



Keys4Life Evaluation

Report 2

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EXECUTIVE SUMMARY

INTRODUCTION

This report details Phase 2 of the 2020/ 2021 Keys4Life program evaluation. Keys4Life is a pre-driver education program delivered in Western Australia (WA) that educates young people about safer road use and allows them to sit their Learner's Permit Theory Test. Phase 1 of the evaluation consisted of an examination of program engagement data, in-depth interviews with Department of Education (DoE) consultants and stakeholders involved in the program and the pilot testing of a before and after questionnaire assessing changes in driving attitudes and risk perception (Fraser, Lyford, & Meuleners, 2021). The objectives of the second phase of the Keys4Life program evaluation were to:

1. Undertake surveys of school teachers, school students, agency teachers and agency students involved in Keys4Life concerning enablers, barriers and benefits of the program and analyse changes since previous Keys4Life evaluations.
2. Undertake surveys of principals and school leaders at schools that have never engaged or have disengaged from the Keys4Life program in order to identify the perceived barriers, benefits and enablers in relation to program engagement.
3. Identify the impact of the Keys4Life program on road safety knowledge, attitudes and intentions among school students who are pre-drivers.
4. To enable the Department of Education to establish a long-term methodology for i) tracking Keys4Life students to review the impact of the program on their supervised driving and driving history and ii) analysing program effectiveness for improving on-road driving practices including use of safer vehicles.
5. To make recommendations regarding improvements to the Keys4Life program that would benefit (a) the Keys4Life program as a product; (b) the program developer (DoE) and (c) the program users (students, schools, agencies teachers).

METHODS

Phase 2 of the Keys4Life evaluation consisted of online surveys of four different groups of participants. Recruitment of participants was undertaken using invitation emails. School teachers, agency teachers and principals/ school leaders completed cross-sectional surveys examining their views and perspectives on the Keys4Life program. In addition, a before and after study examined the short-term impact of the Keys4Life program on attitudes, risk perception and intended hours of supervised driving among school students, using two online surveys. The 'after' survey also collected school student perspectives on the program. All surveys were completed between February and August 2021. For the surveys examining perspectives on the program, responses were described using numbers and percentages and graphs presented. For the before and after study, separate Generalised Estimating Equation (GEE) models were used to examine whether there was a significant change in students' attitudes, risk perception or intended hours of supervised driving after participation in Keys4Life, controlling for confounding factors.

The final part of the Phase 2 evaluation involved the investigation of possible methodologies for examining the effectiveness of the Keys4Life program on various longer-term outcomes. The researchers investigated three possible methods and made recommendations.

RESULTS

Part A: Perspectives of school teachers

Sixty-six school teachers filled in the online survey and overall, there was a high level of satisfaction with the Keys4Life program among these teachers.

- Over 90% of school teachers were '*satisfied*' or '*strongly satisfied*' with the majority (95%) of the elements of the program.
- 100% stated that they were '*definitely likely*' or '*very likely*' to recommend the Keys4Life program to other teachers or schools.
- 87% intended to deliver Keys4Life in 2021.

Barriers identified by school teachers included the time investment required to plan/ implement the program and barriers for disadvantaged students including those from CALD backgrounds, in remote communities, transient students and those with literacy/ learning/ language support needs. School teachers also identified issues with the new Keys4Life teacher portal being difficult to use/ upload test results and the time taken for certificates to be issued. Several also suggested that the Keys4Life program was too short. The top two suggested improvements to the program were, '*regular updates for Keys4Life materials*' (58%) and a '*Keys4Life app*' (56%).

Part B: Perspectives of agency teachers

Thirteen agency teachers filled in the online survey and overall, there was a high level of satisfaction with the Keys4Life program among agency teachers.

- Over 80% of were '*satisfied*' or '*strongly satisfied*' with the majority (95%) of the elements of the program.
- 92% stated that they were '*definitely likely*' or '*very likely*' to recommend the Keys4Life program to other teachers or schools.
- 69% intended to deliver Keys4Life in 2021.

Similar barriers were identified by agency teachers as school teachers, including the time investment required to plan/ implement the program and the Keys4Life lessons and resources being text heavy and unsuitable for some disadvantaged students. Several agency teachers stated they personally adapted the Keys4Life program structure, length, content and/ or materials to suit their specific student groups (e.g. literacy or learning support needs). Several agency teachers commented that the program and lessons were too long and 23% delivered the program in less than the recommended 10 hours. The top suggested improvements were similar to school teachers, '*regular updates for Keys4Life materials*' (69%), '*Keys4Life refresher courses for trained teachers*' (69%) and a '*Keys4Life app*' (54%). Fifty-four percent of agency teachers also supported a biennial Keys4Life forum to share research and implementation models.

Part C: Perspectives of school students

A total of 231 school students provided their perspectives on the Keys4Life program.

- 94% were '*satisfied*' or '*strongly satisfied*' with the Keys4Life lessons
- 63% were '*definitely likely*' or '*very likely*' to recommend the program
- 85% intended to achieve and record more than the required 50 hours of supervised driving in their log book after participating in Keys4Life.
- 32% intended to achieve more than 100 hours of supervised driving after Keys4Life.

The majority '*agreed*' or '*strongly agreed*' that as a result of the Keys4Life program they: understand the risk of alcohol and other drugs in relation to driving (96%), believe the more hours of supervised driving a learner does, the safer they will be on P-plates (94%) and feel more confident in driving/ learning to drive (88%). The items with the highest level of disagreement involved understanding the licensing system (15%) and that a safer car will protect them and their passengers in the event of a crash (13%). The most common source of dissatisfaction with the program for students was the lack of focus on learning the road rules required to pass the Learner's Permit test.

Part D: Perspectives of non-engaged schools

Principals/ school leaders from 13 schools with capacity that did not implement Keys4Life in 2020, completed the online survey. Eight respondents (62%) were from regional schools and five (38%) from metropolitan schools.

- 100% of respondents had heard of the Keys4Life program
- 100% stated that road safety education in schools was '*important*' or '*very important*'
- 40% were '*not satisfied*' or were '*unsure*' if they were satisfied with the road safety education currently delivered at their school.

Sixty percent of the non-engaged schools had delivered Keys4Life previously. For regional schools, the most common reason for discontinuing Keys4Life was that the teacher who delivered or co-ordinated Keys4Life left the school. Reasons for discontinuation in metropolitan schools included lack of support from teachers and having no-one to take ownership of the program. The crowded curriculum and lack of time to complete the Keys4Life Teacher PD also presented barriers for both regional and metropolitan schools. Similarly, reasons for schools never implementing Keys4Life were: lack of support from teachers, no-one to take ownership of program, crowded curriculum and lack of time for Keys4Life PD.

Part E: Impact of Keys4Life on student attitudes, risk perception and intentions

The final sample consisted of 231 school students who completed both surveys '*before*' and '*after*' Keys4Life. After participation in Keys4Life, the risk perception scale score significantly improved by 0.5 points (95% CI: -0.9 - -0.2, $p=0.001$), the '*speeding*' subscale of the attitudes scale significantly improved by 0.8 points (95% CI: -1.1 - -0.4, $p<0.001$) and the likelihood of a student intending to complete more than 100 hours of supervised driving increased by 1.7 times or 70% (95% CI: 1.2-2.4, $p=0.003$). However, an unintended consequence was the '*traffic rule violations*' subscale of the attitudes scale significantly increased (worsened) by 0.4 points after participation in Keys4Life (95%

CI: 0.1-0.7, $p=0.004$). There was little difference in outcomes between males and females in the study.

Part F: Methodology for future evaluations

We investigated possible methodologies for examining the long-term effectiveness of the Keys4Life program on outcomes including the number of supervised driving hours completed, vehicle details/ safety, driving behaviour, traffic infringements and crash history. First, we tested a methodology of obtaining contact details from students at the time of participation in Keys4Life, in order to track them into the future. This method captured only a small proportion of the population of Keys4Life students (3%) and revealed potential issues with following-up these students. Therefore, this methodology was not recommended. Second, we explored the possibility of using de-identified Department of Transport (DoT) data to examine the association between Keys4Life participation and vehicle details/ safety and traffic infringements. However, this method did not prove to be feasible. The methodology we recommended was to conduct a retrospective study which recruits participants as young adult drivers and examines the impact of Keys4Life participation on outcomes including number of supervised driving hours, vehicle safety details, driving behaviour, traffic infringements and crashes, using telephone interviews and linked data.

CONCLUSION AND RECOMMENDATIONS

Phase 2 of this evaluation confirmed the findings of Phase 1 as well as the 2015 and 2008 evaluations—that Keys4Life is performing well in terms of participant satisfaction. This was also the first evaluation to examine the impact of Keys4Life on short-term outcomes. Results found significant albeit small improvements in risk perception, attitudes towards speeding and intended hours of supervised driving after participation in the Keys4Life program. However, attitudes surrounding traffic rule violations significantly deteriorated, by a small amount. As a result of this evaluation, several opportunities have been identified and recommendations made for improvements to the Keys4Life program. These include:

Opportunities and recommendations for improvements to Keys4Life

1. Develop Keys4Life lessons and resources that are more culturally inclusive and appropriate for disadvantaged students and those with literacy/ learning/ language support needs
2. Provide teachers with Keys4Life lessons in PowerPoint format and pre-made Keys4Life activities/ resources
3. Review the content and activities surrounding the 'licensing system' and 'safer vehicles' topics in the Keys4Life lessons
4. Regularly update Keys4Life materials and provide school and agency teachers with links to current crash statistics
5. Development of more online/ electronic Keys4Life materials
6. Provide a clear explanation of the purpose of Keys4Life for students in the lesson plan for the first lesson
7. Promote the flexibility of the Keys4Life program and options for variable length of delivery to school and agency teachers

8. Provide agency teachers with information on the importance of spending a minimum of 10 hours delivering the Keys4Life program
9. Improve and fine tune the new Keys4Life portal
10. Develop a system that ensures the prompt issue of Keys4Life certificates
11. Link Keys4Life with learn to drive organisations to assist disadvantaged students in obtaining their provisional licence
12. Connect agency teachers through Keys4Life forums

Opportunities to reach non-engaged schools

13. Provide more Keys4Life Teacher PD opportunities/ dates delivered both in-person and online and promote these to non-engaged schools
14. Offer face-to-face meetings for non-engaged schools with a Keys4Life representative to promote and explain the program
15. Refine Keys4Life processes and procedures to ensure they are simple and clear for teachers and promote these to non-engaged schools.
16. Provide targeted positive testimonials about the Keys4Life program to non-engaged schools from comparable schools that successfully implement the program
17. Include content in the Keys4Life lessons and resources that is more contextualised to the regional/ remote environment and promote this content specifically to regional schools.
18. Promote the new Keys4Life resources that are currently being developed by the DoE that are more culturally inclusive and appropriate for disadvantaged students and those with literacy/ learning/ language support needs, to non-engaged schools.
19. Promote the flexibility of the Keys4Life program and options for variable length of delivery to non-engaged schools

Recommendations for future research: short-term outcomes

20. Investigate the feasibility of including a before and after survey examining short-term outcomes permanently within the Keys4Life lesson plans
21. Conduct further evaluations of short-term outcomes of Keys4Life by recruiting a representative sample of Keys4Life schools to form an intervention group and non-Keys4Life schools to form a comparison group. Work closely with teachers to administer surveys to students before and at multiple time-points after completion of Keys4Life
22. Develop and validate a version of the before and after evaluation that is appropriate for disadvantaged students including those from CALD backgrounds, in remote communities and those with literacy/ learning/ language support needs

Recommendations for future research: long-term outcomes

23. Conduct a retrospective study which recruits participants as young adult drivers and examines the impact of Keys4Life participation on longer-term outcomes including number of supervised driving hours, vehicle safety details, driving behaviour, traffic infringements and crashes, using telephone interviews and linked data.

1 INTRODUCTION

1.1 Keys4Life program

Keys4Life is a pre-driver education program delivered in Western Australia (WA) that educates young people about safer road use and allows them to sit their Learner's Permit Theory Test (Department of Education Western Australia, 2021). The Keys4Life program is funded by the Road Safety Commission and administered by the Department of Education (DoE) (formerly administered by School Drug Education and Road Aware (SDERA)). Keys4Life is recommended for school students in Years 10 to 12 and their parents/carers, but it is not compulsory. In addition to schools, Keys4Life is run in non-mainstream education and training services (agencies) (Department of Education Western Australia, 2021). Detailed descriptions of the Keys4Life program are available on the DoE Road Safety and Drug Education Branch website (Department of Education Western Australia, 2021), in the Keys4Life Teacher Resource (Department of Education Western Australia, 2020) and Report 1 of this evaluation (Fraser et al., 2021).

1.2 Previous evaluations of the Keys4Life program

The first evaluation of the Keys4Life program was conducted in 2008 by Quantum Consulting for the Office of Road Safety (Office of Road Safety, 2009) and the second in 2015 by Metrix Consulting (Metrix Consulting, 2016). These were both process evaluations which examined the effectiveness of the program's implementation. The current evaluation repeats and extends the previous evaluations in terms of the process evaluation.

1.3 Phase 1 of the 2020/ 2021 evaluation

Phase 1 of the current Keys4Life evaluation included an examination of program engagement, Parent/ Student Workshop feedback, Teacher Professional Development feedback, stakeholder and DoE consultant interviews and the development/ pilot testing of a student questionnaire for use in Phase 2 of the evaluation. These findings can be found in Report 1 of the Keys4Life evaluation (Fraser et al., 2021).

1.4 Phase 2 of the 2020/ 2021 evaluation

1.4.1 Perspectives of schools and agencies

Report 2 examined the perspectives of school teachers, school students and agency teachers involved in Keys4Life on their satisfaction with the program, benefits and barriers as well as suggestions for improvement. It also examined the perspectives of schools that did not deliver Keys4Life in 2020. The content of the surveys closely reflected those used in the 2015 evaluation, in order to allow comparisons. However, this is the first time that the perspectives of agencies have been included in the Keys4Life evaluation.

1.4.2 Impact of Keys4Life on student attitudes, risk perception and intentions

Phase 2 also examined the impact of the Keys4Life program on attitudes towards road safety, risk perception and intended hours of supervised driving among school students, using a before and after study. These outcomes are important to measure since they are the psychological antecedents of driving behaviour in pre-drivers (Poulter & McKenna, 2010) and are known to predict driving behaviour and crash involvement (Hatfield & Fernandes, 2009; Iversen, Rundmo, & Klempe, 2005; Kraus, 1995).

The 2008 Keys4Life evaluation examined the initial impact of Keys4Life on student attitudes and awareness of road safety/ supervised driving issues (Office of Road Safety, 2009). It involved a single questionnaire administered after completion of the program which asked students to report whether Keys4Life made them aware of the importance of getting driving experience, how to drive more safely, the risks drivers face and whether they intend to make safer decisions and be a more careful driver after completing the program. Over 90% of students agreed or strongly agreed with the various statements (Office of Road Safety, 2009). While these are positive findings, this evaluation will extend these findings by administering validated instruments of attitudes and risk perception before and after the program, in order to measure changes in these outcomes.

A small number of evaluations of pre-driver road safety programs have been published, reporting mixed results. Pre-driver programs conducted in Australia or Europe have delivered road safety education programs, testimonials of injured crash survivors, police and emergency services, or a combination of both (Bates, Evenhuis, & Lennon, 2020; Cuenen et al., 2016; Cutello, Hellier, Stander, & Hanoch, 2020; Glendon, McNally, Jarvis, Chalmers, & Salisbury, 2014; Markl, 2016; Poulter & McKenna, 2010). These programs ranged in length from one short session (Cuenen et al., 2016; Markl, 2016; Poulter & McKenna, 2010), to a one-day course (Cutello, Hellier, et al., 2020; Glendon et al., 2014), to a 12-hour program conducted over several sessions (Bates et al., 2020). The impact of these programs on several psychosocial factors were measured including road safety attitudes, risk perception, sensation seeking, subjective norms, perceived behavioural control and behavioural intention (Bates et al., 2020; Cuenen et al., 2016; Cutello, Hellier, et al., 2020; Glendon et al., 2014; Markl, 2016; Poulter & McKenna, 2010). While two studies reported small to medium positive effects of the program (Cuenen et al., 2016; Cutello, Hellier, et al., 2020), another reported no effects (Markl, 2016). Glendon et al. reported no effect of a pre-driver program in Queensland (n=133) on risk perception and a detrimental effect on attitudes (Glendon et al., 2014). An evaluation of a UK-based program reported positive effects, no effect and detrimental effects across the outcomes measured (Poulter & McKenna, 2010).

Finally, the Road Ready program is a compulsory pre-driver program delivered in the Australian Capital Territory (ACT) as is part of the Year 10 curriculum (Bates et al., 2020). It is a 12-hour education program designed to address attitudinal and belief-related factors that increase crash risk during provisional licensing, and is the most similar program to Keys4Life that has been evaluated. This evaluation (n=119) found that young drivers' levels of sensation seeking and perception of their own driving skills increased following the program (detrimental effect). They were also believed they were less likely to have a negative experience while driving or associate their behaviour with other drivers (detrimental effect). However, they did perceive driving as more risky (positive effect) (Bates et al., 2020). The mixed results found in these previous evaluations means it is essential to understand the impact of Keys4Life on attitudes and risk perception so that the program can be modified and adapted to ensure the most positive outcomes.

1.4.3 Methodology for future evaluations of Keys4Life

Finally, Phase 2 investigated three possible methodologies for examining the long-term effectiveness of the Keys4Life program on outcomes including the number of supervised driving hours completed, vehicle details/ safety, driving behaviour, traffic infringements and crash history. These outcomes have never been examined for the Keys4Life program.

1.5 Objectives

The objectives of the second phase of the Keys4Life program evaluation were to:

1. Undertake surveys of school teachers, school students, agency teachers and agency students involved in Keys4Life concerning enablers, barriers and benefits of the program and analyse changes since previous Keys4Life evaluations.
2. Undertake surveys of principals and school leaders at schools that have never engaged or have disengaged from the Keys4Life program in order to identify the perceived barriers, benefits and enablers in relation to program engagement.
3. Identify the impact of the Keys4Life program on road safety knowledge, attitudes and intentions among school students who are pre-drivers.
4. To enable the Department of Education to establish a long-term methodology for i) tracking Keys4Life students to review the impact of the program on their supervised driving and driving history and ii) analysing program effectiveness for improving on-road driving practices including use of safer vehicles.
5. To make recommendations regarding improvements to the Keys4Life program that would benefit (a) the Keys4Life program as a product; (b) the program developer (DoE) and (c) the program users (students, schools, agencies teachers).

2 METHODS

2.1 Study design

Phase 2 of the Keys4Life program evaluation consisted of several online surveys. Cross-sectional surveys examined the views and perspectives of school teachers, agency teachers and principals/ school leaders on the Keys4Life program. In addition, a before and after study examined the impact of the Keys4Life program on road safety attitudes and risk perception among school students, using online surveys. The 'after' survey also collected student perspectives on the Keys4Life program. All surveys were completed between February and August 2021. Ethical approval was obtained from UWA and approval was also received from the DoE, Catholic Education Western Australia (CEWA) and the Principal of each school involved in the study.

2.2 Participants

School teachers: School teachers were eligible to participate if they delivered the Keys4Life program in 2019, 2020 and/ or 2021 and their Principal approved the school's participation in the evaluation.

Agency teachers: Teachers at non-mainstream education and training services (agencies) were eligible to participate if they delivered the Keys4Life program in 2020 or 2021. Department of Justice employees who delivered Keys4Life were excluded as a full application and review by the Department of Justice Research Application and Advisory Committee would have been required.


School students: School students were eligible to take part in the evaluation if they participated in the Keys4Life program in Term 1 or 2 of 2021 and their Principal approved the school's participation in the evaluation.

Principals/ school leaders: Principals and school leaders were eligible to participate if their school had the capacity to implement Keys4Life in 2020 but chose not to. In 2020, 336 of 391 secondary schools (86%) had the capacity to implement Keys4Life (Fraser et al., 2021). Schools without capacity include those with less than 20 students enrolled in Years 7–12, camp schools, Education Support Centres and schools where the majority of students are medically precluded from driving a vehicle, Schools of Special Education Needs, Schools of Isolated and Distance Education, Residential Colleges, Primary Schools and Language Development Centres. School leadership roles of those who completed the survey included Deputy Principal, Head of Learning Area and Student Services Manager.

The researchers had also intended to survey agency students about their perspectives on the program, however we did not obtain any responses from this group.

2.3 Recruitment

Recruitment of the study participants was undertaken using invitation emails.



School teachers: The Road Safety and Drug Education Branch of the DoE sent an introductory email to the Principal of every school in WA that delivered Keys4Life in 2020, on behalf of the researchers. It explained the purpose of the evaluation and asked Principals to provide online consent for the school to participate. Once the Principal consented, the researchers sent an email to the Keys4Life contact teachers at the school explaining the study and requesting that they complete an online survey. They were also asked to forward the survey link to all teachers at the school who recently delivered the program (2019-2021). School teachers who participated in the survey provided online consent.

Agency teachers: The researchers emailed each agency teacher who had delivered Keys4Life in 2020 an invitation to participate in the evaluation. These details were provided by the Road Safety and Drug Education Branch of the DoE. The email contained a link to an online participant information form, consent form and survey.

School students: School students were recruited through the Keys4Life contact teachers at each school where the Principal had provided consent. For DoE schools, Keys4Life contacts were asked to forward an email to the parents of students who were enrolled in Keys4Life in Term 1 or 2 of 2021, before commencing the lessons. The parent email contained a link to information about the evaluation and parents were asked to forward the recruitment email to their child if they agreed to their participation in the evaluation. The student recruitment email contained a link to an online participant information form, consent form and online survey. For CEWA and AISWA schools, the Keys4Life contact teacher sent the recruitment email to students.

Principals/ school leaders: The researchers sent an introductory email to the Principal of every school in WA that had the capacity to implement Keys4Life, but did not implement the program in 2020. The email explained the study and they were asked to provide online consent for the school to participate. The Principal then either completed the online survey themselves, or nominated another suitable staff member in a position of leadership to be invited to complete the survey.

2.4 Data collection

Data collection for this evaluation consisted of online surveys, all administered through Qualtrics.

School teachers: School teachers completed a 10-minute online survey examining their perspectives on enablers, barriers and benefits of the of the Keys4Life program (Appendix 1). The survey was based on the one used in the 2015 Keys4Life evaluation (Metrix Consulting, 2016) with minor modifications made.

Agency teachers: Agency teachers completed a 10-minute online survey (Appendix 2) which collected the same information as the school teacher survey. However, questions were modified and items added to address specific issues that may affect non-school agencies.

School students: School students completed two online surveys, each taking approximately 10 minutes (Appendix 3). The first was completed before students commenced the Keys4Life program and the second was completed 0-2 months after their final Keys4Life lesson. The survey was compiled and piloted in Phase 1 of the evaluation (Fraser et al., 2021) and collected information on: attitudes towards road safety, risk perception and intended hours of supervised

driving. It contained a 10-item previously validated scale of risk perception (Ivers et al., 2009) and a scale of driving attitudes based on one developed by Ulleberg and Rundmo and modified and validated by Glendon et al. (Glendon et al., 2014; Ulleberg & Rundmo, 2002). The attitudes scale also consists of 10 subscales. The questions in the 'before' and the 'after' survey were identical. However, the second survey asked students additional questions about their perspectives on the value of the program and opportunities for improvement. These additional questions were based on the student survey used in the 2015 Keys4Life program evaluation (Metrix Consulting, 2016) and were analysed and reported separately to the before and after study.

Principals/ school leaders: Principals and school leaders of schools that did not implement Keys4Life completed a 10-minute online survey examining perceived barriers, benefits and enablers to participating in the program (Appendix 4). This survey was developed based on interview guides used in the 2015 Keys4Life program evaluation (Metrix Consulting, 2016).

