 (Early Learning) curriculum resource https://www.narragunnawali.org.au/curriculum-resource/183/lets-talk-about-the-theme-for-nrw-2019-early-learning	3625
Curriculum Resources landing page – the second page of the full list of resources https://www.narragunnawali.org.au/curriculum-resources?page=2	3617
Colours as Cultural Symbols (Early Learning) curriculum resource https://www.narragunnawali.org.au/curriculum-resource/85/colours-as-cultural-symbols-early-learning	3199
Collaborative Art Project (Early Learning) curriculum resource https://www.narragunnawali.org.au/curriculum-resource/38/collaborative-art-project-early-learning	3109
ABC – Right Wrongs (Primary) curriculum resource https://www.narragunnawali.org.au/curriculum-resource/179/abc-right-wrongs-primary	3063
A Sense of Place (Secondary) curriculum resource https://www.narragunnawali.org.au/curriculum-resource/129/a-sense-of-place-secondary	2980

Notes: See in text for specification of data used in this table

Table 9. The ten most frequently viewed “professional-learning” pages during 2019

Professional Learning pages	Number of 2019 pageviews
Professional Learning landing page https://www.narragunnawali.org.au/professional-learning	26444
Cultural Safety and Respect in the Classroom professional learning resource https://www.narragunnawali.org.au/professional-learning/90/cultural-safety-and-respect-in-the-classroom	4469
Bringing Aboriginal and Torres Strait Islander Perspectives into the Classroom: No Excuses professional learning resource https://www.narragunnawali.org.au/professional-learning/62/bringing-aboriginal-and-torres-strait-islander-perspectives-into-the-classroom-no-excuses	2702
What is your Vision for Reconciliation? professional learning resource https://www.narragunnawali.org.au/professional-learning/34/what-is-your-vision-for-reconciliation	2689
A Matter of Perspective professional learning resource https://www.narragunnawali.org.au/professional-learning/56/a-matter-of-perspective	1865
An All-Staff Acknowledgement professional learning resource https://www.narragunnawali.org.au/professional-learning/37/an-all-staff-acknowledgement	1838
A Sense of Place professional learning resource https://www.narragunnawali.org.au/professional-learning/54/a-sense-of-place	1660
Belonging, Being, & Becoming Meets People, Culture & Country professional learning resource https://www.narragunnawali.org.au/professional-learning/8/belonging-being-becoming-meets-people-culture-country	1489
Cultural Competence Continuum professional learning resource https://www.narragunnawali.org.au/professional-learning/59/cultural-competence-continuum	1415
Professional Learning landing page – the second page of the full list of resources https://www.narragunnawali.org.au/professional-learning?page=2	1157

Notes: See in text for specification of data used in this table

Table 10. The ten most frequently viewed “RAP” pages during 2019

RAP Pages	Number of 2019 pageviews
RAP Actions home page https://www.narragunnawali.org.au/rap/actions	90625
Institutions’ RAP summary page https://www.narragunnawali.org.au/rap/summary	72377
What is a RAP? https://www.narragunnawali.org.au/raps/what-is-a-rap	42733
Institutions’ RAP Working Group summary page https://www.narragunnawali.org.au/rap/working-group	37147
Aboriginal and Torres Strait Islander People in the Classroom RAP Action page https://www.narragunnawali.org.au/rap/actions/6/aboriginal-and-torres-strait-islander-people-in-the-classroom	22309
Cultural Competence for Staff RAP Action page https://www.narragunnawali.org.au/rap/actions/21/cultural-competence-for-staff	15444
Acknowledgement of Country RAP Action page https://www.narragunnawali.org.au/rap/actions/1/acknowledgement-of-country	14404
Institution’s Vision for Reconciliation page https://www.narragunnawali.org.au/rap/vision	12602
Welcome to Country RAP Action page https://www.narragunnawali.org.au/rap/actions/2/welcome-to-country	11908
Build Relationships with Community RAP Action page https://www.narragunnawali.org.au/rap/actions/27/build-relationships-with-community	11522

Notes: See in text for specification of data used in this table

4.2. Data limitations

This section outlines the primary limitations of the Narragunnawali Google Analytics data used, and should be read alongside the findings and conclusions of this report. Many of these data limitations can be addressed, and ways to do so will be outlined at subsection 4.3.2 below. I.

Internal ‘traffic’ to the Narragunnawali platform

It is not currently possible to differentiate between activity on the Narragunnawali platform generated by members of the Narragunnawali team and that generated by visitors external to Reconciliation Australia. This means that findings presented in this current report include data generated by members of the Narragunnawali team (and also by the authors).