2.5 Statistical analysis


2.5.1 Perspectives of schools and agencies

The surveys consisted of closed and open-ended responses. Numbers and percentages were used to describe the closed-ended responses to each question and graphs presented. Chi-square tests were also used to test whether there were significant differences in student perspectives on the program by region and other variables. The open-ended responses were analysed using basic content analysis. Researchers read the comments, devised a coding frame to describe the thematic content of the comments, then assigned codes to the comments. Coded data was then grouped into categories and described. Responses from the 2021 evaluation were also compared to those of the 2008 and 2015 evaluations, where possible.

2.5.2 Impact of Keys4Life on student attitudes, risk perception and intentions

The two school student surveys were completed before and after participation in the Keys4Life program. Initially, baseline characteristics of school students who completed the 'before' survey only (n=633) were compared to students who completed both the 'before' and 'after' surveys (n=231) using chi-square tests. In addition, scores on the outcome measures of interest (risk perception scale, 10 attitude subscales and intended hours of supervised driving) at baseline were compared for these two groups of students using Mann Whitney U-tests for non-parametric continuous variables and chi-square tests for categorical variables.

The final sample for the analysis consisted of the 231 school students who completed both the 'before' and 'after' surveys. For each outcome (risk perception scale, 10 attitude subscales and intended hours of supervised driving), scores or proportions before and after Keys4Life were compared using Wilcoxon paired signed rank tests for paired non-parametric continuous variables and McNemar-Bowker tests for paired categorical data, not controlling for any other factors. This provided an initial indication of whether there was a significant change in outcomes. The Bonferroni correction was applied due to there being 12 outcomes of interest, meaning two sided p-values less than 0.0042 were considered significant. A significant change was identified in these univariate analyses for four of the outcomes, namely risk perception, the speeding subscale and traffic rule violations subscale of the attitudes scale and intended hours of supervised driving.



For the four outcomes identified as significant in the univariate analyses, four separate Generalised Estimating Equation (GEE) linear or logistic regression models were used to examine whether there was a significant change in each outcome after participation in the Keys4Life program, while controlling for potential confounding factors. These potential confounding factors were: sex (male, female), age (14 years, 15 years) and region (metropolitan, regional). The GEE method is suitable for longitudinal or repeated measures study designs where observations within each participant are not independent (Liang & Zeger, 1986). GEEs permit specification of a certain working correlation matrix that accounts for this within-subject correlation, thus providing more robust regression coefficients (Ballinger, 2004). An exchangeable working correlation structure was adopted and p-values less than 0.013 were considered significant after applying the Bonferroni correction for four outcomes. Interactions between the main effects in each GEE model were investigated and none were significant.

2.6 Potential methodologies for future Keys4Life evaluations

The final part of this study involved the investigation of possible methodologies for examining the long-term effectiveness of the Keys4Life program on outcomes including the number of supervised driving hours completed, vehicle details/ safety, driving behaviour, traffic infringements and crash history. The researchers investigated three possible methods and made recommendations accordingly.

The first potential methodology involved obtaining contact details from students at the time of participation in Keys4Life, in order to track them into the future.

The second potential methodology involved the use of de-identified Department of Transport data to examine the association between Keys4Life participation and vehicle details/ safety and traffic infringements.

The third potential methodology involved recruiting participants as young adults from the general population of WA, collecting self-reported information via a telephone interview, then linking to objective licensing, vehicle, infringement and crash information through Data Linkage WA.

3 RESULTS

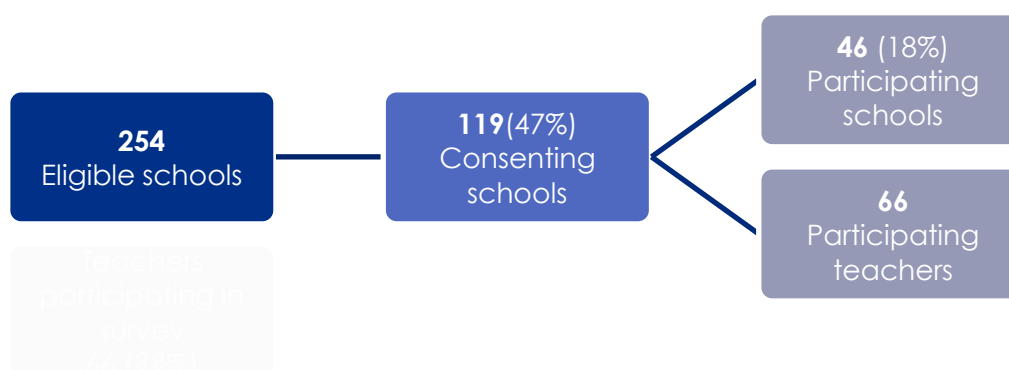
3.1 Part A: Perspectives of school teachers

This section details the results of the online survey completed by school teachers who delivered the Keys4Life program between 2019 and 2021.

3.1.1 Participants

Principals from 119 of the 254 schools that delivered Keys4Life in 2020, consented for their school to participate in the evaluation (47%). Email invitations to complete the survey were sent to the Keys4Life co-ordinators at the 119 consenting schools. Sixty-six school teachers filled in the online survey between March and May 2021 (Figure 3.1). These teachers represented 46 of the 254 schools (18%) that delivered Keys4Life in 2020.

Figure 3.1 School and teacher participation in the Keys4Life teacher survey



Forty-six school teachers delivered Keys4Life at metropolitan schools (70%) and 20 at regional schools (30%). This is generally representative of the population of Keys4Life schools in 2020 (65% metropolitan, 35% regional). Forty-seven teachers (71%) delivered Keys4Life at DoE schools, 13 (20%) at Association of Independent Schools of Western Australia (AISWA) schools and six (9%) at CEWA schools. DoE schools were over-represented and AISWA and CEWA schools were under-represented in the sample, compared to the population of Keys4Life schools in 2020 (57% DoE, 28% AISWA, 15% CEWA) (Table 3.1).

Nearly half of the participants first taught Keys4Life between 2018 and 2021 ($n=32$, 48%), one-quarter between 2011 and 2017 ($n=16$, 24%) and over one-quarter between 2003 and 2010 ($n=18$, 27%). Not all of the teachers delivered the program every year since they first taught it (Table 3.1).

The majority of participants described their role at the school as teacher ($n=52$, 79%), 10 were Head of Department (15%), six were Year Co-ordinators (9%) and three were Pastoral Care Co-ordinators (5%). Other roles ($n=4$, 6%) included Sports Co-ordinator, Health Education Co-ordinator, deaf liaison teacher and Pathways/ Vocational Education and Training (VET) Co-ordinator. These numbers total more than 66 since several participants had more than one role. The majority of participants were from the Health/ Physical Education learning area ($n=58$, 88%) and several worked across more than one learning area (Table 3.1).

Table 3.1 Characteristics of school teachers participating in the Keys4Life evaluation (n=66)

School teacher characteristics	N	%
Region		
Metropolitan	46	69.7
Regional	20	30.3
Education system		
DoE	47	71.2
AISWA	13	19.7
CEWA	6	9.1
First implement Keys4Life (year)		
2018-2021	32	48.5
2011-2017	16	24.2
2003-2010	18	27.3
Role at school ^a		
Teacher	52	78.8
Head of Department	10	15.2
Year Co-ordinator	6	9.1
Pastoral Care Co-ordinator	3	4.5
Other	4	6.1
Learning area ^a		
Health/ physical education	58	87.9
Science	5	7.6
Workplace training, careers, VET	5	7.6
English/ media	4	6.1
The arts	4	6.1
Technology	3	4.5
Social Sciences	2	3.0
Maths	2	3.0
Other	6	9.1

^a Numbers do not total n=66 or 100% due to multiple responses

3.1.2 Delivery of Keys4Life lessons by school teachers

Sixty-three school teachers responded to the question about delivery of the Keys4Life lessons. Keys4Life was originally designed as a 10-lesson program and it is recommended that teachers spend a minimum of 10 hours delivering the program. There is also a 40-lesson version, Keys4Life Plus, which contains additional material (Department of Education Western Australia, 2020). School teachers most commonly implement the 10-lesson program. One-third of school teachers (n=21, 33%) delivered Keys4Life in 10 separate lessons, one-third (n=22, 35%) in 11-19 lessons, 15 (24%) in 20 or 40 lessons and five (8%) in two to six lessons. Nearly half of the teachers (n=30, 48%) delivered Keys4Life in a total of 10-12 hours. However, nearly half (49%) took more time, with 15 teachers (24%) delivering the course in 13-19 hours and 16 (25%) in 20-40 hours. Only two teachers (3%) delivered Keys4Life in less than 10 hours and both took 8.5 hours (Table 3.2). These results are similar to the findings of the 2008 evaluation where 60% of teachers spent more than 10 hours delivering the program and few spent less than 10 hours (6%) (Office of Road Safety, 2009). A larger proportion of teachers spent over 20 hours delivering the program in 2021 (24%), compared to 2008 (8%) and this is likely due to the introduction of the 40-hour Keys4Life Program.

Half of the respondents (n=31, 49%) delivered more than 80% of the Keys4Life content/ activities, 22 (35%) delivered 61-80%, nine (14%) delivered 41-60% and one (2%) delivered less than 40% (Table 3.2). One participant stated that they 'fast-track' some sections they feel could be 'condensed'. Another teacher stated they have developed their own version of the resources and activities to suit students from culturally and linguistically diverse (CALD) backgrounds.

Table 3.2 Delivery of Keys4Life by school teachers (n=63)

Delivery of Keys4Life lessons	N	%
Separate lessons		
<10 lessons	5	7.9
10 lessons	21	33.3
11-19 lessons	22	34.9
20-40 lessons	15	23.8
Hours of lessons (total)		
< 10 hours	2	3.2
10-12 hours	30	47.6
13-19 hours	15	23.8
20-40 hours	16	25.4
Percentage of content/ activities delivered		
More than 80%	31	49.2
61-80%	22	34.9
41-60%	9	14.3
40% or less	1	1.6

3.1.3 Recommendation of Keys4Life

All 63 respondents (100%) stated that they were 'definitely likely' (n=47, 75%) or 'very likely' (n=16, 25%) to recommend the Keys4Life program to other teachers or schools. This improved since the 2015 evaluation where 93% of school teachers were 'definitely likely' (61%) or 'very likely' (32%) to recommend the program (Table 3.3) (Metrix Consulting, 2016). Statements from school teachers included:

- 'I think that Keys4Life is the most beneficial and relevant program students undertake'
- 'It should be taught in all schools'

3.1.4 Intention to deliver Keys4Life

Fifty-five of 63 school teachers (87%) stated that their school was delivering or planned to deliver Keys4Life in 2021. Six (10%) did not plan to deliver the program and two (3%) were unsure (Table 3.3). This again showed some improvement since the 2015 evaluation where 82% planned to deliver Keys4Life the following year (Metrix Consulting, 2016).

The key reasons for teachers not planning to deliver the program in 2021 or being unsure were:

- Inadequate numbers of eligible students at the school in 2021, who had not already completed Keys4Life
- Keys4Life trained teacher is no longer teaching the year group or learning area where Keys4Life was delivered
- Timetable changes for Keys4Life trained teacher
- School has a mixed cohort so Keys4Life is not run every year

3.1.5 Importance of road safety education

All 66 school teachers (100%) stated that it was 'very important' (n=64, 97%) or 'important' (n=2, 3%) to deliver road safety education programs in schools. In the 2015 evaluation, 90% of teachers rated road safety education programs as 'very important' and 10% as 'important' (Table 3.3) (Metrix Consulting, 2016).

Thirty-five teachers provided explanations for their responses including:

- As schools educate students in many aspects of life, driving should be one of those aspects
- Road safety education builds decision-making skills in real-life situations
- Many students do not have families who are able to help them to get a licence
- It can teach students to be safe behind the wheel before actually learning to drive a car

Table 3.3 Teacher perceptions of Keys4Life: comparison of the 2021 and 2015 evaluations

Perspective	2021	2015
Definitely or very likely to recommend Keys4Life to others	100%	93%
Intends to deliver the program in 2021/ 2016	87%	82%
Rates road safety education programs in schools as 'very important'	97%	90%

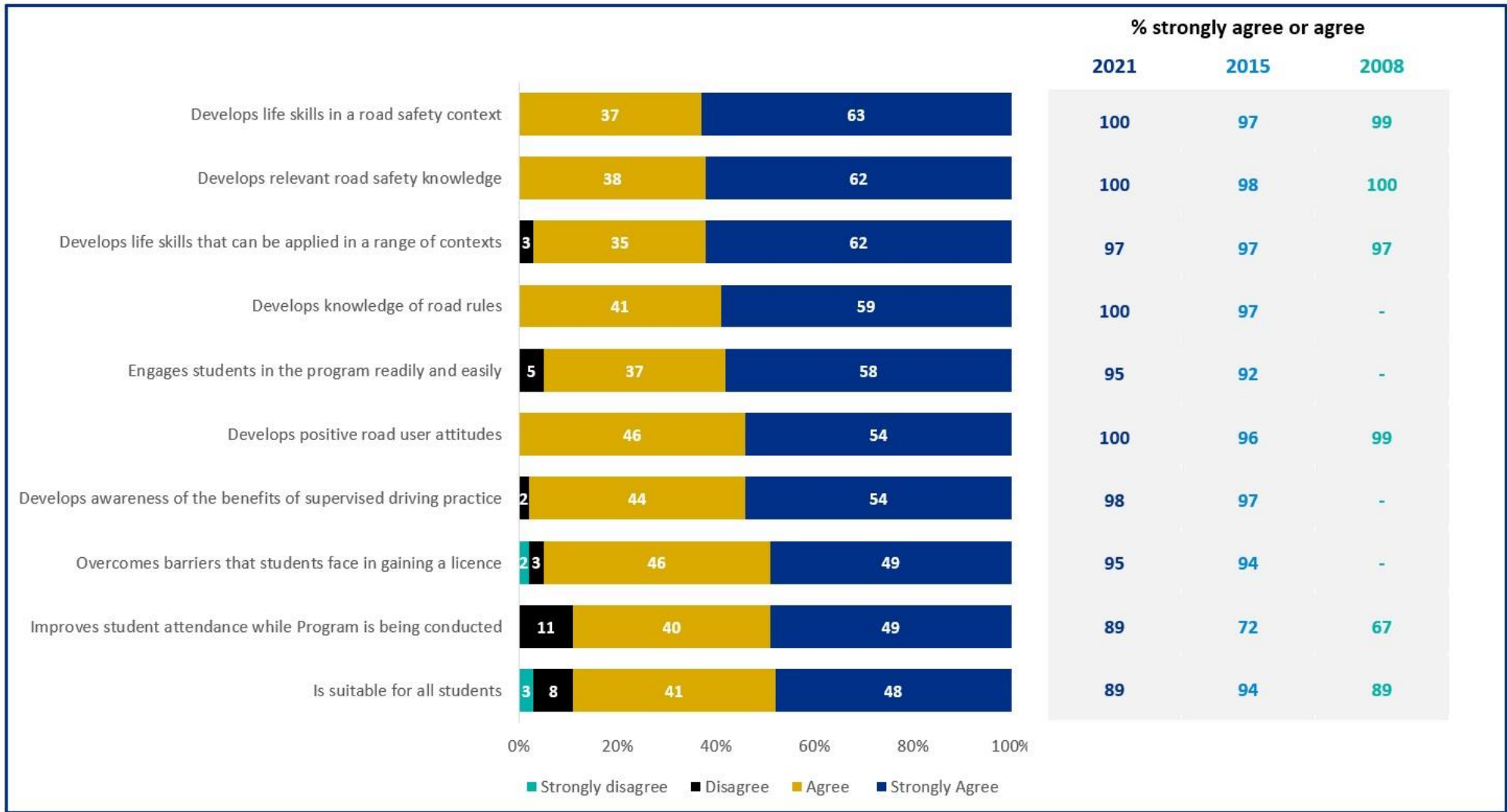
3.1.6 Keys4Life program outcomes/ benefits

Sixty-five participants responded to survey items about outcomes/ benefits of the Keys4Life program. All participants (100%) 'agreed' or 'strongly agreed' that the Keys4Life program: develops life skills in a road safety context (e.g. safer choices, risk avoidance), develops relevant road safety knowledge (e.g. licensing, safer vehicles, safer driving behaviour, first aid), develops knowledge of road rules and develops positive road user attitudes. The majority of participants also 'agreed' or 'strongly agreed' that the program develops awareness of the benefits of supervised driving practise (n=64, 98%), develops life skills that can be applied in a range of contexts (e.g. decision making, planning, assertive communication) (n=63, 97%), engages students in the program readily and easily (n=62, 95%), overcomes barriers that students face in gaining a licence (n=62, 95%), improves student attendance while program is being conducted (n=58, 89%) and is suitable for all students (i.e. from a range of socioeconomic and cultural backgrounds) (n=58, 89%) (Figure 3.2).

The highest levels of disagreement were that the program is suitable for all students and that it improves student attendance while the program is being conducted. Seven participants (11%) 'disagreed' or 'strongly disagreed' with these statements (Figure 3.2).

The proportion of school teachers who 'strongly agreed' or 'agreed' with the benefits of Keys4Life was very similar in 2021, compared to the 2015 and 2008 evaluations (Figure 3.2). (Metrix Consulting, 2016; Office of Road Safety, 2009). However, the proportion of respondents who 'agreed' or 'strongly agreed' that Keys4Life improves student attendance increased from 67% in 2008, to 72% in 2015, to 89% in 2021. A higher proportion of teachers 'strongly agreed' with nine of the 10 items in 2021 compared to 2015, with an average increase of 9% in 'strongly agree' responses. 'Strongly agree' responses increased by 26% for the statement about Keys4Life improving student attendance and 16% for engaging students in the program readily and easily and developing life skills that can be applied in a range of contexts from 2015 to 2021. A breakdown of 'agree' and 'strongly agree' responses was not provided in the 2008 report.

Figure 3.2 School teacher beliefs about benefits of the Keys4Life program in 2021 (n=65), compared to 2015(n=274) and 2008 (n=121)



School teachers elaborated on the benefits of Keys4Life for their students. Several described how Keys4Life provides access to road safety education for students who may be disadvantaged including 'new migrants', 'deaf students', those with 'language delays', students who live in 'remote communities' and those whose 'families are unable to help them get a driver's licence'. Most stated that they modified the program for these groups. Examples include:

- *'... new migrants in particular, don't have the schooling on safety and road awareness and indeed road rules, that our students grow up with'*
- *'If the program is modified, students with severe language delays can get their Learner's Permit'*

Other comments surrounded the benefits relating to parents. For example:

- *Improves 'parent-child relationships/ communication'*
- *'Re-educates parents' and 'prepares them for the practical driving when they reach their Learner's Permit'*

3.1.7 Satisfaction with the Keys4Life program

Overall, there was a high level of satisfaction with the Keys4Life program among school teachers. Over 90% of respondents were 'satisfied' or 'strongly satisfied' with the majority (95%) of the elements of the program. Sixty-six participants responded to the items about satisfaction with the Keys4Life program. The 'don't know/ not applicable' responses were excluded from the percentage calculations for each individual item.

3.1.7.1 Satisfaction with components of Keys4Life

All 66 participants (100%) were 'satisfied' or 'strongly satisfied' with the Keys4Life Professional Development (PD) workshop and links to the WA licensing system, WA curriculum and research. Most were 'satisfied' or 'strongly satisfied' with the accessibility of student and test resources (e.g. test booklets, certificates, student workbook, Drive Safe book) (n=60, 96%), Keys4Life teaching resources (n=58, 95%), availability of ongoing professional development (n=61, 95%), time investment required to plan and implement the program (n=61, 92%), length of the program (10 lessons) (n=57, 88%), ease of following processes and protocols (e.g. for administering the Theory Test and Keys4Life certificate) (n=60, 95%) and record keeping tools (n=62, 95%) (Figure 3.3).

Main areas of dissatisfaction ('dissatisfied' or 'strongly dissatisfied') were the length of program (n=8, 12%), time investment required to plan and implement the program (n=5, 8%), ease of following processes and protocols (n=3, 5%) and record keeping tools (n=3, 5%) (Figure 3.3).

These overall levels of satisfaction are very similar to those reported by school teachers in the 2015 evaluation (Metrix Consulting, 2016). However, a higher proportion of teachers were 'strongly satisfied' with nine of the 10 items in 2021 compared to 2015, with an average increase of 14% in 'strongly satisfied' responses (Figure 3.3).

3.1.7.2 Satisfaction with Keys4Life customer service

Participants were asked about their satisfaction with the ways in which they contact and are serviced by the Keys4Life program, including the website, phone, emails and newsletters. Again, there was a high level of satisfaction with customer service with 95-98% of participants reporting they were '*satisfied*' or '*strongly satisfied*' with each item (Figure 3.4). In terms of '*dissatisfied*' responses, three participants (5%) were dissatisfied with the ease of the website for navigation/ use (Figure 3.4).

Levels of satisfaction with Keys4Life customer service were also high in the 2015 evaluation of school teachers, with 100% of participants '*satisfied*' or '*strongly satisfied*' with five of the eight items (Metrix Consulting, 2016). However, a higher proportion of teachers were '*strongly satisfied*' with each item in 2021 compared to 2015, with an average increase of 13% in '*strongly satisfied*' responses across the eight items. '*Strongly satisfied*' responses increased by 23% for statements surrounding the website providing the information they need and 19% for the ease of navigating/ using the website from 2015 to 2021 (Figure 3.4).

3.1.7.3 Satisfaction with Keys4Life portal

In response to previous feedback from teachers and consultants, an online teacher Keys4Life portal was introduced in 2020 where teachers upload the Learner's Permit Theory Test results and certificates are posted to them. This replaces the previous system where teachers ordered the certificates and filled them in themselves. Thirty-nine respondents (62%) were satisfied with the new system, 12 (19%) were not satisfied and 12 (19%) were unsure.