Identification of unique visitors to the platform

Google Analytics for Narragunnawali, as currently configured, identifies and defines individual visitors to the Narragunnawali platform via browser stored cookies (through what Google Analytics names the 'Client-ID'). In this way, unique web browsers are treated as individual visitors to the platform. This allows visitors to be identified across browsing sessions, but it cannot identify unique visitors across different browsers (e.g. Google Chrome and Fire Fox) or devices. It also cannot identify situations in which more than one person has use of the same device and browser. The Google Analytics cookie default expiration date is 2yrs (from most recent visit). Cookies and associated unique identifiers can also be cleared if an individual chooses to clear their browser's cache or other settings within the user's browser results in the cookies being cleared (Google Analytics, 2020c).

The combined number individuals accessing the Narragunnawali platform from multiple devices/browsers and with periodic clearing of browser stored cookies, is likely larger than the number of individual's sharing access with others from a single browser. If this assumption is correct, then data and findings presented in this report will show higher estimated numbers of unique visitors and a lower estimated visitor session frequency than is truly the case.

Measurement of session duration and time on page

Currently, if a visitor lands on the Narragunnawali platform and does not navigate to another page before leaving, Google Analytics labels this a "bounce session" and assigns the session a zero second duration. A zero second duration is assigned because google receives no information to the Analytics server by which to calculate the length of the session. However, it is possible that, for some "bounce sessions" the visitor was engaged with Narragunnawali context and spent some time reading it before leaving the site. Even for sessions where a visitor has navigated between pages, Google Analytics is currently not able to estimate the amount of time spent on the last page of the session. This data limitation means that, even after excluding single page sessions from the data, estimated average session duration will be shorter than the actual visitor session length (Analytics, 2020h, 2020i).

4.3. Summary and suggestions

4.3.1. Summary

These conclusions should be read in conjunction with the above section 4.2 Data Limitations.

The number of unique visitors to and total number of sessions on the Narragunnawali platform each month has increased over the lifetime of the program; particularly since January 2017. As might be expected, there is an increase in unique visitor numbers and session numbers coinciding with National Reconciliation Week (held annually between May 27 and June 3). There appears to be a reduced number of unique visitors and sessions during the December-January period each year. This might also be expected, as it coincides with the school holiday period and is also a time of year that many Australians (including school and early learning staff) take annual leave. It is important acknowledge the limitations of the way Google Analytics for Narragunnawali currently approximates unique visitors. As a result of these limitations, the data and associated findings are likely biased towards higher estimations of unique visitor number than is actually the case.

The proportion of visitors to the platform each month, that undertake only single page sessions appears to have increased between January 2018 and February 2020. Similarly, the proportion of single page (bounce) sessions each month appear to have increased over time (at least from mid-2017). There are a number of valid interpretations for the increase in the proportion of bounce visitors and sessions each month. It is possible these findings indicate reduced depth of engagement with the platform (as

indicated by lack of navigation between pages). It is also possible that a higher proportion of visitors (and sessions) are accessing the platform through means that deliver them directly to the content they wish to view. Google Analytics for Narragunnawali (as currently configured) is not able to accurately measure depth of engagement with single pages.

Tentatively, for the 2018 and 2019 calendar years the clear majority of unique visitors appeared to visit the platform just once. Google Analytics data for 2018 showed that 71.66% of visitors made a single visit during the calendar year, and during 2019 this figure had risen to 75.55%. It appears the likelihood of a visitor undertaking single page or 'bounce' sessions is not strongly related to the number of times a visitor returns to the Narragunnawali platform within a calendar year. It is important to acknowledge the limitations of the way Google Analytics for Narragunnawali currently approximates unique visitors. As a result of these limitations, the data and associated findings are likely biased towards a lower estimated visitor session frequency than is truly the case.

There are some significant limitations to the way in which Google Analytics for Narragunnawali is currently able to capture session length. Nonetheless, the estimate visitor average session duration for the 2018 calendar year was 8.89 minutes (standard deviation 13.89), and for 2019 it was 8.34 minutes (standard deviation of 13.58). The large standard deviation (relative to the size of the mean), indicates that there is large variation in the length of time that visitors spend on the Narragunnawali platform. By proxy, this may also indicate large variations in depth of engagement with the program. Finally, the data are skewed towards shorter average session durations.