Figure 3.3 School teacher satisfaction with components of the Keys4Life program in 2021 (n=66), compared to 2015 (n=274)

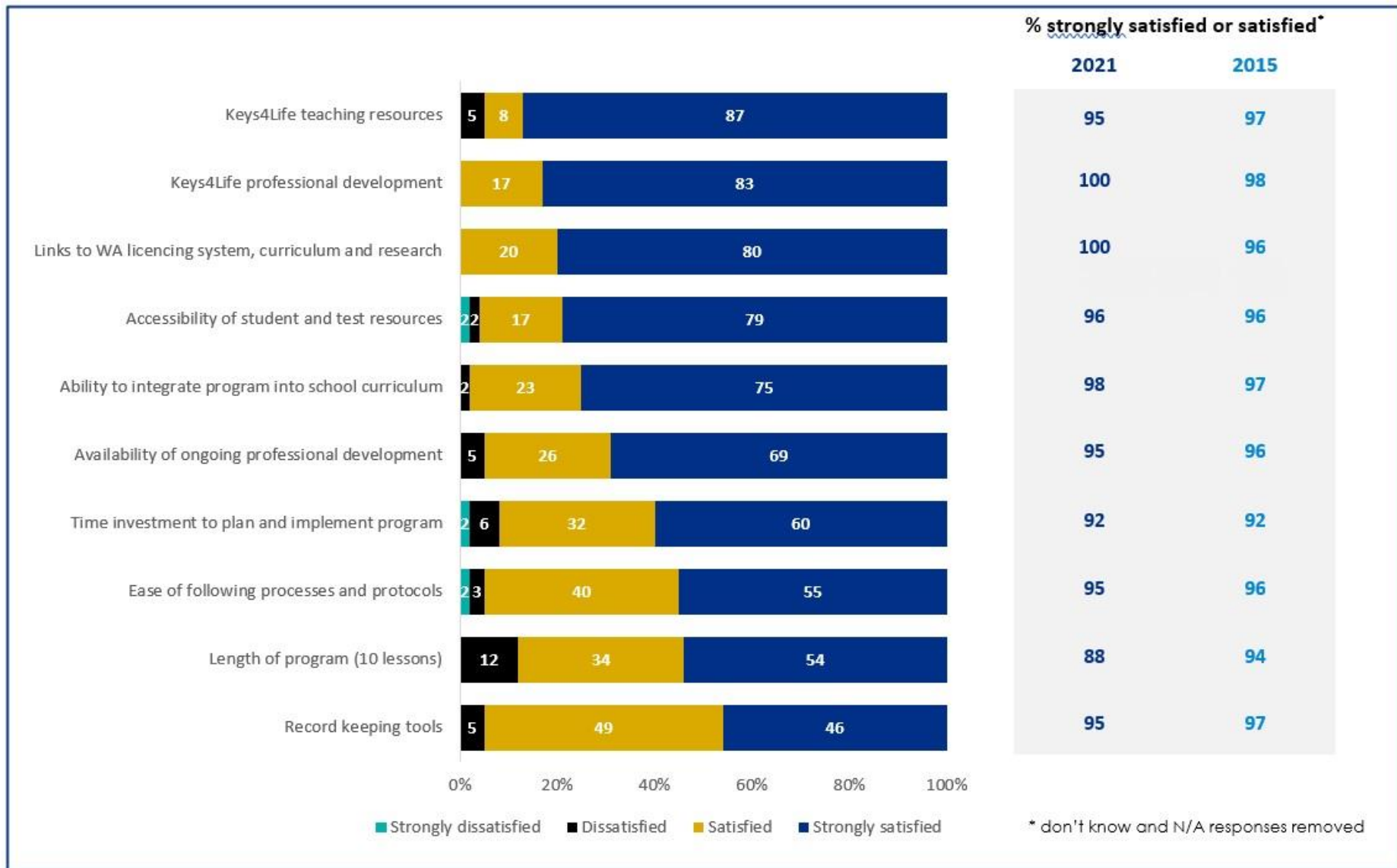
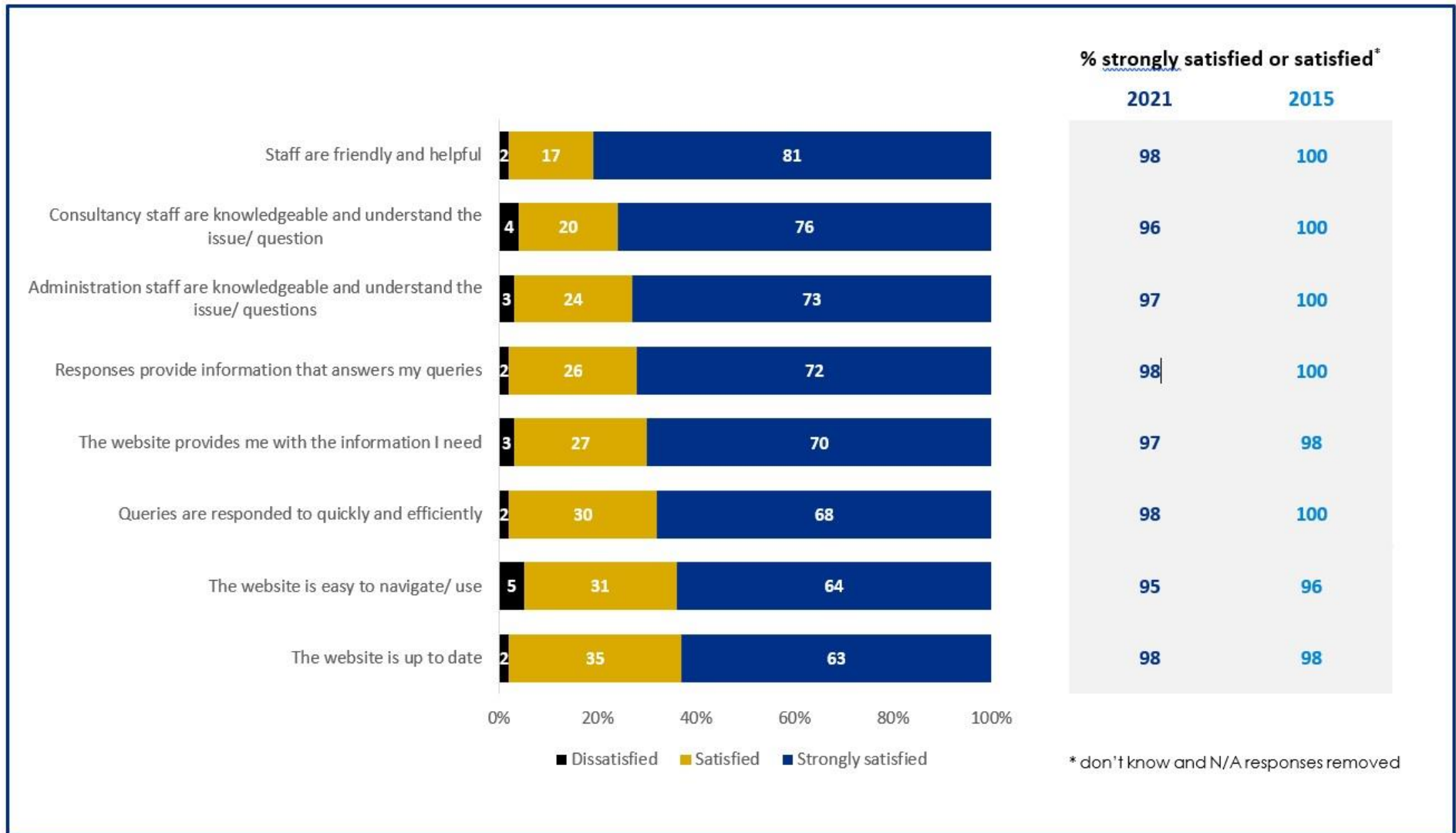


Figure 3.4 School teacher satisfaction with Keys4Life customer service in 2021 (n=66), compared to 2015 (n=274)



3.1.8 Keys4Life program Barriers

School teachers also described barriers or difficulties they had experienced with implementing the Keys4Life program. These included: student characteristics that made participation challenging, the length/ structure of the Keys4Life program, the suitability of Keys4Life resources for disadvantaged students, difficulties using the Keys4Life portal and certificate system, the time investment required from teachers to plan and implement the program and difficulties scheduling/ completing Keys4Life within school timetables. See Table 3.4 for specific comments about these barriers. In the 2015 evaluation, Keys4Life record keeping tools and the time investment required for teachers to plan the program were the most commonly cited barriers (Metrix Consulting, 2016). It should be noted that the Keys4Life portal was only introduced in 2020 in response to previous feedback.

Table 3.4 Comments from school teachers about Keys4Life program barriers

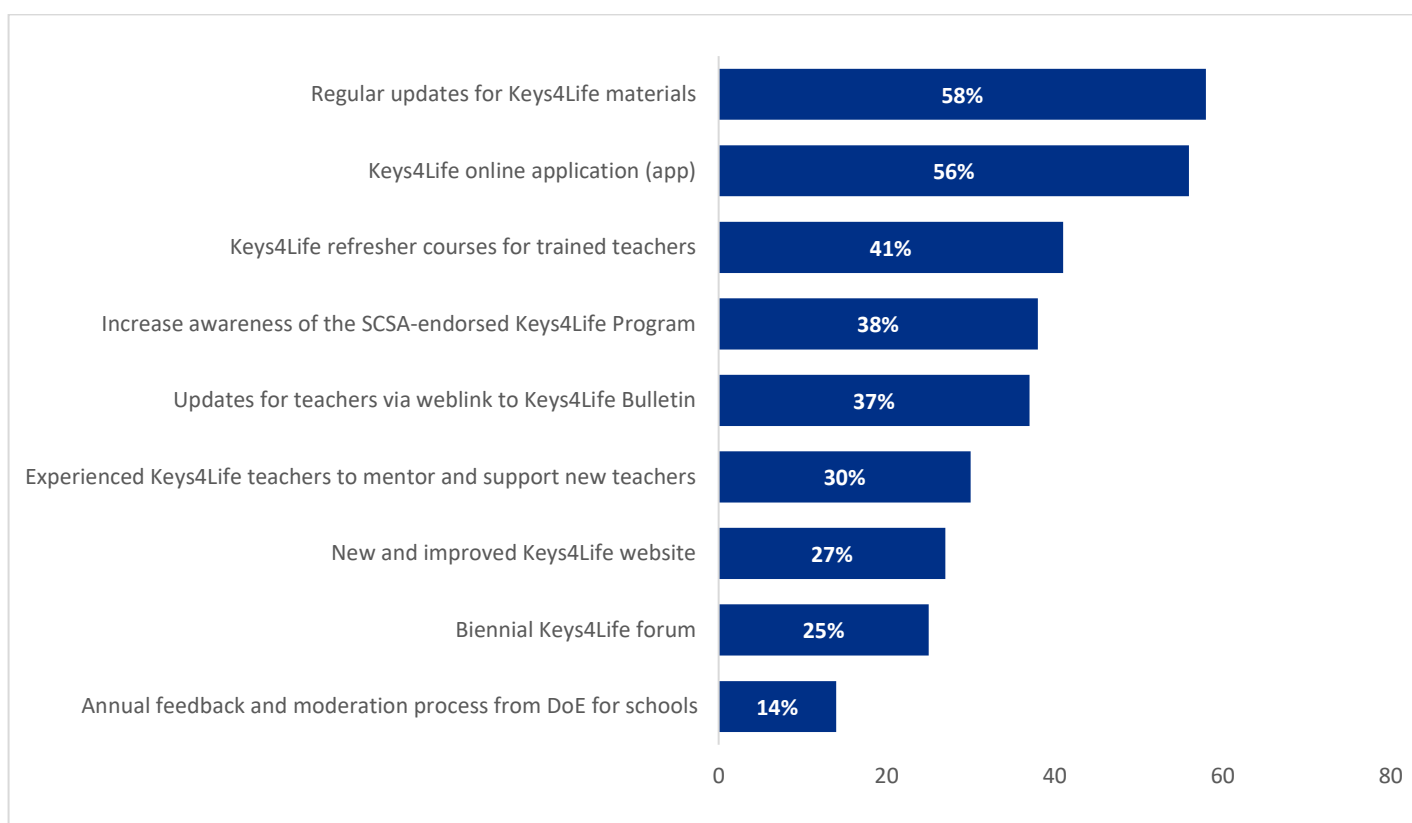
<p>Barriers to school student participation</p> <ul style="list-style-type: none"> • It is difficult to <i>'integrate the program'</i> in an Aboriginal community • <i>'Students need financial and social support in securing their licences'</i> • Students who have English as an additional language (EAL) and language/ literacy issues • Poor attendance at school • Students who don't have parents who drive 	<p>Keys4Life portal and certificates</p> <ul style="list-style-type: none"> • A number of teachers commented that the Keys4Life portal is <i>'difficult to use'</i>, <i>'time consuming'</i> and they had <i>'trouble uploading the file'</i> • Use of the Keys4Life portal was <i>'not communicated well enough to schools in 2020'</i> • <i>'The wait time for certificates is weeks'</i> • Posting certificates to a remote community is <i>'not a good idea'</i>
<p>Length/ structure of program</p> <ul style="list-style-type: none"> • Some participants suggested that the Keys4Life program should be <i>'longer'</i> • <i>'Sometimes it's a little unrealistic with what is expected to fit into one lesson'</i> • <i>'Students become engaged in one activity and difficult to move them on'</i> 	<p>Time investment to plan/ implement</p> <ul style="list-style-type: none"> • <i>'Resource making for lessons is demanding'</i> • A lot of the activities take <i>'lots of time to prep'</i>
<p>Keys4Life resources</p> <ul style="list-style-type: none"> • Resources are <i>'heavily text based'</i> and <i>'content heavy'</i> • Language is <i>'not suited for EAL/ indigenous'</i> • Particular students <i>'learn visually through pictures and not written language'</i> • <i>'We have developed our own versions of these'</i> • Cannot order a large enough number of resources from Northside Logistics • Delays in receiving ordered resources 	<p>Scheduling and completion of Keys4Life</p> <ul style="list-style-type: none"> • School <i>'timetabling issues'</i> • Interruption of Key4Life lessons due to <i>'school events'</i> • Difficult to complete program in time to get certificates back to students • Difficult to complete program if students have low attendance

3.1.9 Improvements to the Keys4Life program

Sixty-three school teachers responded to the survey items about improvements to the Keys4Life program (Figure 3.5). More than half of school teachers indicated that Keys4Life could be improved through regular updates for Keys4Life materials to align with current legislation and research (n=37, 58%) and through a Keys4Life online application (app) for easy and quick access to information (n=35, 56%). Over one-third of participants indicated that the program could be improved through refresher courses for trained Keys4Life teachers (n=26, 41%), increased awareness of the School Curriculum and Standards Authority (SCSA)-endorsed Keys4Life program (n=24, 38%) and updates for teachers by emailing a weblink to the Keys4Life Bulletin (n=23, 37%). Less than one-third indicated that experienced Keys4Life life teachers to mentor and support new teachers (n=19, 30%), new and improved Keys4Life website (n=17, 27%) and a biennial Keys4Life Forum to share and acknowledge new research and different implementation models (n=16, 25%), would improve the program. Only 14% (n=9) thought that an annual feedback and moderation process from DoE for schools would improve the program (Figure 3.5).

The proportion of participants suggesting each improvement was very similar to the 2015 evaluation (Metrix Consulting, 2016). Other suggestions in 2015 surrounded test result submission and issue of certificates, which has since changed.

Figure 3.5 Suggested improvements to the Keys4Life program among school teachers (n=63)



School teachers also made several specific suggestions for improvements that could be made to the Keys4Life program (Table 3.5).

Table 3.5 School teacher suggestions for improvements to the Keys4Life program

<p>Keys4Life resources</p> <ul style="list-style-type: none"> • Make the activities ready-made and available to order • Keys4Life pack provided to schools containing resources, rather than ordering • More up-to-date videos or links to videos • Provide a booklet/ folder for students to put all their sheets of paper in from the activities • One book for students to avoid flipping between student workbook and student journal • Culturally appropriate workbook for indigenous students • Video kit for indigenous students that is culturally appropriate and relevant • Videos about road safety featuring Aboriginal actors • Student workbook and journal for CALD students, students with low literacy, and students with a disability that have simplified language • More visual resources and captioned videos for English as an additional language and low literacy students 	<p>Keys4Life content</p> <ul style="list-style-type: none"> • More alignment between lessons, road rules and student workbook • More activities on road rules • Include practical skills like changing a tyre and checking vehicle • Less large group learning activities • More interactive tasks • Provide links to teachers each year to updated statistics • Indigenous road safety mentors that travel to communities
<p>Professional development, teacher training and updates</p> <ul style="list-style-type: none"> • Refresher courses where the presenter visits the school on PD days • Paid time release for experienced Keys4Life teachers to mentor new teachers 	<p>Length/ structure of program</p> <ul style="list-style-type: none"> • Allow for catch-up lessons in the program • Longer program e.g. 15-20 lessons
<p>Online/ electronic content</p> <ul style="list-style-type: none"> • Keys4Life online lessons • Online activities and games • Student journal as a mobile app 	<p>Test results and Keys4Life certificates</p> <ul style="list-style-type: none"> • Better system for uploading test results (current system generates errors) • Informing teachers immediately when system is changed • Use the same website to upload test results and to order resources (more streamlined)

3.2 Part B: Perspectives of agency teachers

This section details the results of the online survey of teachers who delivered Keys4Life at non-mainstream education and training services (agencies) in 2020.

3.2.1 Participants

Teachers from thirteen (27%) of the 48 agencies (not including Department of Justice locations) that delivered Keys4Life in 2020 completed the survey, between February and April, 2021. This consisted of six regional (46%) and seven metropolitan (54%) agencies. Types of agencies included youth services, disability services, Aboriginal development and training centres, TAFE WA, Curriculum and reengagement in Education (CARE) schools and alternative learning centres and employment and job training centres. The majority of agency teachers (n=8, 62%) first implemented Keys4Life between 2018 and 2020, three (23%) between 2011 and 2013, one (8%) in 2005 and one (8%) in 2003. Not all of the teachers delivered the program every year since they first taught it.

3.2.2 Delivery of Keys4Life lessons by agency teachers

Agency teachers were asked about how they delivered the Keys4Life lessons. Five (39%) agency teachers delivered Keys4Life in 10 separate lessons, five (39%) in less than 10 lessons (2-8 lessons) and three (23%) in 11-20 lessons. Five agency teachers (39%) delivered the Keys4Life course in a total of 10-12 hours, five (39%) took more time (13-40 hours) and three (23%) delivered the course in less than 10 hours (six hours). Over half of the respondents stated that they delivered more than 80% of the Keys4Life content/ activities (n=7, 54%), four (31%) delivered 61-80% and two (15%) delivered 41-60% of the curriculum (Table 3.6).

Compared to the school teachers in Part A of this evaluation, a larger proportion of agency teachers delivered Keys4Life in less than 10 lessons (39% versus 8%) and in less than 10 hours (23% versus 3%).

One agency teacher described how they deliver Keys4Life as a *'consecutive 2-day program'* in their regional community. Healthy food is provided to participants and the course is delivered in the style of a *'professional development'*. In addition, two trained presenters deliver the program, allowing one to focus on content and the other on getting students to *'attend, engage, support them if they feel uncomfortable or if family matters are impacting their focus or attendance'*. Some of the students also need to sit the Learner's Permit Theory test *'one-on-one'* due to literacy levels.

Another agency teacher described how their delivery time of Keys4Life is *'significantly longer'* in order to allow students with disabilities to *'grasp the concepts'*. They also stated that several of their students had previously failed Keys4Life in school due to the *'pace of delivery'*.

Table 3.6 Delivery of Keys4Life lessons by agency teachers (n=13)

Delivery of Keys4Life lessons	N	%
Separate lessons		
2-8 lessons	5	38.5
10 lessons	5	38.5
11-20 lessons	3	23.0
Hours of lessons (total)		
<10 hours	3	23.0
10-12 hours	5	38.5
13-40 hours	5	38.5
Percentage of content/ activities delivered		
More than 80%	7	53.8
61-80%	4	30.8
41-60%	2	15.4
40% or less	0	0.0

3.2.3 Recommendation of Keys4Life

Twelve respondents (92%) stated that they were 'definitely likely' (n=8, 61%) or 'very likely' (n=4, 31%) to recommend the Keys4Life program to teachers at other agencies. One participant (8%) was 'somewhat likely' to recommend the program. This was similar to school teachers where 100% were 'definitely likely' or 'very likely' to recommend the program. Statements from agency teachers included:

- 'I truly love all the Keys4Life program and resources, it is such a practical application of knowledge and driver responsibility and presented in a way the low-literacy participants can understand, connect with, and take on board for informed decision-making'
- 'This is a wonderful course that can be easily adapted and extended for students from an ESL or disability background'

3.2.4 Intention to deliver Keys4Life

Nine agency teachers (69%) stated that they were delivering or planned to deliver Keys4Life in 2021. Two (15%) did not plan to deliver the program and two (15%) were unsure. The proportion of agency teachers planning to deliver Keys4Life in 2021 (69%) was lower than for school teachers in this evaluation (87%). The key reasons for agency teachers not planning to deliver the program in 2021 or being unsure involved:

- Class numbers and other student requirements
- Agency not recognise the importance of Keys4Life
- Most of the students already have Learner's permits
- Personal time commitment issues

3.2.5 Importance of road safety education

All 13 agency teachers stated that it was 'very important' (n=12, 92%) or 'important' (n=1, 8%) to deliver road safety education programs in non-school settings. This response was very similar to school teachers in Part A. Ten agency teachers provided explanations for their responses including:

- Driving on the road has potentially life changing outcomes
- Road crashes are common
- It moderates risk taking behaviours of young people
- Captures and supports high risk participants including those disengaged from mainstream schooling, low literacy, previously homeless participants
- Allows students with learning and/ or physical disabilities to access the program
- Allows modified delivery of the course for those who need it
- Allows delivery to students of a range of ages

3.2.6 Keys4Life program outcomes/ benefits

All 13 agency teachers (100%) 'agreed' or 'strongly agreed' that the Keys4Life program: develops awareness of the benefits of supervised driving practise, engages students in the program readily and easily and develops positive road user attitudes (Figure 3.6). Twelve participants (92%) 'agreed' or 'strongly agreed' that the Keys4Life program develops life skills in a road safety context, develops relevant road safety knowledge, develops life skills that can be applied in a range of contexts and overcomes barriers that students face in gaining a licence. Eleven participants (85%) 'agreed' or 'strongly agreed' that Keys4Life is suitable for all students. There was a total of six 'disagree' statements and these came from three different participants (Figure 3.6). The responses about Keys4Life outcomes/ benefits from agency teachers were very similar to those of the school teachers in Part A of this evaluation.

Participants elaborated on the benefits of Keys4Life for agency students. The majority of comments surrounded how Keys4Life allowed those who may be disadvantaged such as youth who have left school, have a disability, are transient or homeless, those with low literacy or education, have English as an additional language and people of different ages to gain access to road safety education and obtain their Learner's Permit. For example:

- *'Without this current Keys4Life program many of the school-age participants as well as older Aboriginal participants would not have been able to pass their Ls theory test'*

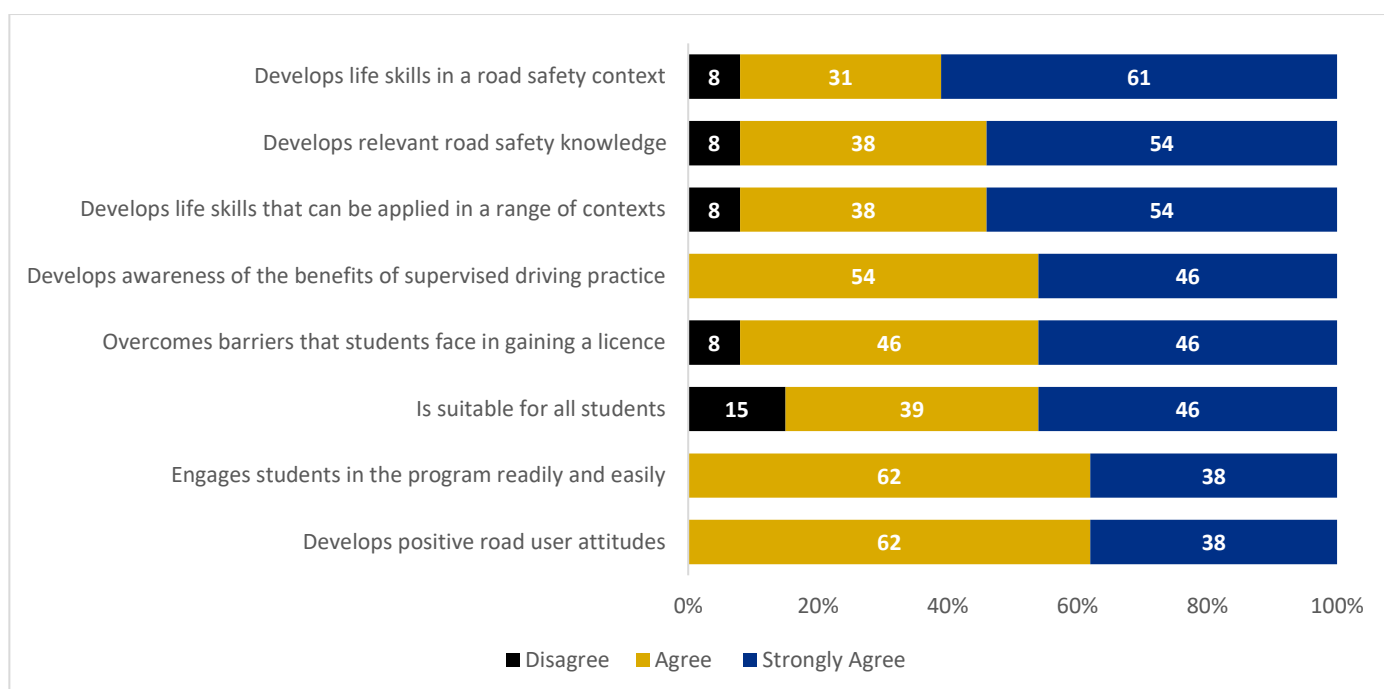
There were also several comments surrounding additional benefits for students participating in Keys4Life that were not related to road safety or driving. For example:

- *'Provides a means of success ... and allows for independent identity' for students with a disability.*
- *'Increase ability to problem solve. Assists in developing literacy skills. Develops confidence. Social benefits. Opportunity to attend an adult learning environment'*

Other benefits related to the adaptability of the Keys4Life program to suit the needs of a variety of different students. For example:

- The course can be adapted to 'accommodate the learning needs of clients from different backgrounds'
- 'Adapting the lessons and resources to their level allows our students to gain the same knowledge and information of driving but at their appropriate level'

Figure 3.6 Agency teacher beliefs about benefits of the Keys4Life program (n=13)



3.2.7 Satisfaction with the Keys4Life program

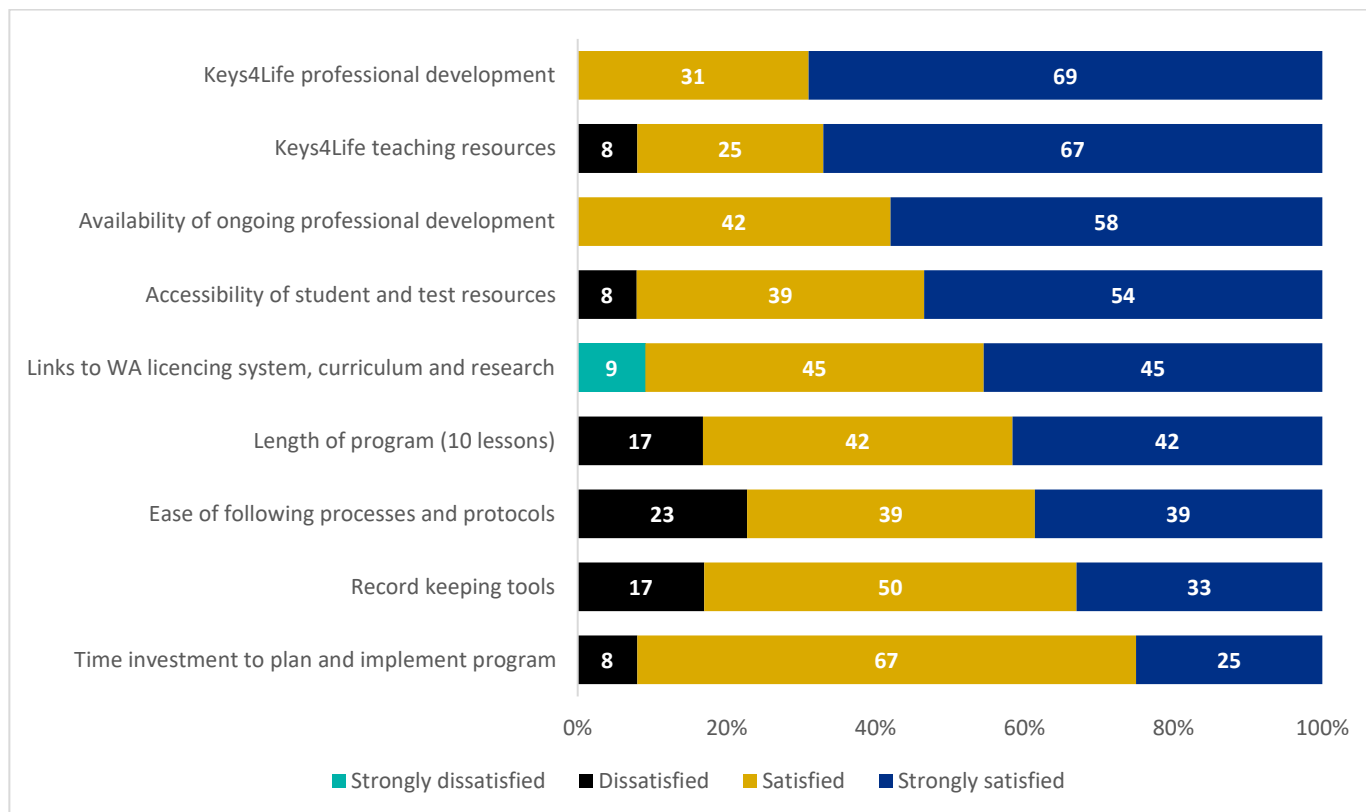
Overall, there was a high level of satisfaction with the Keys4Life program among agency teachers. Over 80% of respondents were 'satisfied' or 'strongly satisfied' with the majority (95%) of the elements of the program. The 'don't know/ not applicable' responses were excluded from the percentage calculations for each individual item.

3.2.7.1 Satisfaction with components of Keys4Life

All participants (100%) were 'satisfied' or 'strongly satisfied' with the Keys4Life PD (n=13) and the availability of ongoing PD (n=12). The majority were also 'satisfied' or 'strongly satisfied' with the Keys4Life teaching resources (n= 11, 92%), accessibility of student and test resources (n=12, 92%), time investment to plan and implement program (n=11, 92%), links to the WA licensing system, curriculum and research (n=10, 90%), length of program (10 lessons) (n=10, 83%), record keeping tools (n=10, 83%), and ease of following processes and protocols (n=10, 77%) (Figure 3.7). Examination of 'dissatisfied' responses showed they were spread amongst participants. Eight participants had no 'dissatisfied' responses, two were 'dissatisfied' with one item only and three were 'dissatisfied' with three areas.

While agency teachers and school teachers reported high levels of satisfaction with the components of the Keys4Life program, a larger proportion of school teachers were 'strongly satisfied' with these components than agency teachers. In addition, a larger proportion of agency teachers were dissatisfied with the ease of following processes and protocols (23% versus 5%) and record keeping tools (17% versus 5%), compared to school teachers.

Figure 3.7 Agency teacher satisfaction with components of the Keys4Life program (n=13)



3.2.7.2 Satisfaction with Keys4Life customer service

Participants were asked about their satisfaction with the ways in which they contact and are serviced by the Keys4Life program, including website, phone, emails and newsletters. Similar to the findings for school teachers in Part A, there was a high level of satisfaction with customer service among agency teachers. Excluding those who responded 'don't know/ not applicable', all participants (100%) were 'satisfied' or 'strongly satisfied' in terms of the three website-related items including the website is up to date (n=12), provides me with the information I need (n=12) and is easy to navigate/ use (n=11). The majority of participants (92%) were also 'satisfied' or 'strongly satisfied' with all other areas of customer service (

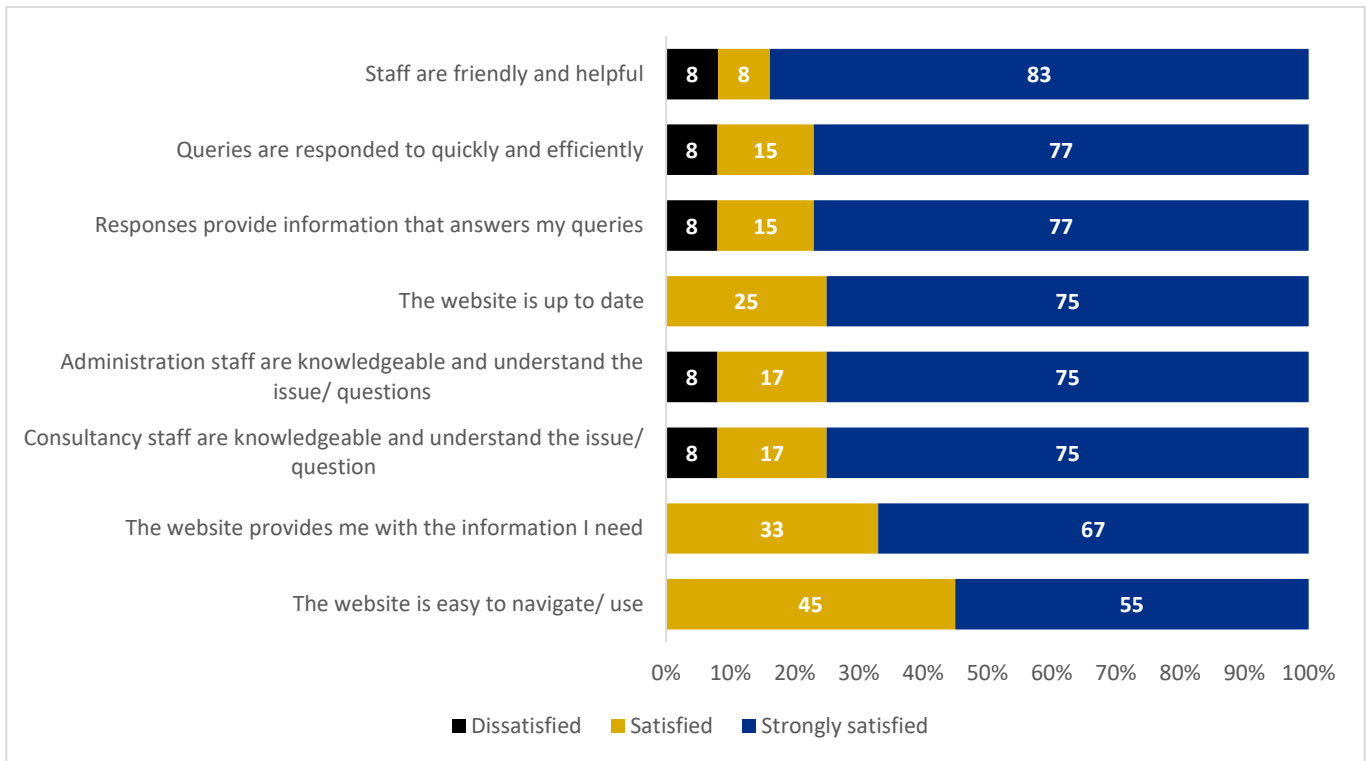
Figure 3.8). There was a total of five 'dissatisfied' responses regarding customer service and all of these all came from one participant.

3.2.7.3 Satisfaction with Keys4Life portal

As described in Part A, an online teacher Keys4Life portal was introduced in 2020 where teachers upload the Learner's Permit Theory Test results and the certificates are posted to them. Similar to

responses from school teachers, seven agency teachers (54%) were 'satisfied' with the new system, three (23%) were 'not satisfied' and three (23%) were 'unsure'.

Figure 3.8 Agency teacher satisfaction with Keys4Life customer service (n=13)



3.2.8 Keys4Life program Barriers

While the overall response from agency teachers to the Keys4Life program was very positive, they also identified a number of barriers to implementing the program in their specific agencies or communities. These barriers included: student characteristics that made participation challenging, the length/ structure of the Keys4Life program, the suitability of Keys4Life resources for agency teachers and students, difficulties using the Keys4Life portal and certificate system, the time investment required from agency teachers to plan and implement the program and the qualifications required to deliver the Keys4Life program. Barriers relating to disadvantaged students were commonly raised by both school and agency teachers in this evaluation. A noticeable difference however, was that while some school teachers commented that the Keys4Life program was too short, agency teachers commented that the program and lessons were too long. The qualifications required to deliver Keys4Life also presented a unique barrier for agency teachers. Table 3.7 details the specific comments about these barriers. It should be noted that several agency teachers stated they personally adapted the Keys4Life program structure, length, content and/ or materials to suit their specific student group (e.g. literacy/ learning/ language support needs or disability). However, few stated this was a barrier to implementing the program.

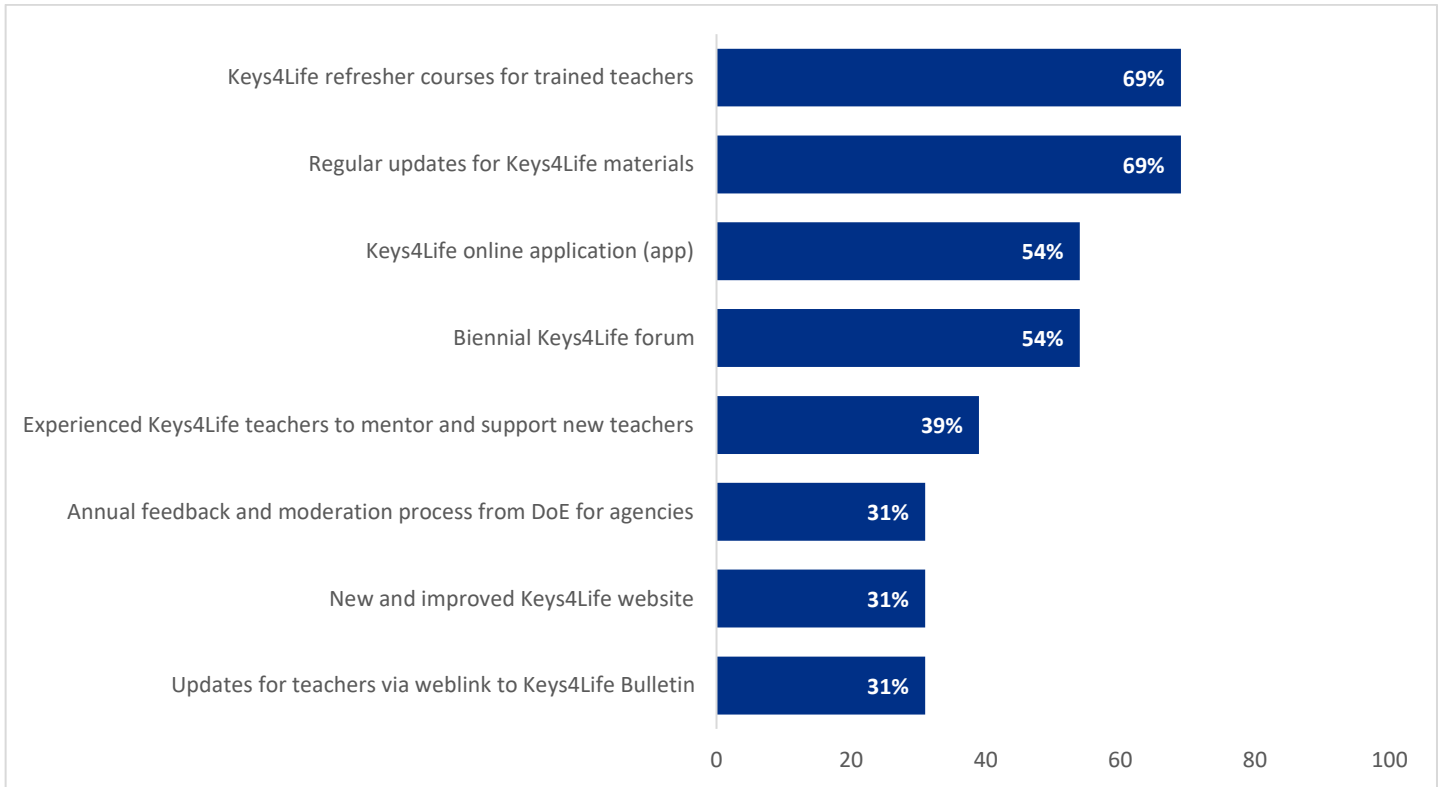
Table 3.7 Comments from agency teachers about Keys4Life program barriers

<p>Barriers to agency student participation</p> <ul style="list-style-type: none"> • Students may be 'transient/ homeless' • Shorter 'attention span of students' • Low literacy and education levels of students • Cost of learning to drive after Keys4Life and difficulty completing supervised driving hours affects the participation of students in poverty and 'ripples into their learning' 	<p>Keys4Life portal and certificates</p> <ul style="list-style-type: none"> • 'The certificate system takes quite some time' • 'Keys4Life certificates are often taking 3 months or more to be distributed and the young people we work with often disengage in this time... we jump straight to the Department of Transport for the CTT and have not been submitting test results for the Keys4Life certificate' • The portal is 'quite difficult as I usually do 1 on 1 lessons'
<p>Length/ structure of program</p> <ul style="list-style-type: none"> • '10 sessions can sometimes be a barrier for youth at risk clients as they are very transient' • Individual lessons are 'too long' • 'Students sometimes just go to the post office due to the commitment required' 	<p>Time investment to plan/ implement</p> <ul style="list-style-type: none"> • As clients speak limited English they 'require amendments to the program before teaching' • It takes time to put Keys4Life lessons into 'PowerPoint format' to deliver
<p>Keys4Life resources</p> <ul style="list-style-type: none"> • 'Needs to be accessible for people of a different language or disabled' • 'It is not easy to locate the online practice tests for revision for the Learner's Permit Theory test' 	<p>Teacher qualifications</p> <ul style="list-style-type: none"> • Needing a Certificate 4 in Training and Assessing specifically 'seems excessive'. • 'Spending \$3000 on a Certificate and 12 months of study was expensive, time consuming'.

3.2.9 Improvements to the Keys4Life program

The majority of agency teachers (n=9, 69%) indicated that the Keys4Life program could be improved through Keys4Life refresher courses for registered (trained) Keys4Life teachers and regular updates for Keys4Life materials to align with current legislation and research (Figure 3.9). In addition, seven participants (54%) suggested that a Keys4Life online application (app) for easy and quick access to information and a biennial Keys4Life forum to share and acknowledge new research and different implementation models, would improve the program. Approximately one third of participants (n=4, 31%) suggested experienced mentors, annual feedback and moderation process, new and improved Keys4Life website and updates for teachers via weblink to Keys4Life Bulletin would improve the program (Figure 3.9). Compared to school teachers, a higher proportion of agency teachers supported Keys4Life refresher courses (69% versus 41%), a biennial Keys4Life forum (54% versus 25%) and an annual feedback and moderation process (31% versus 14%).

Figure 3.9 Suggested improvements to the Keys4Life program among agency teachers (n=13)



Agency teachers also made several specific suggestions for improvements that could be made to the Keys4Life program (Table 3.8).

Table 3.8 Agency teacher suggestions for improvements to the Keys4Life program

<p>Keys4Life resources</p> <ul style="list-style-type: none"> • Provision of lesson plans for Keys4Life teachers in PowerPoint format • A Keys4Life app for teachers • A Keys4Life app for students • Modified resources that are accessible for students who have a disability, low literacy or education or EAL • A version of the student journal that is more suitable for adults with families, rather than high school students • Practice tests for Learner's Permit on the Keys4Life website 	<p>Professional development, teacher training and updates</p> <ul style="list-style-type: none"> • Reimbursement for not-for-profit organisations that send teachers to the Keys4Life PD • Update agency teachers on road rules and the latest road safety information <p>Use online meetings to update agency teachers on relevant information</p>
<p>Keys4Life content</p> <ul style="list-style-type: none"> • More items on defensive driving skills 	<p>Length/ structure of program</p> <ul style="list-style-type: none"> • A version of the Keys4Life program with reduced number of lessons (due to transient nature of students) • Shorter sessions • A version of the Keys4Life program that can be delivered online
<p>Keys4Life certificates</p> <p>Teachers issue the Keys4Life certificates (in order to reduce time taken for students to receive their certificate)</p>	<p>Other</p> <ul style="list-style-type: none"> • A follow-on program for students in low-socioeconomic circumstances who complete Keys4Life through agencies, to assist with subsidised driving lessons and supervised driving in order for these students to obtain their provisional licence.

3.3 Part C: Perspectives of school students

Part C details the perspectives of school students who participated in the Keys4Life program in Term 1 or 2 of 2021. Students who filled in the second survey after completion of Keys4Life (described later in Part F) were also asked to provide their perspectives on the Keys4Life program.

3.3.1 Participants

A total of 231 school students responded to the survey items about their perspectives on the Keys4Life program between April and August 2021. These students represented approximately 1% of students who participate in Keys4Life each year (22,494 students in 2020). More than half were female (n=124, 54%), all were Year 10 students and the majority were aged 15 years (n=195, 84%), with 36 (16%) aged 14 years. A total of 199 participants (86%) attended schools in the metropolitan area and 32 (14%) in regional areas. One hundred and twenty students (52%) attended AISWA schools, 63 (27%) attended DoE schools and 48 (21%) attended CEWA schools. In addition, 34 students (15%) had attended a Keys4Life Parent Student Workshop (Table 3.9).

The students were from 27 of approximately 254 schools (11%) that deliver Keys4Life. This included 20 metropolitan (74%) and seven regional (26%) schools. Thirteen were DoE schools (48%), 11 AISWA schools (41%) and three CEWA schools (11%). Metropolitan and AISWA schools were over-represented in this sample (65% of Keys4Life schools in 2020 were metropolitan and 28% were AISWA) (Fraser et al., 2021).

Table 3.9 Characteristics of school students (n=231)

Characteristics	N	%
Gender		
Male	107	46.3
Female	124	53.7
Age (years)		
14	36	15.6
15	195	84.4
Region		
Metropolitan	199	86.1
Regional	32	13.9
School system		
DoE	63	27.3
CEWA	48	20.8
AISWA	120	51.9
Attended Keys4Life Parent/ Student workshop		
Yes	34	14.7
No/ Unsure	197	85.3

3.3.2 Result of Keys4Life participation

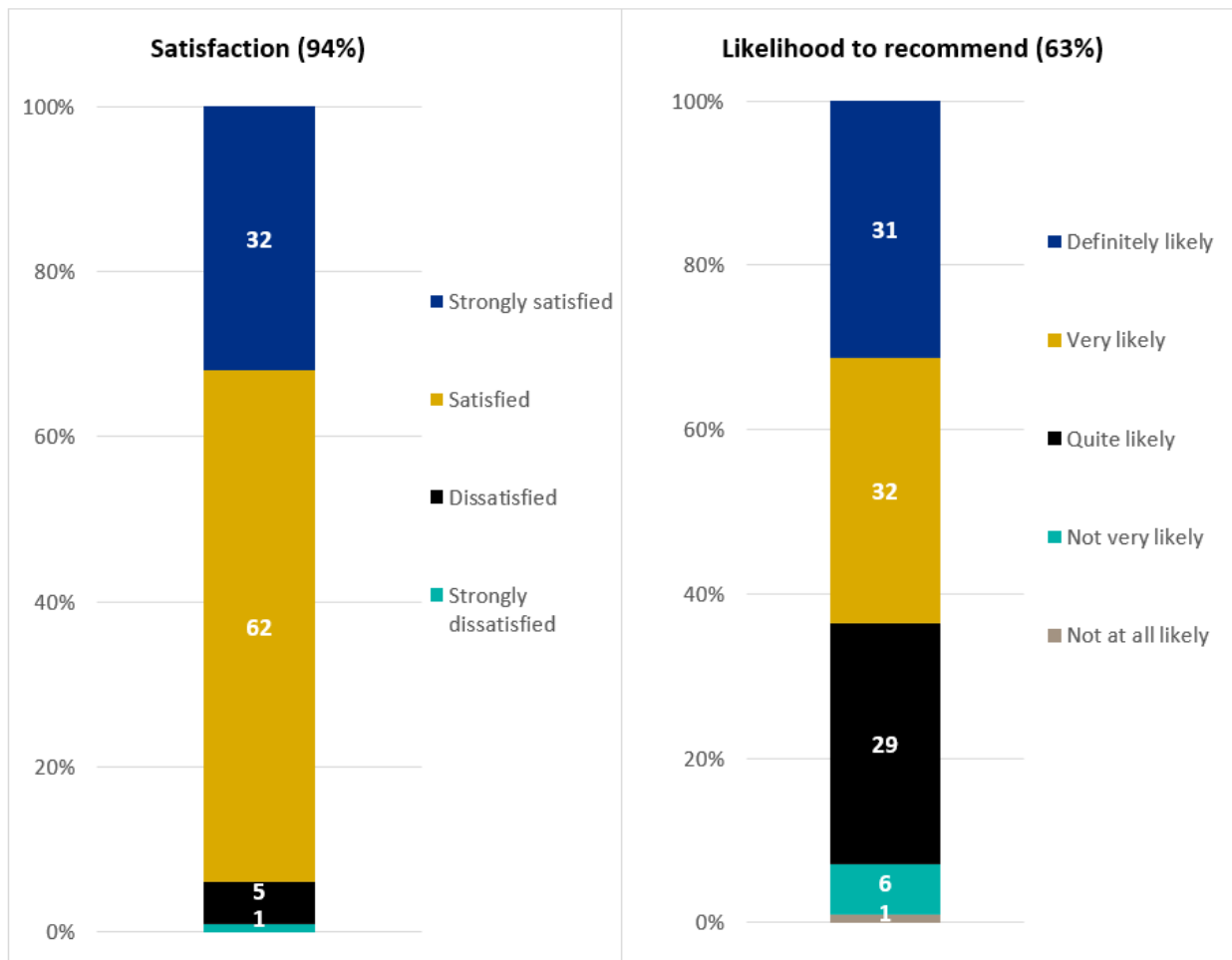
All school students included in the evaluation had finished the Keys4Life lessons and 181 (78%) of these had completed the Learner's Permit test and received their results. A total of 169 (93%) of these students passed the Learners Permit test and 12 (7%) did not pass. This closely reflects the pass rate of the total population of Keys4Life students in 2020 (92%). The remaining 50 students had not yet sat the test or had not received their result.