Google Analytics collects data about the source of visitors to the Narragunnawali platform. Source refers to the of the search engine the visitor used to find Narragunnawali or the website/link that referred them to the platform (GoogleAnalytics, 2020j). By far the largest source category is direct entry and unknown source. Direct entry refers to visitors that typed a Narragunnawali URL directly into the browser or used a bookmark to navigate to the platform. However, unfortunately, this category also includes visitors that Google Analytics has no referral data for. Reducing the number of visitors whose source is categorised as direct/unknown will likely improve the usefulness of this data for program evaluation into the future.

Narragunnawali platform pages were grouped on the basis of URL text. Pages were grouped into those whose URL contained the phrase "curriculum-resource", those that included the phrase "professional-learning", and those that included "RAP" (and did not include "curriculum-resource" or "professional-learning"). Over all, professional learning resources appear to be accessed less frequently than both the curriculum resources and RAP pages. For most months of the year, RAP pages appear to be used more frequently than curriculum resource pages. However, this difference is reduced and then eliminated for a period of time roughly in line with National Reconciliation Week each year.

If suggestions to improve the configuration of Google Analytics for Narragunnawali (outlined in the section below) are implemented; Google Analytics is likely to provide a sound source of data for the ongoing program evaluation.

4.3.2. Suggestions: Google Analytics as evaluation tool

These suggestions related to the strengthening of Google Analytics as a potential evaluation tool for the Narragunnawali program. If suggestions are implemented, Google Analytics is likely to provide a sound source of data for the ongoing program evaluation.

Identify internal traffic

It is not currently possible to identify visitation to the Narragunnawali platform by Reconciliation Australia employees, members of the evaluation teams, or other stakeholders who are not considered to be

general users of the platform. Setting-up the IP address filter (Google Analytics, 2020l) will enable 'internal' traffic to be clearly identified, resulting in more reliable and valid data. This feature can only be applied prospectively.

Explore reliable 'work-around' for Google Analytics limit on 'point and click' report export size

The current Narragunnawali Google Analytics product has a limit of 5000 rows for reports that can be exported using 'point and click' interface. The 5000 row limitation poses challenges when exploring individual user behaviour or event level behaviour (e.g. clicks on particular links). The efficient and full use of Google Analytics as an evaluation tool will likely be enhanced by removing (or navigating around) this limitation. The constraint of this limitation will be felt more strongly if Narragunnawali continues to attract more participants and associated web platform engagement. Exploration of available Application Programming Interfaces (APIs) may be one possible solution, though seeking further technical advice is recommended.

Improve recognition of unique visitors to the platform

One way to improve this is through use of the Google Analytics User-ID function (Analytics, 2020m). The User-ID feature associates a persistent unique identifier to a Narragunnawali visitor across different browsers and devices.

There are limitations associated with the User-ID functionality. For example, User-IDs must be generated by the website owner and are often attached to a visitor when they sign-in. If set up in this way, visitors who do not sign-in will not be associated with a User-ID.

Nonetheless, the User-ID functionality is likely to improve understanding of online engagement with Narragunnawali by different visitor groups. These groups may include logged-in versus non-logged-in users; logged-in users associated with a RAP(s) versus those not associated with a RAP(s); and logged-in users associated with an early learning service RAP(s) versus a school RAP(s). It is also likely to improve estimates for number of unique visitors to the platform and their rate of return.

User-IDs cannot be assigned retrospectively.

It is possible that a mechanism other than the User-ID function may improve Google Analytics ability to persistently identify unique visitors across different browsers and devices. Additional technical advice is recommended regarding the best solution for Narragunnawali.

Improve session duration and time on page measurement

Setting-up and then tracking Google Analytics 'Events' (Analytics, 2020n) may be one way to improve session duration and time on page measurements. Example 'Events' could be scrolling down a page, movement of the mouse, or simply a timer that triggers after a set period of time. Such events would provide Google Analytics with interaction data, in addition to the currently used between page navigation data, by which to calculate user engagement metrics.

As discussed at section 4.1.4 Average session duration, even when single page sessions (which are identified by Google Analytics as bounce sessions) were excluded from the data set, a number of visitors were assigned a zero second average session duration, as measured across a period of a month or year. If the Narragunnawali team chooses to pursue Google Analytics data for program evaluation and development purposes, seeking technical advice to understand the reason for this may be beneficial.