3.3.3 Satisfaction with Keys4Life and recommendation of the program

The majority of school students (n=205, 94%) were satisfied with the Keys4Life lessons, with 70 reporting they were 'strongly satisfied' (32%) and 135 'satisfied' (62%). Ten students (5%) were 'dissatisfied' and two were 'strongly dissatisfied' (1%). Fourteen 'don't know' responses were excluded from the analysis (Figure 3.10).

The majority of school students (n= 136, 63%) were also likely to recommend the Keys4Life program to other students with 67 (n=31%) reporting they were 'definitely likely' and 69 (32%) 'very likely' to recommend the program. Sixty-three students (29%) were 'quite likely', 12 students (6%) were 'not very likely' and three (1%) were 'not at all likely' to recommend the program. Fifteen 'don't know' responses were excluded from the analysis (Figure 3.10).

Figure 3.10 Student satisfaction (n=217) and likelihood to recommend (n=216) Keys4Life



Statements from school students about their satisfaction with the program included:

- *'I thought the Keys4Life lessons were very helpful and great for setting me up to get my L plates'*
- *'I am more confident now than I was before the Keys4Life program in regards to me driving later on this year'*
- *'The Keys4Life program really helped me understand the traffic rules, effects of alcohol use and ways to drive safely and lowering risks of crashing'*

Some of the students elaborated on why they were dissatisfied with the program. The majority of these comments surrounded that Keys4Life does not focus on teaching the road rules assessed in the Learner's Permit test. For example:

- *'... the program did not teach any real road rules'*
- *'The lessons were only focused on driving risks. Whilst I think these aspects are very important to learn, I don't think it was necessary for them to be the only part of the program with no actual road rules taught at all.'*
- *'What we learnt about in the lessons had almost nothing to do with what was in the test'*


Other comments included that the program was *'too content heavy'* and that the focus on risk taking in Keys4Life could be *'overwhelming'* for people who were *'already nervous to drive'*. Another student expressed that although they had missed several lessons, they had caught up on the content but were not permitted to sit the Learner's Permit test.

The 2015 Keys4Life evaluation also asked 71 students about their satisfaction with and likelihood to recommend the program (Metrix Consulting, 2016). A slightly higher proportion of students reported that they were satisfied with the program (*'satisfied'* or *'strongly satisfied'*) in 2015 (98%), compared to 2021 (94%). A slightly higher proportion of students were also likely to recommend the program (*'very likely'* or *'definitely likely'*) to other students in 2015 (67%), compared to 2021 (63%). It should be noted that the 2015 survey was filled in by students at the Keys4Life Parent/ Student workshop so students may not have completed the program at that time.

3.3.4 Outcomes/ benefits of Keys4Life for students

Students responded to five items about the outcomes/ benefits of the Key4Life program. The majority *'agreed'* or *'strongly agreed'* that as a result of the Keys4Life program, they understand the risk of alcohol and other drugs in relation to driving (n=222, 96%), believe the more hours of supervised driving a learner does, the safer they will be on P-plates (n=216, 94%), feel more confident in driving/ learning to drive (n=204, 88%), believe a safer car will protect me and my passengers in the event of a crash (n=200, 87%) and understand the licensing system (n=197, 85%) (Figure 3.11).

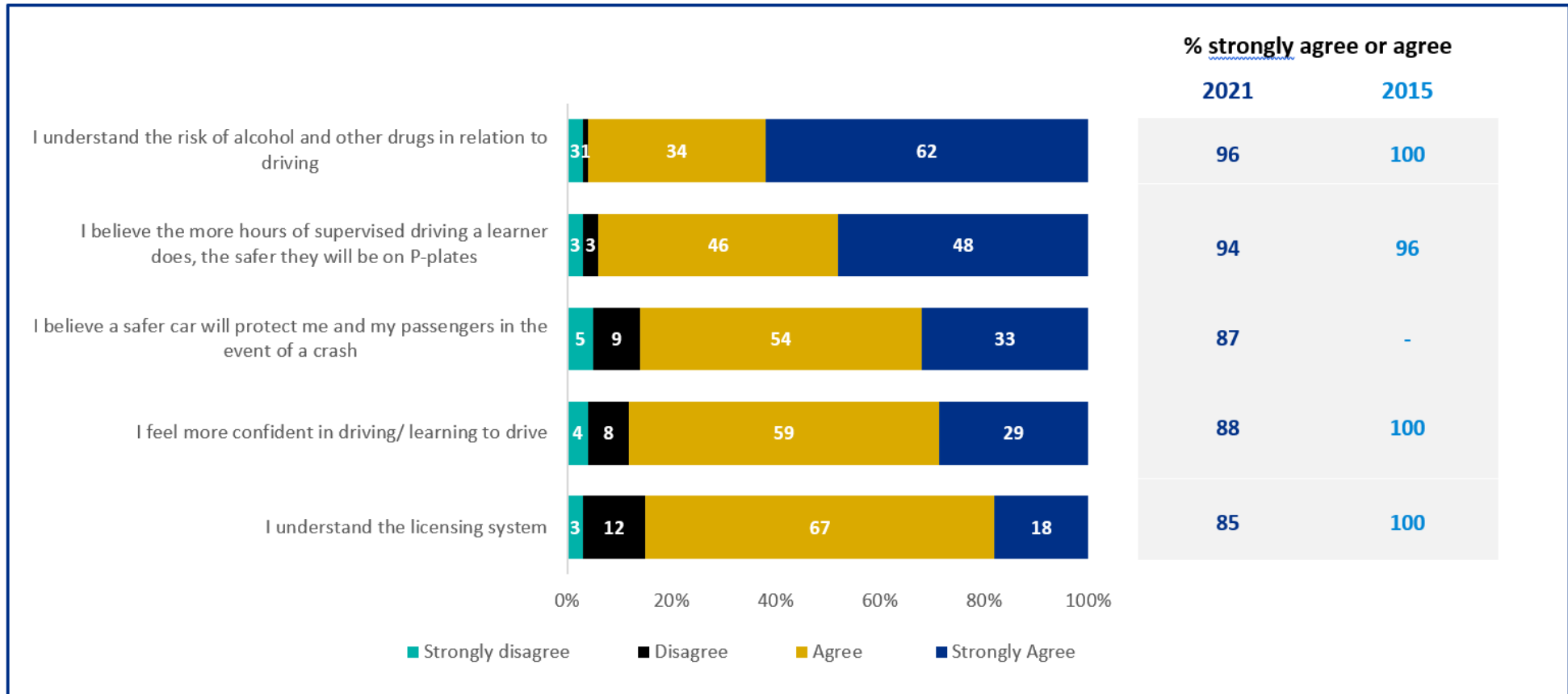
The items with the highest level of disagreement involved understanding the licensing system (15%) and that a safer car will protect them and their passengers in the event of a crash (13%). In comparison, the Phase 1 evaluation of students who attended the Parent/ Student workshop between 2017 and 2019 found that 98% responded that they understood the benefits of choosing a vehicle with a high safety rating (Fraser et al., 2021). In addition, 100% of students in the 2015



evaluation completed at the Parent/ Student Workshop stated that they understood the licensing system (Metrix Consulting, 2016).

The overall levels of agreement with the benefits of the program in the current student evaluation were lower than in the 2015 evaluation where 96-100% 'agreed' or 'strongly agreed' with four of the items (Metrix Consulting, 2016). In the 2008 evaluation (n=118), 94% of students 'agreed' or 'strongly agreed' that increasing the number of hours of supervised driving practise enhances the safety of younger drivers (Office of Road Safety, 2009). This was the only comparable item between the 2008 and 2021 evaluations. The 2008 evaluation was undertaken at the completion of the program, and showed the same level of agreement for this item as in 2021 (94%).

Figure 3.11 Student perspectives on the outcomes of the Keys4Life program in 2021 (n=231), compared to 2015 (n=71)

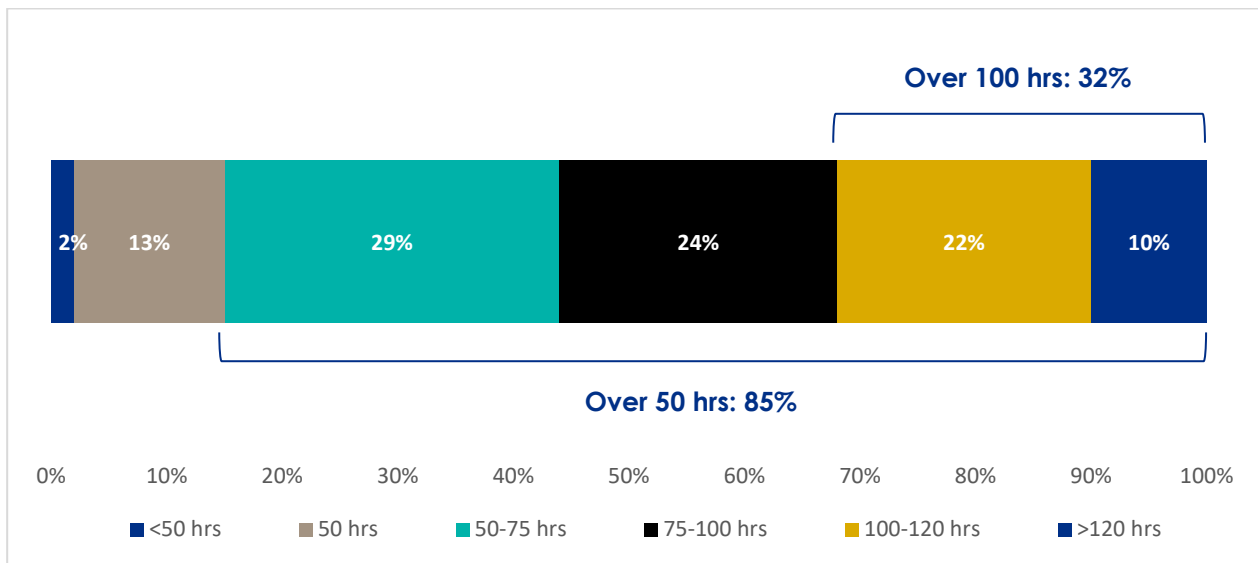


3.3.5 Intended hours of supervised driving

After completing the Keys4Life program, the majority of students (n=197, 85%) reported that they intended to achieve and record more than the required 50 hours of supervised driving in their log book. Seventy-four students (32%) intended on achieving more than 100 hours. Thirty students (13%) intended on completing the required 50 hours only and four students (2%) less than 50 hours (Figure 3.12).

Students in this evaluation were slightly less likely to intend to achieve more than 50 hours of supervised driving than in the 2015 evaluation completed at the Parent/ Student workshop (89% in 2015 versus 85% in 2021) (Metrix Consulting, 2016).

Figure 3.12 Intended hours of supervised driving after Keys4Life program (n=231 students)

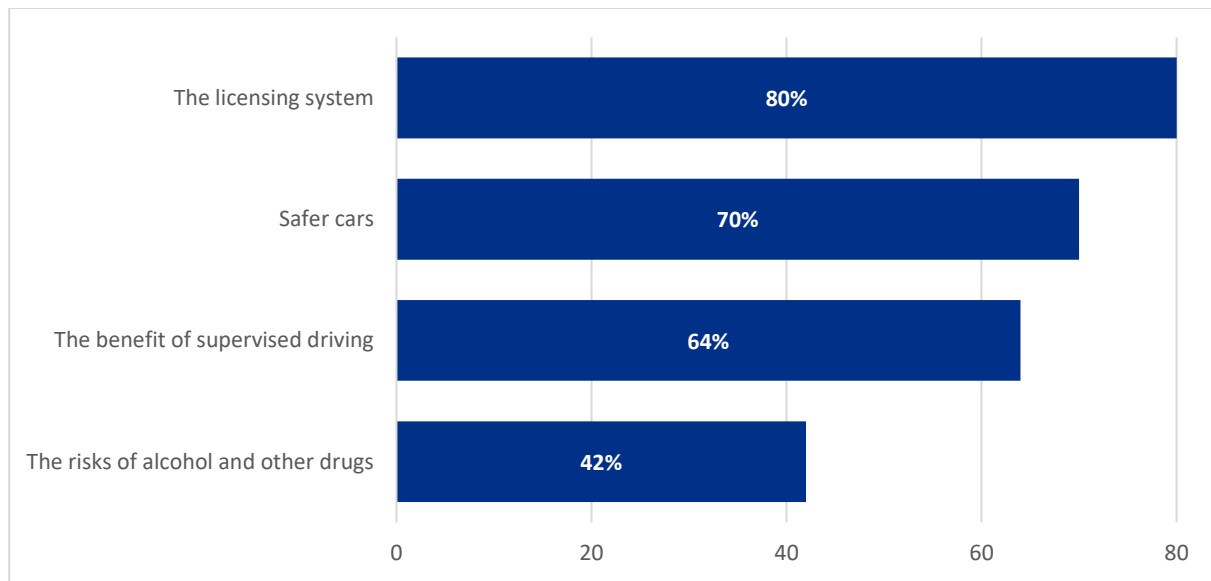


3.3.6 Keys4Life program areas

Students were asked whether they would like the Keys4Life program to deliver more information on four areas. Eighty percent of students stated that they would like more information on the licensing system (n=184), 70% on safer cars (n=162) and 64% on the benefit of supervised driving (n=147). Less than half would have liked more information on the risks of alcohol and other drugs (n=96, 42%) (Figure 3.13).

In the 2015 evaluation conducted at the Parent/ Student Workshop, a lower proportion of students stated that they would like the program to deliver more information on the benefits of supervised driving (52% versus 64%) and the licensing system (44% versus 80%), compared to 2021. (Metrix Consulting, 2016).

Figure 3.13 Proportion of students who would like more information on Keys4Life program areas (n=231)



3.3.7 Improvements to the Keys4Life program

School students also made several suggestions for improvements that could be made to the Keys4Life program. These comments all related to the content of Keys4Life and are listed in Table 3.10.

Table 3.10 School student suggestions for improvements to the Keys4Life program

Keys4Life content	
•	More focus on teaching the road rules required to pass the Learner's Permit test
•	More practical driving content e.g. how to turn at an intersection, use of traffic lights and roundabouts, safe overtaking
•	Too much content on drugs and alcohol as it has been covered multiple times before in other classes
•	Significant information was emphasised more effectively at the Parent/ Student workshop, than in the lessons
•	More information explaining the licensing system
•	Include content on car features and how to use them (e.g. traction control, high beams)
•	Include tips for buying your first car
•	Include simulation activities that demonstrate how distraction due to passengers or mobile phone use can lead to crashes
•	Keys4Life should link to further programs that provide continuing education on road safety once students have passed the Learners Permit test

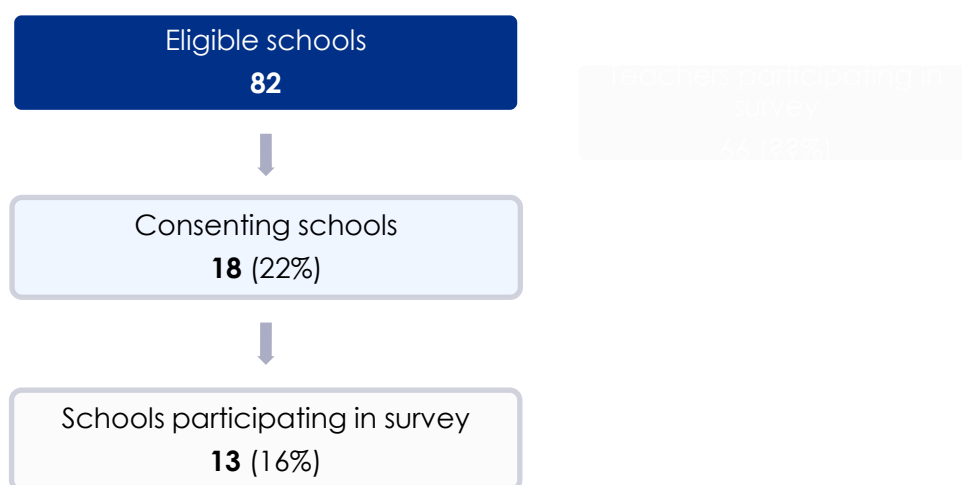
3.4 Part D: Perspectives of non-engaged schools

This section details the results of the online survey of schools that had the capacity to implement Keys4Life in 2020, but did not implement the program. Principals or those in positions of leadership at the school completed the survey.

3.4.1 Participants

A total of 18 Principals (22%) out of the 82 schools with capacity that did not implement Keys4Life in 2020, consented for their school to participate in the evaluation. Representatives of 13 (16%) of the 82 eligible schools completed the survey between March and April 2021 (Figure 3.14). This consisted of eight regional (62%) and five metropolitan (38%) schools. The majority were DoE schools (n=11, 85%), with one CEWA (8%) and one AISWA (8%) school taking part. DoE schools were over-represented in this sample (85%) compared to the total number of schools with capacity that did not implement Keys4Life (56% DoE schools). More than half of respondents were the Principal of the school (n=7, 54%) with the other six respondents (46%) holding positions of leadership including Deputy Principal, Head of Learning Area and Student Services Manager. Respondents had been employed at their current school for 1-5 years with a mean of 2.6 years (SD: 1.5). They had held their current role at the school for 1-5 years with a mean of 2.4 years (SD: 1.4).

Figure 3.14 Participation in the Keys4Life survey for non-engaged schools



3.4.2 Importance of road safety education in schools

All respondents stated that it was 'very important' (n=10, 77%) or 'important' (n=3, 23%) to deliver road safety education programs/ courses in school settings. Eight made further comments on their responses (Table 3.11). The majority of comments were positive but others suggested that road safety is already covered in the curriculum, it is more important in primary than secondary school and that road safety education is the responsibility of the parents, rather than the school.

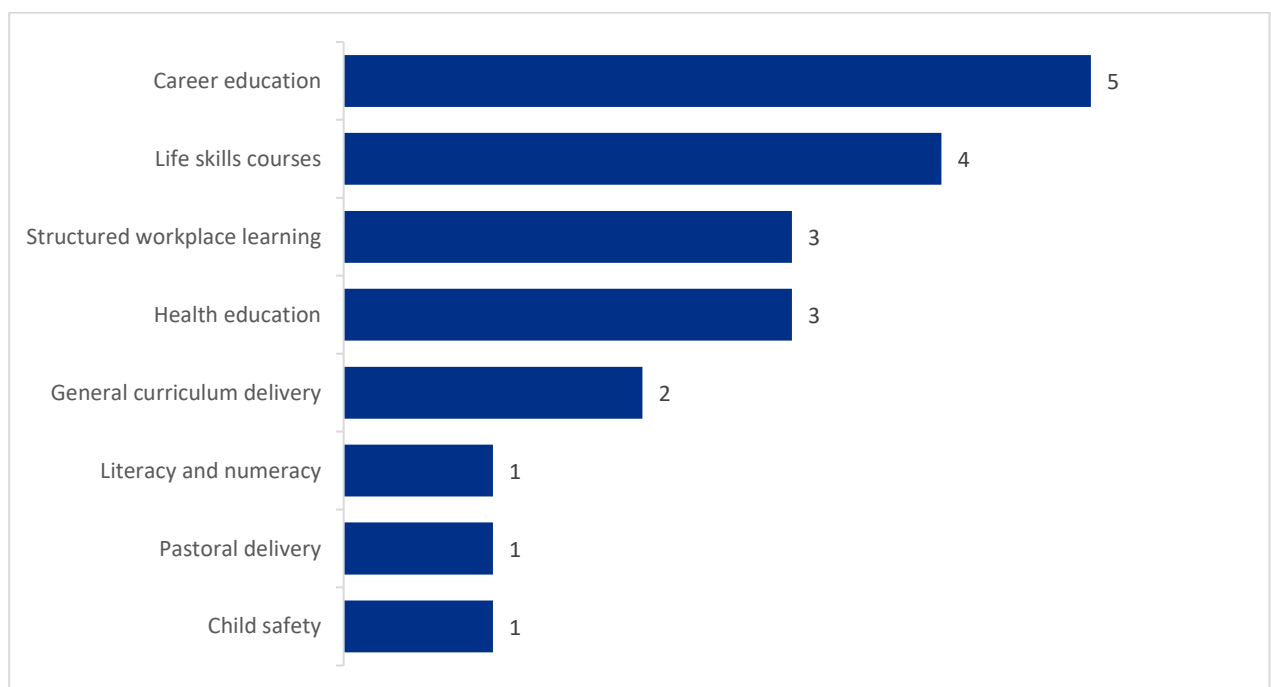
Table 3.11 The importance of delivering road safety education programs/ courses in school settings

Positive comments	Negative comments
<ul style="list-style-type: none"> • Alleviates pressure on parents, especially in communities where primary caregiver is not the parent • Critical tools to educate students on the risks of driving and consequences of poor decisions • Priority for K-12 to save lives in regional areas • Important in regional areas due to road fatalities • Students are interested and it is meaningful as about to get their licence. • School is a great way for class discussion and questions around road safety 	<ul style="list-style-type: none"> • Already covered in a variety of ways through curriculum on responsible behaviour, drugs etc • It is more important in primary school setting • Everyone thinks their area is something schools should teach instead of parents

3.4.3 Competition with road safety

Participants suggested eight different programs/ content that compete with the delivery of road safety education at their school. The most common areas were career education (n=5, 38%), life skills courses (n=4, 31%), structured workplace learning (n=3, 23%) and health education (n=3, 23%) (Figure 3.15). Totals do not add up to 13 or 100% due to multiple responses.

Figure 3.15 Programs/ content that compete with the delivery of road safety education



3.4.4 Other road safety programs

Eight of the respondents (62%) stated that their school did not offer any road safety programs, while five (38%) stated that other road safety programs were delivered. It should be noted that none of the schools delivered an in-depth road safety program that is comparable to Keys4Life. Two of the schools attended one-off road safety presentations delivered by the Royal Automobile Club of Western Australia (RAC), two schools stated that DoE road safety programs (formerly SDERA) were delivered in lower school but not Year 10-12 and one stated that road safety is already covered in the standard curriculum. Three of the five respondents (60%) were satisfied with the current road safety education offered at their school, one was not satisfied (20%) and one was unsure (20%).

3.4.5 Previous engagement with Keys4Life

All 13 respondents had heard of the Keys4Life program previously. In the 2008 evaluation, several schools did not know of the program (Office of Road Safety, 2009). Eight respondents (62%) stated that their school had delivered Keys4Life in the past, three (23%) had never delivered it (23%) and two were unsure (15%). Five of the eight schools that had delivered Keys4Life in the past were located in regional areas (63%).

3.4.6 Reasons for never implementing Keys4Life

The five respondents whose school had never delivered Keys4Life or were unsure were asked reasons for not delivering the program. The five reasons included teachers not supporting the program, having no-one to take ownership of the program, crowded curriculum, no time for Keys4Life PD and implementing different road safety content (RAC presentations) (Table 3.12).

Table 3.12 Reasons for never delivering the Keys4Life program (n=5)

Reasons for never delivering Keys4Life		N
Teacher-related	• Teachers do not support the program	1
	• No one to take ownership of program	1
Time and priority-related	• Crowded curriculum	1
	• No time for Keys4Life PD	1
	• Implement different road safety content (RAC presentations)	1

3.4.7 Reasons for stopping delivery of Keys4Life

The eight respondents who stated that their school had delivered Keys4Life in the past were asked for the reasons for stopping delivery (Table 3.13). For metropolitan schools, the most commonly stated reasons were the crowded curriculum (n=3), lack of teacher support for the program (n=2), no-one to take ownership of the program (n=2) and no time for the Keys4Life PD (n=2). For regional schools, the most common reason was that teachers who delivered the program left the school (n=4). The crowded curriculum was also an issue for some regional schools (n=2).

Only one respondent from a metropolitan school stated that the students did not respond positively to the program and the program content was not engaging/ relevant for them. One regional school reported difficulty implementing the program due to transiency of students and two schools (1 metropolitan, 1 regional) experienced difficulty with the timing of the program since most students had their Learner's Permit by the time the program was delivered (Table 3.13).

Table 3.13 Reasons for stopping delivery of the Keys4Life Program

Reasons for stopping delivery of Keys4Life		Metro (n=3)	Regional (n=5)	TOTAL (n=8)
Teacher-related	• Teachers who delivered/ co-ordinated program left the school	1	4	5
	• Teachers did not support the program	2	0	2
	• No one to take ownership of program	2	0	2
Student - related	• Students did not respond positively to the program	1	0	1
	• Program content was not engaging/ relevant for students	1	0	1
	• Difficulty delivering the program due to transiency of students	0	1	1
	• Most students had their Learner's Permit by the time the program was delivered	1	1	2
Time and priority-related	• Crowded curriculum	3	2	5
	• No time for Keys4Life PD	2	1	3
	• No money for teacher relief	0	1	1
	• Road safety not a high priority	1	0	1
	• Road safety not the school's responsibility	1	0	1

These barriers to implementing the Keys4Life program in 2021 were similar to those reported in the 2015 (n=6) and 2008 (n=8) evaluations of non-engaged schools (Metrix Consulting, 2016; Office of Road Safety, 2009). Participants in the 2015 and 2008 evaluations similarly identified the time investment required as well as full school timetables/ competing programs/ crowded curriculum as major barriers. The 2008 evaluation also identified the belief that road safety is the responsibility of parents rather than the school and lack of teacher support for the program, as barriers.

3.4.8 Suggestions for improvement of the Keys4Life program

Eleven of the 13 respondents made suggestions for improvement of the Keys4Life program. The most common suggestions were around the Keys4Life professional development (n=6), program resources (n=6) number of lessons/ program length (n=5), content of program (n=4), support from Keys4Life (n=2) and program protocols and requirements (n=1). See Table 3.14 for details.

Table 3.14 Suggestions for improvement of the Keys4Life program from non-engaged schools

<p>Keys4Life resources</p> <ul style="list-style-type: none"> • More contextualised to the regional/ remote environment • Paper-based as well as web-based as no internet access 	<p>Keys4Life content</p> <ul style="list-style-type: none"> • More contextualised to the regional/ environment • Incorporate Keys4Life into existing VET programs • More streamlined program • Less paperwork for students • Versions of Keys4Life lessons to suit students with low literacy/ numeracy
<p>Professional development/ training</p> <ul style="list-style-type: none"> • More PD opportunities/ dates for staff • Access to relief staff • Make PD suitable and accessible for remote teaching staff 	<p>Number of lessons/ program length</p> <ul style="list-style-type: none"> • Option for variable length of program delivery
<p>Program protocols and requirements</p> <ul style="list-style-type: none"> • Parents sign on as partners in the program • Less bureaucratisation of program process and procedures 	


3.4.9 Enablers for implementation of Keys4Life

Finally, 11 participants responded to the question asking what, if anything would encourage their school to implement Keys4Life.

Several respondents noted that more information about Keys4Life may encourage them to implement the program. For example, *'positive reviews'* of Keys4Life from similar schools such as those in *'remote indigenous communities'* may encourage implementation. Respondents also said that *'contact with the course leader'* and having DoE staff *'come to the school and talk through'* the program may encourage them to deliver it. Finally, one respondent mentioned that having *'queries answered in a timely manner'* would be useful.

Participants also noted issues relating to the Keys4Life PD that may encourage them to deliver the program. One mentioned that the PD sessions should be held more frequently with greater availability for teachers to get trained. One regional respondent suggested that DoE staff visit the school, deliver the PD and distribute the Keys4Life resources on site. Another suggested that more teacher relief time and *'discretionary funding'* is required to attend the PD as well as for planning the delivery of the program, in order to help schools to implement the program.

In terms of the Keys4Life Program itself, one respondent suggested that a *'shorter course'* may encourage their school to deliver the program. As previously mentioned, *'less bureaucratisation of process and procedures'* was also suggested. Finally, several respondents mentioned the need



to create more time or delete something out of the '*overflowing curriculum*' in order to encourage them to deliver Keys4Life.

All three evaluations have identified that face-to face meetings with DoE staff to promote and explain the Keys4Life program may influence uptake amongst non-engaged schools (Metrix Consulting, 2016; Office of Road Safety, 2009).

3.5 Part E: Impact of Keys4Life on student attitudes, risk perception and intentions

This section details the results of the before and after study examining the impact of the Keys4Life program on the attitudes, risk perception and intentions of pre-drivers who participated in the program through schools. The questionnaire piloted in Phase 1 of the evaluation was used for this study (Fraser et al., 2021).

3.5.1 Participants

A total of 864 school students completed the 'before' survey and 231 of these participants completed the 'after' survey (27%), zero to two months after completing Keys4Life.

Table 3.15 compares the characteristics of school students who completed the 'before' survey only (n=633), with students who completed both the 'before' and 'after' surveys (n=231). Significant differences were found for school system with a higher proportion of AISWA students completing both surveys (p<0.001). There were no significant differences between groups in terms of gender, age or region (p>0.05).

Table 3.15 Comparison of school students who completed the before survey only and both surveys

School student characteristics	Completed 'before' survey only		Completed 'before' and 'after' surveys		p-value ^a
	N=633	%	N=231	%	
Gender^b					
Male	304	49.5	107	46.3	0.409
Female	308	50.3	124	53.7	
Age (years)					
14	105	16.6	36	15.6	0.724
15+	528	83.4	195	84.4	
Region					
Metropolitan	554	87.5	199	86.1	0.594
Regional	79	12.5	32	13.9	
School system					
DoE	136	21.5	63	27.3	<0.001 *
CEWA	263	41.5	48	20.8	
AISWA	234	37.0	120	51.9	

* Significant at p<0.05

^a p-values calculated using chi-square tests

^b missing data

Scores on the outcome measures of interest (risk perception scale, attitude subscales and intended hours of supervised driving) at baseline were also compared for students who completed the 'before' survey only (n=633) and students who completed both surveys (n=231). A higher proportion of students who completed both surveys intended to complete more than 50 hours of supervised driving than those who completed the 'before' survey only (p=0.006). In addition, those who completed both surveys scored slightly lower (better) on the 'dare to speak up to an unsafe driver' subscale of the attitudes scale (p=0.009). There were no other significant

differences. This suggests that those who completed both surveys may have had some slightly safer driving attitudes and intentions at baseline.

The final sample consisted of the 231 school students who completed both the 'before' and 'after' surveys. This sample is presented in Table 3.15 and has been described in Part C of the report.

3.5.2 Gender comparisons at baseline

For the 231 students who completed both surveys, driving attitudes, risk perception and intended hours of supervised driving were compared for males and females at baseline. Females scored significantly lower (better) on the 'concern about hurting others' ($p < 0.001$) and the 'joyriding' ($p = 0.022$) subscales of the attitudes scale. There were no other significant differences between male and female students at baseline.

3.5.3 Univariate analysis: risk perception, driving attitudes and intentions before and after Keys4Life

Table 3.16 presents the mean risk perception score, 10 attitude subscale scores and intended hours of supervised driving before and after completing the Keys4Life program for 231 students. It also presents univariate analyses examining whether there was a significant change in these outcomes, after applying the Bonferroni correction for multiple outcomes, not controlling for any other factors.

Table 3.16 Risk perception, attitudes and intentions of students before and after Keys4Life (n=231)

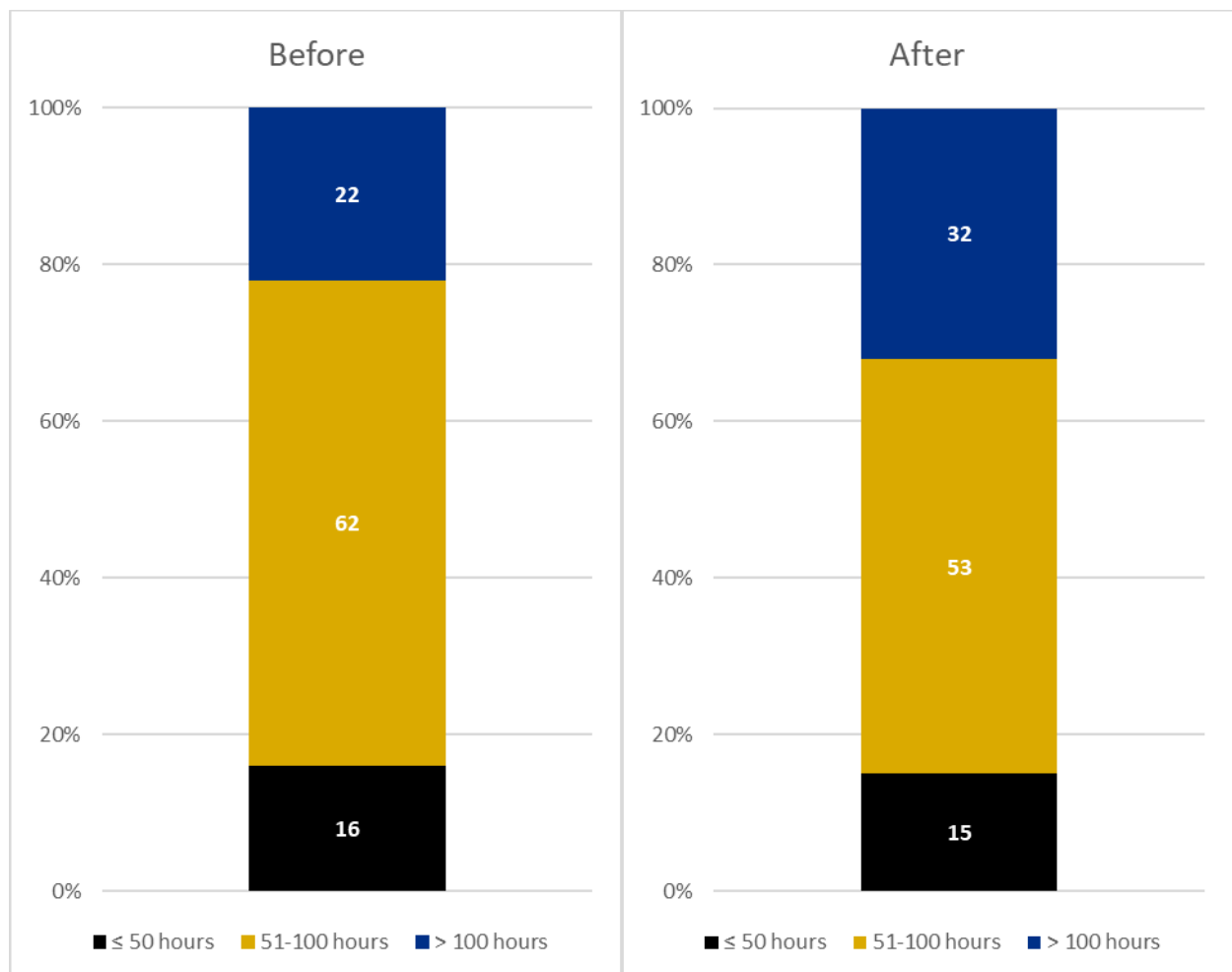
Outcome	'Before' Keys4Life		'After' Keys4Life		p-value*
	Mean	SD	Mean	SD	
Risk perceptions scale^{c d}	4.9	2.4	4.4	2.4	0.003 ^{a*}
Attitudes scale^{c e}					
Subscale 1: Riding with an unsafe driver	9.6	3.7	9.7	3.9	0.855 ^a
Subscale 2: Speeding	7.8	2.8	7.0	2.5	<0.001 ^{a*}
Subscale 3: Concern about hurting others	3.8	1.7	3.9	2.0	0.913 ^a
Subscale 4: Drinking and driving	3.3	1.5	3.3	1.4	0.670 ^a
Subscale 5: Showing off driving skills to others	9.9	2.0	10.2	2.1	0.005 ^a
Subscale 6: Traffic flow vs rule obedience	10.6	3.4	10.6	3.8	0.843 ^a
Subscale 7: Joyriding	3.8	1.5	3.7	1.5	0.981 ^a
Subscale 8: Dare to speak up to an unsafe driver	5.1	2.0	5.0	1.9	0.606 ^a
Subscale 9: Risk of crashes	3.1	1.3	3.1	1.4	0.715 ^a
Subscale 10: Traffic rule violations	4.8	2.0	5.2	2.1	<0.001 ^{a*}
Intended hours of supervised driving (n, %)					
≤ 100 hours	181	78.4	157	68.0	
> 100 hours	50	21.6	74	32.0	0.004 ^{b*}

* Significant at Bonferroni corrected p-value of $p < 0.0042$ ^a Wilcoxon paired signed ranks test ^b McNemar test ^c Lower score = better score ^d 10-item risk perception scale (Ivers et al., 2009) ^e 30-item attitudes scale (Glendon et al., 2014)

There was a small but significant improvement of half a point on the risk perception scale (on a 0-30 point scale) after Keys4Life ($p=0.003$). There was also a small but significant improvement of 0.8 points on the 'speeding' subscale of the attitudes measure (on a 4-20 point scale) ($p<0.001$). However, participants scored significantly worse on the 'traffic rule violations' subscale ($p<0.001$) by 0.4 points (on a 3-15 point scale) after Keys4Life (Table 3.16).

There was also a significant difference in the number of supervised driving hours students intended to complete before and after participating in the Keys4Life program ($p=0.004$) (Table 3.16). Figure 3.16 presents a more detailed breakdown of intended hours of supervised driving. After Keys4Life, the proportion of students who intended to complete the minimum required hours of supervised driving (50 hours) or less (15%), was very similar to before the program (16%) and the proportion intending to do 51-100 hours decreased from 62% to 53%. However, the proportion stating they intended to achieve more than 100 hours increased from 22% to 32% (Figure 3.16).

Figure 3.16 Intended hours of supervised driving among students before and after Keys4Life (n=231)



3.5.4 Multivariate analysis: risk perception, driving attitudes and intentions before and after Keys4Life

Table 3.17 presents the results of four separate GEE models examining change in risk perception scale scores, attitude subscale scores and intended hours of supervised driving after completion of the Keys4Life program, controlling for gender, age and region. GEE models are presented for the outcomes that showed significant changes in the univariate analyses,

Table 3.17 Separate Generalised Estimating Equation models for the impact of Keys4Life on risk perception, attitudes and intended hours of supervised driving (n=231)

Outcome	Factor	Coefficient ^a	95% CI		p-value
Risk perception scale	Before/ after Keys4Life: After	-0.53	-0.85	-0.20	0.001*
	Gender: Female	-0.54	-1.07	-0.01	0.050
	Age: 14	-0.10	-0.87	0.66	0.792
	Region: Regional WA	0.37	-0.49	1.23	0.396
Attitudes: 'speeding' subscale	Before/ after Keys4Life: after	-0.77	-1.12	-0.42	<0.001*
	Gender: female	-0.05	-0.66	0.56	0.875
	Age: 14	-0.09	-0.73	0.92	0.826
	Region: regional WA	0.21	-0.59	1.01	0.608
Attitudes: 'traffic rule violations' subscale	Before/ after Keys4Life (after)	0.40	0.13	0.67	0.004*
	Gender: female	0.11	-0.33	0.55	0.623
	Age: 14	-0.40	-0.93	0.13	0.139
	Region: regional WA	1.01	0.43	1.58	<0.001*
Adjusted OR^b					
Intended hours of supervised driving: > 100 hours	Before/ after Keys4Life (after)	1.71	1.20	2.44	0.003*
	Gender: female	0.76	0.47	1.22	0.248
	Age: 14	1.08	0.56	2.08	0.825
	Region: regional	1.52	0.83	2.78	0.173


* Significant at Bonferroni corrected p-value of $p < 0.013$

^a From GEE linear regression model ^b From GEE logistic regression model

The first model found that the risk perception scale score significantly reduced (improved) by 0.5 points after participation in the Keys4Life program (95% CI: -0.9 - -0.2, $p=0.001$). There were no significant differences for gender, age or region.

The second model found that the 'speeding' subscale of the attitudes scale significantly reduced (improved) by 0.8 points after participation in Keys4Life (95% CI: -1.1 - -0.4, $p<0.001$). There were no significant differences for gender, age or region.

The third model found that the 'traffic rule violations' subscale of the attitudes scale significantly increased (worsened) by 0.4 points after participation in Keys4Life (95% CI: 0.1-0.7, $p=0.004$). In



addition, those from regional schools had significantly higher (worse) scores on this subscale than participants from metropolitan schools ($p < 0.001$).

The final model found that the likelihood of a student intending to complete more than 100 hours of supervised driving increased by 1.7 times or 70% after completing Keys4Life (95% CI: 1.2-2.4, $p = 0.003$). There were no significant differences for gender, age or region (Table 3.17).

3.6 Part F: Methodology for future evaluations

Part F of this evaluation involved advising the DoE on establishing a long-term methodology for i) tracking Keys4Life students to review the impact of the program on their supervised driving and driving history and ii) analysing program effectiveness for improving on-road driving practices including use of safer vehicles.

3.6.1 Tested methodology: tracking of Keys4Life students

In order to test a method of tracking Keys4Life students, we asked school students who responded to the 'before' survey described in Part E whether they consented to being contacted in the future for further evaluation of the Keys4Life program. A total of 928 students filled in the contact information section of the 'before' survey. Seventy-three percent (n=678) of these respondents agreed to be contacted in the future (Table 3.18).

It is important to note however, that these 678 students represent only three percent of the approximately 22,500 students enrolled in Keys4Life each year. This was due to the multiple levels of consent required to reach students currently undertaking Keys4Life in schools. This includes Principal consent, parental consent and student consent, as well as teacher assistance to distribute the surveys.

We requested the full name, mobile phone number and email address of students who participated in the survey in order to contact them in the future. Thirty percent of participants provided their first name only or an invalid name and 13% did not provide a phone number (Table 3.18). Thirteen percent also did not provide a valid email address. The majority of students (67%) provided their personal school email. It is likely that a significant proportion of these students will no longer have the same contact details (particularly email address) by the time they become licensed drivers, making it difficult to contact them for further evaluation.

Due to the time taken to recruit Keys4Life students, the low overall response rate and high loss to follow-up, the researchers do not recommend recruiting and recording contact details of school students as a methodology for examining the impact of the Keys4Life program on longer-term outcomes.

3.6.2 Rejected methodology: Department of Transport data

Another method considered for examining the long-term impact of Keys4Life involved accessing and analysing de-identified Department of Transport (DoT) data. The DoT records whether a person presents a Keys4Life certificate when they receive their Learner's Permit. We therefore investigated whether it would be possible to retrospectively examine the vehicle details and infringement information of drivers aged 18-21 years, by whether they presented a Keys4Life certificate or not.

After consultation with the DoT this method was rejected for several reasons. Firstly, it is likely that the DoT staff do not have the capacity to extract this data as it is time consuming and not part of their role. This method would also only allow examination of vehicle type and infringements, not hours of supervised driving, self-reported driving behaviour or crashes.

Table 3.18 Contact details provided by school students (n=928)

	N	%
Consent to future contact		
No	250	26.9
Yes	678	73.1
First and second name provided		
No	274	29.5
Yes	654	70.5
Valid email provided		
No	122	13.1
Yes	806	86.9
Phone number provided		
No	121	13.0
Yes	807	87.0

3.6.3 Recommended methodology: recruitment of Keys4Life students as young adults

In order to examine long-term outcomes of Keys4Life after drivers have received their provisional licence, drivers could instead be recruited as young adults. This would only require the consent of the young adult themselves, rather than the multiple levels of consent required to recruit school students.

Since 76% of WA schools implement Keys4Life, a large sample of young drivers who have participated in Keys4Life could be easily be obtained through the recruitment young drivers aged 18-21 from the general population of WA. This sample would include those who completed Keys4Life through both schools and agencies. It would also include young drivers who did not participate in Keys4Life and these drivers could form a comparison group.

The young drivers could be recruited by cold calling a random sample of the WA population aged 18-21 years. Services such as the Survey Research Centre at Edith Cowan University have access to sample lists and provide this service.

3.6.3.1 Telephone interview

Following recruitment, a telephone interview could collect important self-reported information on Keys4Life participation, long term outcomes of interest, as well as variables that may confound the outcomes, so these relationships can be examined and controlled for in the analysis (Table 3.19).

Table 3.19 Self-reported information collected from telephone interview

Explanatory variable of interest	Outcomes of interest	Potential confounders
<ul style="list-style-type: none"> Keys4Life participation 	<ul style="list-style-type: none"> Number of supervised driving hours completed Vehicle details/ safety Driving behaviour Traffic infringement history Crash history 	<ul style="list-style-type: none"> Socio-demographic factors Health information Date of licensing Driving exposure information Driver training history Personality-related factors (e.g. risk aversion, risk propensity, risk-related motives, risk perception, sensation seeking)

3.6.3.2 Linkage to objective vehicle, infringement and crash data

While the telephone interview would provide useful information, there would be inherent biases in the data due to its self-reported nature. It would therefore be useful to also obtain objective linked data through Data Linkage WA. This includes:

- Crashes from Main Roads WA - Integrated Road Information System (IRIS)
- Hospitalisation due to a crash from the Hospital Morbidity Data Collection
- Driver licensing information, vehicle registration information and infringements from Department of Transport – Licensing data
- Infringements from WA Police


An advantage of contacting potential participants as adults is they will be able to provide their current details (name, date of birth, gender, current address and driver's licence number) as well as consent for researchers to access their recorded licensing, vehicle, infringement and crash information. If students were recruited as pre-drivers, they would need to be contacted again once they were licensed in order to obtain this up-to-date information required for the data linkage process and also their consent to access these records.

3.6.3.3 Limitations

It should be noted that Data Linkage WA only have DoT data up to June 2019. If no further DoT data is provided, the proposed study would have to rely on self-reported licensing and vehicle information and on infringement data from Police. The waiting time for data from Data Linkage WA is also currently around two years. In addition, crashes where the young driver was killed would not be captured using this methodology.

3.6.4 Summary

In summary, we examined possible methodologies for examining the long-term effectiveness of the Keys4Life program on outcomes including the number of supervised driving hours completed,



vehicle details/ safety, driving behaviour, traffic infringements and crash history. First, we tested a methodology of obtaining contact details from students at the time of participation in Keys4Life, in order to track them into the future. This method captured only a small proportion of the population of Keys4Life students and revealed potential issues with following-up these students due to the contact details provided. Therefore, this methodology is not recommended. We also explored the possibility of using de-identified DoT data to examine the association between Keys4Life participation and vehicle details/ safety and traffic infringements. However, this method did not prove to be feasible. The methodology we recommended was to conduct a retrospective study which recruits participants as young adult drivers and examines the impact of Keys4Life participation on outcomes including number of supervised driving hours, vehicle safety details, driving behaviour, traffic infringements and crashes, using telephone interviews and linked data.

4 DISCUSSION

Phase 2 of the 2021 Keys4Life program evaluation examined the perspectives of school teachers, school students and agency teachers engaged with the program as well as the perspectives of non-engaged schools. It also evaluated the impact of Keys4Life on risk perception, driving attitudes and intended hours of supervised driving for pre-drivers completing the program within schools. Finally, this report investigated possible methodologies for examining the long-term effectiveness of the Keys4Life Program.

4.1 Perspectives of teachers and students engaged with Keys4Life

4.1.1 Satisfaction with Keys4Life and recommendation of the program

Overall, this evaluation showed a very positive response to the Keys4Life Program from school teachers, agency teachers and school students engaged with the program. Over 90% of school teachers and over 80% of agency teachers were '*satisfied*' or '*strongly satisfied*' with the majority (95%) of the elements of the Keys4Life program. In addition, 94% of students were '*satisfied*' or '*strongly satisfied*' with the Keys4Life lessons. All school teachers surveyed, 92% of agency teachers and 63% of school students were '*definitely likely*' or '*very likely*' to recommend Keys4Life to others.