Reduce the amount of direct/none traffic and increase URL tracking

Consider obtaining technical advice as to how the Narragunnawali team can reduce the number of visitors whose source is categorised as direct/unknown by Google Analytics. Understanding how visitors navigate to the platform will enable Narragunnawali to better assess the effectiveness of any recruitment strategies or endorsements provided by other organisations linking to the platform. One way to do this might be to ensure that all links that the Narragunnawali team shares include custom URL parameters (Analytics, 2020a) (allowing for the effectiveness of individual campaigns to be measured).

Improve content grouping

Google Analytics 'content groups' enables website owners to thematically group the content of website pages (using page URLs) (Analytics, 2020k). As far as the authors could determine, this has not been actively set-up for the Narragunnawali platform. Doing so, would likely enable more accurate and efficient mapping of patterns of user behaviour across the platform.

Revisit data retention and data storage policy and processes

Currently, retention for user and event level data is set to 26 months within the Google Analytics platform. Retention of data across time is crucial to enabling longitudinal program evaluation. However, this needs to be balanced with data security and the individual rights of the visitors to the Narragunnawali platform.

Consider informing Narragunnawali Users about data use

The Narragunnawali team may consider informing visitors that Google Analytics data are collected for program evaluation purposes. Users could also be informed about the Google Analytics opt-out browser add-on, as a means of opting out of this data collection if they choose to do so: (https://support.google.com/analytics/answer/181881?hl=en&ref_topic=2919631).

4.3.3. Suggestions: Development of the Narragunnawali program

These suggestions follow from the current Google Analytics findings and are designed to improve aspects of the Narragunnawali program.

Increase visitor return rate and the frequency of visitation

As discussed at section 4.2. Data Limitations, the actual rate that visitors return to the Narragunnawali platform is likely under estimated in the findings of this report. Nonetheless, number of sessions per visitor estimated for the 2018 and 2019 calendar years was low. The Narragunnawali team may wish to consider ways of reengaging visitors. For example, visitors that have created a Narragunnawali user account could be emailed after a certain length of inactivity.

Increase frequency of visitation (engagement) with professional learning resources

As measured by pageviews, the professional learning resources appear to be used less often, compared to the curriculum resources or RAP pages. The Narragunnawali team, may consider additional communications and/or promotional campaigns specifically regarding the professional learning resources available on the platform.

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Appendix A: Google Analytics measures of engagement through-out the COVID-19 crisis

This appendix provides a brief summary of additional Google Analytics data measuring engagement with Narragunnawali through-out the COVID-19 crisis 2020. Data for the months of March, April, and May are compared across time. During 2020, March, April and May are the months (to date) during which the Australian education sector experienced very significant disruptions due to the COVID-19 pandemic. Data included in the appendix is sourced from the same locations and measurements are defined in the same way as analogous data presented in the body of this report. This appendix should be read alongside section 4.2. Data Limitation of the report.

Number of Narragunnawali platform visitors

Descriptively, data summarised in Table 1 shows no clear evidence that COVID-19 negatively impacted the number of unique visitors to the Narragunnawali platform for the months of March, April, and May 2020.

Table 1. Number of unique visitors: Comparing March, April, and May across time

	March	April	May
2015	261	310	894
2016	258	307	668
2017	767	1895	9771
2018	4920	5514	13908
2019	11211	9544	27676
2020	14008	17089	43899

Number of Narragunnawali sessions

Descriptively, data summarised in Table 2 shows no clear evidence that COVID-19 negatively impacted the number of Narragunnawali sessions for the months of March, April, and May 2020.

Table 2. Number of sessions: Comparing March, April, and May across time

	March	April	May
2015	389	448	1238
2016	433	550	1025
2017	1335	3130	15163
2018	7844	8548	21598
2019	16800	14458	42567
2020	19946	25617	65836

Resources Use

Descriptively, data summarised in Table 3 shows a temporary decline the number of professional learning and curriculum resource pageviews during March 2020. However, causality between COVID-19 and this temporary decline cannot be determined.

Table 3. Number of monthly pageviews for different groups of Narragunnawali platform content: Comparing March, April, and May across time

	March			April			May		
	Curriculum Resources	Professional Learning s	RAP	Curriculum Resources	Professional Learning s	RAP	Curriculum Resources	Professional Learning s	RAP
2017				4923	1619	12333	42437	6797	30426
2018	7933	3767	22439	9209	4678	20441	43895	8253	40214
2019	15051	7858	42165	18395	8054	33977	81040	16794	77280
2020	12781	6145	46821	20178	10729	59439	109659	24065	110504

Notes: Data not available for March 2017 due to Narragunnawali Google Analytics current data retention configuration.