School teachers also had high levels of satisfaction in previous evaluations. However, a larger proportion of teachers were '*strongly satisfied*' with the items compared to 2015. In particular, there were large improvements in satisfaction with the Keys4Life website. This suggests that refinements and improvements made to Keys4Life in the past five years, especially the website, have increased satisfaction among teachers. In support of this, the proportion of school teachers likely to recommend the program increased from 93% in 2015 to 100% in 2021 (Metrix Consulting, 2016).

This is the first Keys4Life program evaluation to include the perspectives of agency teachers. Encouragingly, their satisfaction with the program was high but there is also potential for improvement. This will be discussed below.

A slightly lower proportion of students reported that they were satisfied with the program ('*satisfied*' or '*strongly satisfied*') in 2021 (94%), compared to 2015 (98%). A slightly lower proportion were also '*very likely*' or '*definitely likely*' to recommend the program in 2021 (63%), compared to 2015 (67%) (Metrix Consulting, 2016). It is important to note that the 2015 survey was filled in by students at the Keys4Life Parent/ Student workshop, whereas the 2021 evaluation was filled in online after completion of the program. The small difference in reported satisfaction levels may be because some students attending the Parent/ Student Workshops had not yet completed the lessons, their parents and teachers were present when filling out the survey in 2015 and students may have included their satisfaction with the Parent/ Student Workshop in their response.

4.1.2 Program benefits


School teachers, agency teachers and school students agreed that the Keys4Life program had a wide range of benefits. Overall, 89-100% of school teachers, 85-100% of agency teachers and 85-96% of school students 'agreed' or 'strongly agreed' with each listed benefit.

The findings relating to school teachers were similar to those from the 2015 and 2008 evaluations. However, there was an increase in the proportion of teachers who 'strongly agreed' with the 10 benefits (average increase of 9%), compared to 2015 (Metrix Consulting, 2016). This provides further evidence that improvements made to the Keys4Life program since the last evaluation have led to additional perceived benefits from the point of view of teachers. Both school and agency teachers elaborated on the benefits of Keys4Life for disadvantaged students and how the program provides access to road safety education for these groups. It is encouraging that agency teachers also raised several secondary benefits of the Keys4Life program for students including improvements in problem solving ability, literacy, confidence and social skills. It would therefore be beneficial for the DoE to promote these secondary outcomes when marketing the program to agencies.

For students, a lower proportion agreed with the listed benefits in the current evaluation (85-96%), compared to the 2015 evaluation (96-100%). Similarly, a slightly lower proportion of students intended to achieve more than 50 hours of supervised driving in 2021 (85%) compared to 2015 (89%) (Metrix Consulting, 2016). Again, this is likely due to the 2015 surveys being completed at the Student/ Parent Workshop, where the topics addressed in the benefit statements had just been delivered and emphasised. Specifically, 15% of students disagreed that they understood the licensing system and 13% disagreed that a safer car will protect them and their passengers in the event of a crash in the 2021 evaluation. In the Parent/ Student workshop surveys from Phase 1 of this evaluation and from 2015, a much smaller proportion of students (0-2%) disagreed with similar statements (Fraser et al., 2021; Metrix Consulting, 2016). Some students commented that significant information was emphasised more effectively in the Parent/ Student workshop than in the lessons. This suggests that the topics of the licensing system and safer vehicles within the Keys4Life lessons may need to be modified/ extended upon or additional teacher training provided on these topics, in order to reach students as effectively as when delivered at the Parent/ Student Workshops.

4.1.3 Keys4Life program barriers

Similar barriers to participation in the Keys4Life program were raised by schools and agencies. These included the time investment required to plan/ implement the program and barriers for disadvantaged students including those from CALD backgrounds, in remote communities, transient students and those with literacy/ learning/ language support needs. Barriers were also identified surrounding the Keys4Life resources being very text heavy and unsuitable for some disadvantaged students. It should be noted that several agency teachers and some school teachers stated they personally adapted the Keys4Life program structure, length, content and/ or materials to suit their specific student groups (e.g. literacy or learning support needs). While few stated this was a barrier to implementing the program, it is important to acknowledge the time teachers spend doing this. It is also impossible to know whether the adapted versions of the program being delivered by these teachers still abide by best practice road safety education and meet all the aims of Keys4Life. It would therefore be beneficial for the DoE to create alternative



versions of the lessons and resources for teachers who work with disadvantaged students to choose from. This would ensure that all content being delivered is approved and aligns with the principles of Keys4Life.

An online teacher Keys4Life portal was introduced in 2020 where teachers upload the Learner's Permit Theory Test results and certificates are posted to them. Nineteen percent of school teachers and 23% of agency teachers were not satisfied with the portal. Reasons provided were that the certificates took too long to receive, the portal was difficult to use and difficult to upload the test result file. While the Keys4Life portal is undoubtedly a more efficient and rigorous system for issuing certificates, the comments from teachers suggest that it needs some refinement to make it more user-friendly.

One difference between school and agency teachers was their perception of the suitability of the length of the Keys4Life program. While some school teachers commented that the Keys4Life program was too short, agency teachers more commonly commented that the program and lessons were too long. This highlights the unique differences between delivery of Keys4Life in schools and agencies and emphasises the need for flexible approaches to the delivery of the program.

4.1.4 Delivery of Keys4Life in schools and agencies

Keys4Life was originally designed as a 10-lesson program and it is recommended that teachers spend a minimum of 10 hours delivering it. It is encouraging that nearly all school teachers delivered Keys4Life in 10 or more lessons (92%), taking a total of 10 or more hours (97%). Since agency teachers deliver Keys4Life to very diverse student groups, their delivery of Keys4Life was more varied than school teachers. While it is positive that the delivery of the program is able to be adapted to the needs of disadvantaged students, nearly a quarter of agency teachers delivered the program in less than 10 hours. Therefore, the DoE may need to provide agency teachers with information on the importance of spending 10 hours on the lessons, in order to cover all of the road safety content.

4.1.5 Perspectives on improvements to the Keys4Life program

For school and agency teachers, the top three suggested improvements to the program were '*Keys4Life refresher courses for trained teachers*', '*regular updates for Keys4Life materials*' and a '*Keys4Life app*'. The DoE is currently developing an online refresher course—which will be compulsory for teachers delivering Keys4Life to complete—for implementation in late 2021/early 2022.

Interestingly, more than half of agency teachers supported a Keys4Life biennial forum to share and acknowledge new research and different implementation models, while only one-quarter of school teachers agreed this would improve the program. This likely reflects the diversity of agencies delivering Keys4Life and the agency students involved. Since agencies face unique challenges in delivering Keys4Life, it would be valuable for agency teachers to have the opportunity to regularly connect to share ideas and success stories with other agencies who may face similar challenges.

The majority of students reported that they would have liked to receive more information on the licensing system (80%) and safer cars (70%).

4.1.6 Strengths and limitations of the evaluation of teacher and student perspectives

A strength of the 2021 evaluation of the Keys4Life program was that findings could be compared to previous 2008 and 2015 evaluations in terms of teacher and student perspectives. It also collected the perspectives of a larger number of school students than previous evaluations and administered the survey at the completion of the program, rather than at the Parent/ Student workshop. Another strength was the inclusion of agency teachers in this evaluation.

There were also several limitations to the evaluation. Firstly, there was a low response rate for the online surveys. This was expected due to the multiple levels of consent required to obtain school-based participants. Another limitation is that we were unable to include any agency students in the evaluation as we did not get any responses to the online survey invitation. Reasons for this were that many of the agency students had literacy/ learning/ language support needs, were from CALD backgrounds, lived in remote communities or were transient and were unable to complete an online survey. However, agency teachers provided rich descriptive information on the benefits and barriers of the program for their students so this information was able to be addressed in the agency teacher part of the evaluation. In order to obtain information on agency student perspectives in the future, it may be necessary to implement multiple methodologies. This would involve contacting each agency teacher to determine the best methodology for their specific student group (e.g. face to face interviews, telephone interviews, simplified paper-based survey administered by the teacher). We were also unable to include Department of Justice staff and students due to their ethics and approval requirements.

4.1.7 Opportunities and recommendations for improvement of Keys4Life

Several opportunities to improve the Keys4Life program have been identified based on the comments made by school teachers, agency teachers and school students.

Keys4Life program content and resources

- **Develop Keys4Life lessons and resources that are more culturally inclusive and appropriate for disadvantaged students and those with literacy/ learning/ language support needs**
The DoE is in the process of developing a more culturally inclusive student workbook and Teacher Resource. It is recommended that the DoE extend this to the development of videos and other visual resources.
- **Provide teachers with Keys4Life lessons in PowerPoint format and pre-made Keys4Life activities/ resources**
The time investment required to plan and implement the program was a common barrier for school and agency teachers. Providing a selection of PowerPoint lessons and activities could increase teacher satisfaction and engagement with Keys4Life.
- **Review the content and activities surrounding the 'licensing system' and 'safer vehicles' topics in the Keys4Life lessons**
A significant proportion of students disagreed that they understood the licensing system (15%) and that a safer car will protect them and their passengers in the event of a crash (13%) following completion of the Keys4Life lessons. The content surrounding this topic may need to be modified/ extended upon or additional teacher training provided.
- **Regularly update Keys4Life materials and provide school and agency teachers with links to current crash statistics**

Nearly 70% of agency teachers and close to 60% of school teachers suggested regular updates to Keys4Life materials would improve the program, particularly updated videos.

- **Development of more online/ electronic Keys4Life materials**

Over half of school and agency teachers suggested that a Keys4Life app would improve the program. It is recommended that the DoE develop more electronic/ online content including Keys4Life online lessons, a Keys4Life app, online activities and games and consider online delivery of the Learner's Permit test as an option for schools and agencies.

- **Provide a clear explanation of the purpose of Keys4Life for students in the lesson plan for the first lesson**

The most common source of dissatisfaction and suggestion for improvement from students was the lack of focus on learning the road rules required to pass the Learner's Permit test. Clearly explaining the road safety focus of Keys4Life in the first lesson may increase student satisfaction with the program.

Delivery of the Keys4Life program

- **Promote the flexibility of the Keys4Life program and options for variable length of delivery to school and agency teachers**

Several school teachers commented that the program is too short, while agency teachers stated it is too long. It is recommended that the DoE promote different options for flexible delivery of at least 10 hours of Keys4Life lessons over more or less than 10 sessions, with examples that demonstrate how all the compulsory content can be covered within these different delivery schedules.

- **Provide agency teachers with information on the importance of spending a minimum of 10 hours delivering the Keys4Life program**

Nearly one-quarter of agency teachers delivered the program in less than 10 hours. Tips on how to achieve the 10 hours within different flexible delivery modes could be provided at the Keys4Life PD and via email/ newsletter.

Keys4Life procedures and processes

- **Improve and fine tune the new Keys4Life portal**

The new portal could be made more user friendly and easier to upload the required files.

- **Develop a system that ensures the prompt issue of Keys4Life certificates**

The time taken to receive Keys4Life certificates for students who passed the Learner's Permit test was frequently cited as a barrier. Quicker issue of Keys4Life certificates would improve teacher and student satisfaction with the program.

Connections and follow-on programs

- **Link Keys4Life with learn to drive organisations to assist disadvantaged students in obtaining their provisional licence**

Explore the possibility of establishing a direct link to follow-on learn to drive programs for school and agency students in low socioeconomic circumstances. These programs could assist disadvantaged students with subsidised driving lessons and supervised driving in order for these students to obtain their provisional licence.



- **Connect agency teachers through Keys4Life forums**

Over half of agency teachers expressed that a biennial Keys4Life forum would improve the program. The DoE could consider running specific forums for agency teachers focusing on the unique challenges they face. This could be offered both in person and online modes so that regional teachers could participate.

4.2 Perspectives of non-engaged schools

This evaluation sought the perspectives of principals/ school leaders at schools that were not currently implementing the Keys4Life program.

4.2.1 Awareness of Keys4Life

Awareness of the Keys4Life program was excellent with all respondents having heard of the program. This differed from the 2008 evaluation where several non-engaged schools had not heard of the program. This suggests that lack of awareness of the existence of Keys4Life does not present a major barrier to engaging schools in the program.

4.2.2 Barriers to implementation

Sixty percent of the non-engaged schools surveyed had delivered Keys4Life in the past. There were some differences in reasons for disengaging between regional and metropolitan schools. For regional schools, the most common reason for discontinuing Keys4Life was that the teacher who delivered or co-ordinated Keys4Life left the school. This reflects the higher teacher turnover in regional areas and presents a barrier to the continuous implementation of Keys4Life in regional schools. Reasons for discontinuation in metropolitan schools were more varied but included lack of support from teachers and having no-one to take ownership of the program. The crowded curriculum and lack of time to complete the Keys4Life Teacher PD also presented barriers for both regional and metropolitan schools. These barriers were similar for schools that had never implemented Keys4Life.

The barriers to implementing the Keys4Life program in 2021 were similar to those reported in the 2015 and 2008 evaluations of non-engaged schools (Metrix Consulting, 2016; Office of Road Safety, 2009). This suggests that common barriers such as the crowded curriculum may be difficult to overcome. However, all 2021 respondents stated that road safety education in schools was important or very important and 40% were not satisfied or were unsure if they were satisfied with the road safety education currently delivered at their school. This suggests that a significant proportion of non-engaged schools could be encouraged to implement Keys4Life.

4.2.3 Opportunities to reach non-engaged schools

Considering the barriers raised and suggestions for improvements to the Keys4Life program made by the respondents, several opportunities to reach non-engaged schools have been identified. The Phase 1 report found that regional schools are over-represented among non-engaged schools. In 2020, 35% of regional schools with capacity did not implement Keys4Life, compared to 17% of metropolitan schools (Fraser et al., 2021). In addition, schools offering alternative education, international schools, remote community schools and agricultural schools are over-represented among non-engaged schools. Since schools are generally aware of the Keys4Life program or have implemented it before, more targeted promotion of the Keys4Life program that addresses each school's unique circumstances and specific barriers to implementation, is recommended.

Opportunities to reach all non-engaged schools

- **Provide more Keys4Life Teacher PD opportunities/ dates delivered both in-person and online and promote these to non-engaged schools**

The opportunity to attend the Teacher PD online could assist in overcoming the barrier of high teacher turnover in regional areas by making it accessible and convenient. It could also overcome time and cost restraints associated with travelling to the PD.

- **Offer face-to-face meetings with a Keys4Life representative for non-engaged schools, to promote and explain the program**

This has been suggested by respondents from non-engaged schools in all three Keys4Life evaluations.

- **Refine Keys4Life processes and procedures to ensure they are simple and clear for teachers and promote these to non-engaged schools.**

It would be useful to promote any recent improvements to Keys4Life processes and procedures that make the required tasks simpler for teachers, for example the new Keys4Life portal for uploading test results. This may encourage schools that have disengaged from the program, to re-engage.

Opportunities to reach regional and other hard to reach non-engaged schools

- **Provide targeted positive testimonials about the Keys4Life program to non-engaged schools from comparable schools that successfully implement the program**

This would involve collecting testimonials from staff and students at the types of schools that have been harder to engage (e.g. regional/ remote schools, those offering alternative education, international schools, remote community schools and agricultural schools) and promoting them to non-engaged schools that are similar in terms of remoteness, size or student demographics. It could also be effective to have a 'champion' from these engaged schools who would be willing to be available to answer questions from non-engaged schools.

- **Include content in the Keys4Life lessons and resources that is more contextualised to the regional/ remote environment and promote this content specifically to regional schools.**

Additional content could be created to address the specific road safety issues in regional and remote areas of WA.

- **Promote the new Keys4Life resources that are currently being developed by the DoE that are more culturally inclusive and appropriate for disadvantaged students and those with literacy/ learning/ language support needs, to non-engaged schools.**

The DoE is in the process of developing a new student workbook and Teacher Resource that may be appropriate for use in many of the non-engaged schools.

- **Promote the flexibility of the Keys4Life program and options for variable length of delivery**

Delivering the content over more or less than 10 sessions (as is frequently done in agencies) may be more appropriate for non-engaged schools with transient students or those with literacy/ learning/ language support needs.

4.3 Impact of Keys4Life on student attitudes, risk perception and intentions

Part E examined the impact of the Keys4Life program on the attitudes, risk perception and intended hours of supervised driving of pre-drivers, using a before and after study.

4.3.1 Overall findings

The main findings of the before after survey were that there were significant albeit small improvements in risk perception, attitudes towards speeding and intended hours of supervised driving among school students, after participation in the Keys4Life program. However, attitudes surrounding traffic rule violations significantly deteriorated, by a small amount. There were no other significant changes observed.

The mixed results found in this study reflect those of previous evaluations of pre-driver programs. These evaluations have reported small positive effects on some attitudes and beliefs (Cuenen et al., 2016; Cutello, Hellier, et al., 2020; Poulter & McKenna, 2010), no impact on other outcomes (Bates et al., 2020; Glendon et al., 2014; Markl, 2016; Poulter & McKenna, 2010), as well as some unintended negative consequences (Bates et al., 2020; Glendon et al., 2014; Poulter & McKenna, 2010). Overall, this evaluation of the Keys4Life program found more positive impacts and less unintended negative consequences than many of the previous studies. For example, the evaluation of the 12-hour 'Road Ready Program' in the ACT reported negative changes in four out of five outcomes immediately after and/ or 9-12 months post-program (Bates et al., 2020). The contrast in findings may be due to differences in content between the two programs but it should also be noted that the 'Road Ready Program' evaluation examined different outcome measures including sensation seeking, optimism bias, differential association and illusory invulnerability (Bates et al., 2020). It is possible that the use of different outcome measures also contributed to the contrasting results.

Other than the 'Road Ready program' (Bates et al., 2020), Keys4Life is the only evaluated pre-driver program identified which is usually conducted over several sessions lasting several weeks. The other programs all consisted of a single short session or one-day course delivering considerably less content and activities than Keys4Life (Cuenen et al., 2016; Cutello, Hellier, et al., 2020; Glendon et al., 2014; Markl, 2016; Poulter & McKenna, 2010). Previous research has indicated that one-off delivery of road safety education is less likely to be effective than repeated delivery of the information over time (Elkington, 2005). This may provide one explanation for the small significant improvements observed in the Keys4Life evaluation.

Several pre-driver programs have also included fear-appeal methods or mortality-salient messages, such as videos of crashes and testimonials of injured crash survivors, police and emergency services (Cuenen et al., 2016; Cutello, Hellier, et al., 2020; Glendon et al., 2014; Poulter & McKenna, 2010). While some evidence suggests these methods can be effective if they produce the right levels of cognitive and emotional arousal (Cutello, Gummerum, Hanoch, & Hellier, 2020; Tannenbaum et al., 2015), research also suggests that they can activate defence mechanisms in young people including disengaging or rejecting the message altogether, resulting in a subsequent increase in risky attitudes and behaviours (Cutello, Gummerum, et al., 2020; Lewis, Watson, & Tay, 2007; Ruiters, Kessels, Peters, & Kok, 2014). Keys4Life is based on best practice road safety education and does not include these fear-appeal methods. It is possible that this may have contributed to the relatively positive impact of Keys4Life, compared to other programs.

The Keys4Life evaluation only included one follow-up survey, completed soon after finishing the the Keys4Life program (0-2 months), whereas several previous evaluations examined outcomes over a longer period of time (3-12 months) (Bates et al., 2020; Cutello, Hellier, et al., 2020; Poulter & McKenna, 2010). It is therefore unknown whether the small positive changes in outcomes observed after the Keys4Life program are maintained over longer periods of time and this is an area for further research.

Interestingly, this evaluation showed minimal differences between males and females in terms of the outcome measures at baseline or changes in outcomes after participation in Keys4Life. Other studies have reported that young males have riskier perceptions and driving attitudes than females (Bates et al., 2020; Cuenen et al., 2016; Glendon et al., 2014) but have found mixed results on whether pre-driver education is more effective for males or females (Cuenen et al., 2016; Cutello, Hellier, et al., 2020). Since participation in the Keys4Life evaluation was voluntary, it is likely that the more safety conscious students took part and this may have minimised differences in outcome measures between males and females.

4.3.2 Risk perception

This study found a small but significant improvement in risk perception after participation in Keys4Life. This is a measure of how risky a person perceives a set of driving behaviours to be such as speeding, using a mobile phone and drink driving (Ivers et al., 2009). High scores on the risk perception scale (poorer perceptions of safety) have been associated with unsafe driving behaviour and increased crash risk (Hatfield & Fernandes, 2009; Ivers et al., 2009). The evaluation of a one-day pre-driver program in Queensland found no effect on the same risk perception scale six-weeks after the program (Glendon et al., 2014). However, participants in the 'Road Ready program' in the ACT, which is commonly delivered over 12 weeks, perceived driving as riskier after the program, compared to before (Bates et al., 2020). It is possible that Keys4Life and Road Ready demonstrated a positive impact on risk perception because these programs are longer in duration, thus having a greater impact on perceptions. However, it would be useful to examine whether the small impact on risk perception observed within 0-2 months of completing Keys4Life is maintained over a longer period.

4.3.3 Attitudes

4.3.3.1 Attitudes towards speeding

There was a small but significant improvement in student attitudes towards speeding after the Keys4Life program. The speeding subscale examined participants' acceptance of speeding under different driving circumstances. This is an important finding since 30% of fatal crashes in WA in 2020 involved speeding (Road Safety Commission, 2021). An evaluation of the half-day 'Safe Drive Stay Alive' program in the UK also reported a significant improvement in attitudes towards speeding immediately after the program, using a different measure (Poulter & McKenna, 2010). In contrast, the program in Queensland used the same attitude scale and reported significantly riskier attitudes towards speeding immediately after and 6-weeks post program (Glendon et al., 2014). While the program in Queensland addressed overall attitudes towards unsafe driving during the three-hour session (Glendon et al., 2014), the UK 'Safe Drive Stay Alive' program placed a large focus on speeding (Poulter & McKenna, 2010) and Keys4Life includes lessons specifically

focused on speeding (Department of Education Western Australia, 2020). This focus on speeding may provide an explanation for the differences in findings.

4.3.3.2 Attitudes towards traffic rule violations

Attitudes towards traffic rule violations was the only outcome that significantly deteriorated after Keys4Life in this evaluation, by a small amount. This sub-scale addresses attitudes towards following general traffic rules regardless of driving conditions. Similarly, the evaluation of the UK 'Safe Drove Stay Alive' program reported a significant decrease in the intention to drive within the law and to keep within the advice of the Highway Code after the program (Poulter & McKenna, 2010). However, the evaluation of the Queensland-based program showed no significant change in the traffic rule violations subscale after the program (Glendon et al., 2014). There is no obvious explanation for the slight deterioration in attitudes towards general traffic rule violations in this evaluation. However, it could be useful to examine how the Keys4Life lessons address attitudes towards general traffic rule violations, in addition to the more obvious violations like speeding and drink driving which are covered in depth in the lessons (Department of Education Western Australia, 2020).

4.3.3.3 Other attitudes

There were no significant changes in the other eight attitude subscales after participation in Keys4Life. One explanation for the minimal impact on attitudes may again be the voluntary nature of participation in the evaluation. It is likely that those with safer driving attitudes before Keys4Life agreed to participate. This may have led to a 'ceiling effect', meaning the scope for improvement in outcomes was limited. Therefore, this evaluation may have underestimated the true effectiveness of Keys4Life. Alternative explanations include that the specific attitudes examined in the scale may not have been specifically addressed in the Keys4Life program curriculum or other external factors play a large role in the development of these other attitudes.

4.3.4 Intended hours of supervised driving

This study found that students were significantly more likely to intend to complete more than 100 hours of supervised driving after Keys4Life, compared to before. Interestingly, the results suggest that participation in Keys4Life had little impact on those who intended to complete only the minimum required hours of supervised driving (50 hours) before the program. However, many who intended on completing some extra hours (51-100 hours) before the program, increased these intended hours to more than 100 after participation in Keys4Life. This is a positive finding since WA has the lowest required hours of supervised driving in Australia, besides the Northern Territory, with the other states ranging from 80-120 hours. In addition, research from Sweden has shown that learner drivers who completed approximately 120 hours of supervised driving had significantly less crashes once licensed, than those who completed approximately 50 hours (Gregersen et al., 2000; Gregersen, Nyberg, & Berg, 2003).

It is likely that students who intend to complete only the 50 required hours of supervised driving are influenced by a number of broader factors including socioeconomic disadvantage, lack of availability of appropriate supervisors or a vehicle to practise in (Clapham et al., 2017; Scott-Parker, Bates, Watson, King, & Hyde, 2011). These factors are impossible for the Keys4Life program to overcome in terms of information or activities provided on the benefits of supervised driving within the lessons. As previously recommended, linking Keys4Life with learn to drive organisations

to assist disadvantaged students to achieve more supervised driving hours may be a method of reaching those students who struggle to complete even the minimum required hours of supervised driving. No other study identified examined the impact of pre-driver programs on intended hours of supervised driving and it would be beneficial to examine the actual hours of supervised driving completed by Keys4Life students in future evaluations.

4.3.5 Strengths and limitations of the before and after study

This before and after study of school students used previously validated instruments and represents the first time that the impact of Keys4Life on attitudes, risk perception and intended hours of supervised driving has been examined. It provides initial evidence that Keys4Life has significant albeit small impacts on risk perception, attitudes to speeding and intended hours of supervised driving. However, it is not possible to make definitive conclusions from the results, given there was not a comparison group who did not participate in Keys4Life. This study also only examined the outcomes 0-2 months after completion of the program, meaning we were unable to determine whether the program had any lasting effects on the outcomes of interest. In addition, while online surveys represent an economical method for surveying students that place minimal burden on schools and teachers, the response rate was low and loss to follow-up high, meaning the sample may not be representative of the population of Keys4Life students in WA. Finally, the previously developed and validated questionnaires utilised in the study used quite sophisticated language, meaning they may not be appropriate for some students including those from CALD backgrounds, in remote communities and those with literacy/ learning/ language support needs.

4.3.6 Opportunities and recommendations

In light of the findings and limitations of the before and after study, recommendations for further research examining the impact of Keys4Life on risk perception, attitudes, intended hours of supervised driving and other short-term outcomes include:

- ***Investigate the feasibility of including a before and after survey examining short-term outcomes permanently within the Keys4Life lesson plans***
This would increase the response rate, provide a large, representative sample of students and allow the examination of the impact of Keys4Life on short-term outcomes over time.
- ***Conduct further evaluations of short-term outcomes of Keys4Life by recruiting a representative sample of Keys4Life schools to form an intervention group and non-Keys4Life schools to form a comparison group. Work closely with teachers to administer surveys to students before and at multiple time-points after completion of Keys4Life***
This methodology would reach all appropriate students within a school, improve response rates and loss-to-follow up and ensure that students all complete the surveys at the same time. A comparison group would allow more definitive conclusions on the impact of Keys4Life on outcomes of interest. This method however would be more time-consuming and costly than the online surveys.
- ***Develop and validate a version of the before and after evaluation that is appropriate for disadvantaged students including those from CALD backgrounds, in remote communities and those with literacy/ learning/ language support needs***
This would allow the inclusion of disadvantaged students in future evaluations of the impact of Keys4Life on short-term outcomes.

5 CONCLUSION AND RECOMMENDATIONS

Phase 2 of this evaluation confirmed the findings of Phase 1 as well as the previous evaluations—that Keys4Life is performing well in terms of participant satisfaction. In the current evaluation, over 90% of school teachers and over 80% of agency teachers were satisfied or strongly satisfied with the majority of the elements of the Keys4Life program. In addition, 94% of school students were satisfied or strongly satisfied with the Keys4Life lessons.

This was the first evaluation to examine the perspectives of agency teachers. Feedback from agency teachers about the Keys4Life program was predominantly positive, however, several agency teachers stated they had to adapt the Keys4Life program structure, length, content and/or materials to suit their specific student groups.

This evaluation also revealed that all non-engaged schools surveyed were aware of the Keys4Life program or had implemented it before. Therefore, more targeted promotion of the program that addresses each non-engaged school's unique circumstances and specific barriers to implementation, is recommended.


This was also the first evaluation to examine the impact of Keys4Life on short-term outcomes. Results found significant albeit small improvements in risk perception, attitudes towards speeding and intended hours of supervised driving after participation in the Keys4Life program. However, attitudes surrounding traffic rule violations significantly deteriorated, by a small amount.

5.1 Opportunities and recommendations

The following opportunities and recommendations have been compiled from the six parts of Phase 2 of the evaluation.

Opportunities and recommendations for improvements to Keys4Life

24. Develop Keys4Life lessons and resources that are more culturally inclusive and appropriate for disadvantaged students and those with literacy/ learning/ language support needs
25. Provide teachers with Keys4Life lessons in PowerPoint format and pre-made Keys4Life activities/ resources
26. Review the content and activities surrounding the '*licensing system*' and '*safer vehicles*' topics in the Keys4Life lessons
27. Regularly update Keys4Life materials and provide school and agency teachers with links to current crash statistics
28. Development of more online/ electronic Keys4Life materials
29. Provide a clear explanation of the purpose of Keys4Life for students in the lesson plan for the first lesson
30. Promote the flexibility of the Keys4Life program and options for variable length of delivery to school and agency teachers

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31. Provide agency teachers with information on the importance of spending a minimum of 10 hours delivering the Keys4Life program
 32. Improve and fine tune the new Keys4Life portal
 33. Develop a system that ensures the prompt issue of Keys4Life certificates
 34. Link Keys4Life with learn to drive organisations to assist disadvantaged students in obtaining their provisional licence
 35. Connect agency teachers through Keys4Life forums

Opportunities to reach non-engaged schools

36. Provide more Keys4Life Teacher PD opportunities/ dates delivered both in-person and online and promote these to non-engaged schools
37. Offer face-to-face meetings for non-engaged schools with a Keys4Life representative to promote and explain the program
38. Refine Keys4Life processes and procedures to ensure they are simple and clear for teachers and promote these to non-engaged schools.
39. Provide targeted positive testimonials about the Keys4Life program to non-engaged schools from comparable schools that successfully implement the program
40. Include content in the Keys4Life lessons and resources that is more contextualised to the regional/ remote environment and promote this content specifically to regional schools.
41. Promote the new Keys4Life resources that are currently being developed by the DoE that are more culturally inclusive and appropriate for disadvantaged students and those with literacy/ learning/ language support needs, to non-engaged schools.
42. Promote the flexibility of the Keys4Life program and options for variable length of delivery to non-engaged schools

Recommendations for future research: short-term outcomes

43. Investigate the feasibility of including a before and after survey examining short-term outcomes permanently within the Keys4Life lesson plans
44. Conduct further evaluations of short-term outcomes of Keys4Life by recruiting a representative sample of Keys4Life schools to form an intervention group and non-Keys4Life schools to form a comparison group. Work closely with teachers to administer surveys to students before and at multiple time-points after completion of Keys4Life
45. Develop and validate a version of the before and after evaluation that is appropriate for disadvantaged students including those from CALD backgrounds, in remote communities and those with literacy/ learning/ language support needs

Recommendations for future research: long-term outcomes

46. Conduct a retrospective study which recruits participants as young adult drivers and examines the impact of Keys4Life participation on longer-term outcomes including number of supervised driving hours, vehicle safety details, driving behaviour, traffic infringements and crashes, using telephone interviews and linked data.

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Appendix 1: School teacher survey



2020/21 Keys4Life School Teacher Survey: Online

SECTION 1: PROGRAM AWARENESS AND ENGAGEMENT

1. What is the name of the school you where you currently teach?

2. What is your role at your current school? *(please select all that apply)*

- Senior executive (i.e. principal, assistant principal)
- Year co-ordinator
- Head of department
- Pastoral care co-ordinator
- Teacher
- Other _____ *(please specify)*

Ask question 3 for all except senior executives

3. What learning areas do you teach? *(please select all that apply)*

- Health/ Physical Education
- English/ Media
- Science
- The Arts
- Technology
- Social Sciences
- Maths
- Workplace training/ careers/ VET
- Other _____ *(please specify)*

4. Which organisation do you believe manages the Keys4Life program in WA?

- I don't know

5. When did you complete the Keys4Life Training Workshop?

_____ *(month/ year)*

6. Are you the Keys4Life Co-ordinator (or the main contact for Keys4Life) at your school?

- Yes
- No
- Unsure

7. Have you personally delivered the Keys4Life Program?

- Yes, at my current school
- Yes, at my previous school
- No, I have never implemented the Program

Ask question 8 if answer 'yes' to question 7

8. Can you please tell us which of the following years you have personally delivered the Keys4Life program? (Please include all the years you delivered the Program, whether this was at your current school or at other schools you have worked)

- | | |
|--|-------------------------------|
| <input type="checkbox"/> 2003 (pilot year) | <input type="checkbox"/> 2013 |
| <input type="checkbox"/> 2004 | <input type="checkbox"/> 2014 |
| <input type="checkbox"/> 2005 | <input type="checkbox"/> 2015 |
| <input type="checkbox"/> 2006 | <input type="checkbox"/> 2016 |
| <input type="checkbox"/> 2007 | <input type="checkbox"/> 2017 |
| <input type="checkbox"/> 2008 | <input type="checkbox"/> 2018 |
| <input type="checkbox"/> 2009 | <input type="checkbox"/> 2019 |
| <input type="checkbox"/> 2010 | <input type="checkbox"/> 2020 |
| <input type="checkbox"/> 2011 | <input type="checkbox"/> 2021 |

SECTION 2: ATTITUDES TO ROAD SAFETY

9. How important do you think it is, to deliver road safety education programs/ courses in schools?

- Very important
 Important
 Not very important
 Not at all important

SECTION 3: PROGRAM SATISFACTION AND KEY BENEFITS

10. How satisfied are you with the following components of the Keys4Life Program?

	Strongly dissatisfied	Dissatisfied	Satisfied	Strongly satisfied	Don't know / not applicable
Keys for Life Professional development workshops	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The availability of ongoing professional development from SDERA	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The ease of following processes and protocols (e.g. for administering the Theory Test and issuing Keys for Life certificates)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The record keeping tools provided by SDERA	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The length of the program (10 lessons)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The time investment required to plan and implement the program	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The ability to readily integrate the program into the school curriculum	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Links to the WA licensing system, WA curriculum and research	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The Keys for Life teaching resources	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98

Accessibility of student and test resources from SDERA and Northside Logistics (eg. Test booklets, Certificates, Student Journal, Drive Safe book)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
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11. If you think about the ways in which you contact and are serviced by SDERA (for example website, phone, emails, newsletters etc.), how satisfied are you with this customer service in terms of...

	Strongly dissatisfied	Dissatisfied	Satisfied	Strongly satisfied	Don't know / not applicable
Queries are responded to quickly and efficiently	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Responses provide information that answer my queries	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Staff are friendly and helpful	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Administration staff are knowledgeable and understand the issue/questions	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Consultancy staff are knowledgeable and understand the issue/questions	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The website provides me with the information I need	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The website is up to date	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The website is easy to navigate/use	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98

12. We want to understand your personal views of the Program benefits. Please indicate the level to which you agree or disagree with the following statements. The Keys4Life Program...

	Strongly disagree	Disagree	Agree	Strongly agree
ROAD SAFETY AND RISK AVOIDANCE				
Develops positive road user attitudes	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Develops relevant road safety knowledge (eg licensing, safer vehicles, safer driving behaviour, first aid)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Develops life skills in a road safety context (e.g. safer choices, risk avoidance)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Develops life skills that can be applied in a range of contexts (e.g. decision making, planning, assertive communication)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Develops awareness of the benefits of supervised driving practice	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Develops knowledge of road rules	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
MEETING THE NEEDS OF STUDENTS				
Students are readily and easily engaged in the program	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Improves student attendance while program is being conducted	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Overcomes barriers that students face in gaining a licence	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Is suitable for all students (i.e. from a range of socioeconomic and cultural backgrounds)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4

13. Please rank the following from 1 to 8 based on what you view as the key benefits or outcomes of the Program. 1 is the most important benefit and 8 is the least important benefit

- Increases students' knowledge of road safety
- Improves students' engagement and attendance at school

- Enables students to start the Learner's Permit process
- Gives students a discounted Learner's Permit fee
- Counts towards community service hours (if students assist with organising the Keys4Life Parent/ Student Information Workshop)
- Gives students one point for WA Certificate of Education (if implemented as an endorsed Program with the Curriculum Council)
- Fits nicely into the term and makes it easy to deliver pre-programmed course work
- Overcomes barriers to gaining a license for students

14. Are there any other important benefits or outcomes of the Keys4Life Program? (please specify)

SECTION 4: PROGRAM IMPROVEMENTS

15. A recent change to the Keys4Life Program is that SDERA is now responsible for printing Keys4Life certificates and posting them to you after completion of the Learner's Permit Theory Test (instead of you ordering and filling them in). Are you satisfied with this new system?

- Yes
- No _____ (please specify)
- Unsure

16. Based on your experience, how could the Keys4Life Program be improved. (Please select all that apply and provide as much additional detail and improvements you seek in the 'other' section)

- Experienced Keys for Life teachers made available to mentor and support 'new' Keys for Life teachers
- Annual feedback and moderation process from SDERA for schools implementing Keys for Life
- Increase awareness of the SCSA-endorsed Keys for Life program (i.e. for student achievement on Statement of Results and unit equivalence)
- Share and acknowledge new research and different implementation models at a biennial Keys for Life forum
- Keys for Life online application (App) for easy and quick access to information
- Regular updates of Keys for Life materials to align with current legislation, curriculum and research
- Half-day 'refresher' Keys for Life professional development workshops for registered (trained) Keys for Life teachers
- Update all trained Keys for Life teachers by emailing a weblink to the Keys for Life Bulletin
- New and improved SDERA website
- Other (please specify)

SECTION 5: CURRENT IMPLEMENTATION OF THE KEYS4LIFE PROGRAM

17. How many separate lessons do your students complete when participating in the Keys4Life Program?

_____ lessons

18. How many hours of lessons do your students complete when participating in the Keys4Life Program?

_____ hours

19. Thinking about the Keys4Life curriculum, what percentage of the content/ activities do you deliver to your students? (*do not include option or extension activities*)

- More than 80%
- 61-80%
- 41-60%
- 21-40%
- Less than 20%

20. Have you experienced any barriers to delivering the content of the Keys4Life curriculum?

- No
- Yes (*please specify*)

21. Do you have any suggestions for improvements that could be made to the content of the Keys4Life curriculum (*please specify*)

SECTION 6: FUTURE USE AND ADVOCACY

22. Are you planning on running the Keys4Life Program at your school in 2021?

- Yes
- No
- Unsure

Open question 23, if answer 'no' to question 22

23. Why are you not likely to run the Program in 2021?

24. How likely are you to recommend the Keys4Life Program to other teachers or schools?

- Definitely likely
- Very likely
- Somewhat likely
- Not very likely
- Not at all likely
- Don't know/ not applicable

25. Before we finish the survey, please take this opportunity to provide us any other feedback you have for SDERA and the Keys4Life Program. (Please provide as much detail as possible. Please click next if you do not have any additional feedback).

THANK YOU FOR COMPLETING THE SURVEY

Appendix 2: Agency teacher survey



2020/21 Keys4Life Agency Teacher Survey: Online

SECTION 1: PROGRAM AWARENESS AND ENGAGEMENT

1. What is the name of the agency/ organisation where you currently teach the Keys4Life Program?

2. What is your role at your current agency/ organisation?

3. Which organisation do you believe manages the Keys4Life Program in WA?

 I don't know
4. When did you complete the Keys4Life Training Workshop?
_____ (month/ year)
5. Can you please tell us which of the following years you have personally delivered the Keys4Life program? (Please include all the years you delivered the Program, whether this was at your current agency or at other agencies you have worked)

<input type="checkbox"/> 2003 (pilot year)	<input type="checkbox"/> 2013
<input type="checkbox"/> 2004	<input type="checkbox"/> 2014
<input type="checkbox"/> 2005	<input type="checkbox"/> 2015
<input type="checkbox"/> 2006	<input type="checkbox"/> 2016
<input type="checkbox"/> 2007	<input type="checkbox"/> 2017
<input type="checkbox"/> 2008	<input type="checkbox"/> 2018
<input type="checkbox"/> 2009	<input type="checkbox"/> 2019
<input type="checkbox"/> 2010	<input type="checkbox"/> 2020
<input type="checkbox"/> 2011	<input type="checkbox"/> 2021

SECTION 2: ATTITUDES TO ROAD SAFETY

6. How important do you think it is, to deliver road safety education programs/ courses in non-school settings?

<input type="checkbox"/> Very important
<input type="checkbox"/> Important
<input type="checkbox"/> Not very important
<input type="checkbox"/> Not at all important

SECTION 3: PROGRAM SATISFACTION AND KEY BENEFITS

7. How satisfied are you with the following components of the Keys4Life Program?

	Strongly dissatisfied	Dissatisfied	Satisfied	Strongly satisfied	Don't know / not applicable
Keys for Life Professional development workshops	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The availability of ongoing professional development from SDERA	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The ease of following processes and protocols (e.g. for administering the Theory Test and issuing Keys for Life certificates)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The record keeping tools provided by SDERA	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The length of the program (10 lessons)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The time investment required to plan and implement the program	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Links to the WA licensing system and research	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The Keys for Life teaching resources	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Accessibility of student and test resources from SDERA and Northside Logistics (eg. Test booklets, Certificates, Student Journal, Drive Safe book)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98

8. If you think about the ways in which you contact and are serviced by SDERA (for example website, phone, emails, newsletters etc.), how satisfied are you with this customer service in terms of...

	Strongly dissatisfied	Dissatisfied	Satisfied	Strongly satisfied	Don't know / not applicable
Queries are responded to quickly and efficiently	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Responses provide information that answer my queries	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Staff are friendly and helpful	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Administration staff are knowledgeable and understand the issue/questions	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
Consultancy staff are knowledgeable and understand the issue/questions	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The website provides me with the information I need	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The website is up to date	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98
The website is easy to navigate/use	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 98

9. We want to understand your personal views of the Program benefits. Please indicate the level to which you agree or disagree with the following statements. The Keys4Life Program...

	Strongly disagree	Disagree	Agree	Strongly agree
ROAD SAFETY AND RISK AVOIDANCE				
Develops positive road user attitudes	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Develops relevant road safety knowledge (eg licensing, safer vehicles, safer driving behaviour, first aid)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4

Develops life skills in a road safety context (e.g. safer choices, risk avoidance)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Develops life skills that can be applied in a range of contexts (e.g. decision making, planning, assertive communication)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Develops awareness of the benefits of supervised driving practice	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Develops knowledge of road rules	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
MEETING THE NEEDS OF STUDENTS				
Students are readily and easily engaged in the program	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Overcomes barriers that students face in gaining a licence	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
Is suitable for all students (i.e. from a range of socioeconomic and cultural backgrounds)	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4

10. Please rank the following from 1 to 4 based on what you view as the key benefits or outcomes of the Program. 1 is the most important benefit and 4 is the least important benefit

- Increases students' knowledge of road safety
- Enables students to start the Learner's Permit process
- Gives students a discounted Learner's Permit fee
- Overcomes barriers to gaining a license for students

11. Are there any other important benefits or outcomes of the Keys4Life Program for students at non-school agencies? (please specify)

SECTION 4: PROGRAM IMPROVEMENTS

12. A recent change to the Keys4Life Program is that SDERA is now responsible for printing Keys4Life certificates and posting them to you after completion of the Learner's Permit Theory Test (instead of you ordering and filling them in). Are you satisfied with this new system?

- Yes
- No _____ (please specify)
- Unsure

13. Based on your experience, how could the Keys4Life Program be improved. (Please select all that apply and provide as much additional detail and improvements you seek in the 'other' section)

- Experienced Keys for Life teachers made available to mentor and support 'new' Keys for Life teachers
- Annual feedback and moderation process from SDERA for agencies implementing Keys for Life
- Share and acknowledge new research and different implementation models at a biennial Keys for Life forum
- Keys for Life online application (App) for easy and quick access to information
- Regular updates of Keys for Life materials to align with current legislation and research

- Half-day 'refresher' Keys for Life professional development workshops for registered (trained) Keys for Life teachers
- Update all trained Keys for Life teachers by emailing a weblink to the Keys for Life Bulletin
- New and improved SDERA website
- Other *(please specify)*

SECTION 5: CURRENT IMPLEMENTATION OF THE KEYS4LIFE PROGRAM

14. How many separate lessons do your students complete when participating in the Keys4Life Program?

_____ lessons

15. How many hours of lessons do your students complete when participating in the Keys4Life Program?

_____ hours

16. Thinking about the Keys4Life curriculum, what percentage of the content/ activities do you deliver to your students? (do not include option or extension activities)

- More than 80%
- 61-80%
- 41-60%
- 21-40%
- Less than 20%

17. Have you experienced any barriers to delivering the content of the Keys4Life curriculum?

- No
- Yes *(please specify)*

18. Do you have any suggestions for improvements that could be made to the content of the Keys4Life curriculum (please specify)

SECTION 6: FUTURE USE AND ADVOCACY

19. Are you planning on running the Keys4Life Program at your agency in 2021?

- Yes
- No
- Unsure

Open question 23, if answer 'no' to question 22

20. Why are you not likely to run the Program in 2021?

21. How likely are you to recommend the Keys4Life Program to teachers at other agencies/ organisations?

- Definitely likely
- Very likely
- Somewhat likely
- Not very likely
- Not at all likely
- Don't know/ not applicable

22. Before we finish the survey, please take this opportunity to provide us any other feedback you have for SDERA and the Keys4Life Program. *(Please provide as much detail as possible. Please click next if you do not have any additional feedback).*

THANK YOU FOR COMPLETING THE SURVEY

Appendix 3: Student surveys - before KFL, after KFL and student perspectives



Keys4Life School Student Survey: Online (Before KFL)

Thank you for agreeing to participate in the online surveys.

1. What is your sex?

- Male
- Female
- Other
- Prefer not to say

2. What is your age?

_____ years

3. What year are you in at school?

- Year 10
- Year 11
- Year 12
- Not applicable

4. What is the name of your school?

5. What date will you/ did you begin the Keys4Life lessons at school this year?

6. Did you attend a Keys4Life parent/ student information workshop?

- Yes
- No
- Unsure

If any of the questions about road safety make you feel distressed or upset, please speak to your Keys4Life teacher, year co-ordinator, school psychologist, school chaplain or another trusted adult.

7. The following questions ask about different driving situations and how safe you think they are. How safe do you think the following are?

	Rarely safe	Sometimes safe	Mostly safe	Always safe
Driving with 2 or more passengers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving between midnight and 6am	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving at 110 km/h in a 100 km/h zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving at 70 km/h in a 60 km/h zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving while talking on a mobile phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving a poorly maintained car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving with a blood alcohol level just over the legal limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving while using SMS on a mobile phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving after smoking marijuana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Going through a red light	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Everyone has different opinions about driving and road safety. Read each sentence and tick the box that best matches your opinion.

	Strongly disagree				Strongly agree
I would get into my friend's car even though s/he is known to be an unsafe driver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would probably ride with a friend who drives unsafely if I trusted him or her	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I might get into the car with friends who I know are unsafe drivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would get into the car with a reckless driver if I had no other way to get home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I might get into the car with an unsafe driver if my friends did	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you are a safe driver, it is ok to speed by 10 km/h in 80-90 km/h speed zones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think it's ok to speed if the traffic conditions allow you to do so	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you have good skills, speeding is OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Driving 5 or 10 km/h above the speed limit is ok because everyone does it

Hurting someone else with my car would scar me for life

Again, we'd like you to select the option that best matches your opinion Strongly disagree Strongly agree

I couldn't live with myself if I hurt another human being in traffic

I might get into the car with a driver who has been drinking

I would get into the car with a driver who has been drinking if I knew and trusted him or her

Most people like to show off their skills by driving fast

When people drive they like to be different- not to be ordinary cautious drivers

People will usually drive faster when their friends are in the car

Sometimes it is necessary to break the traffic rules in order to get ahead

Sometimes it is necessary to take chances in traffic

Sometimes it is necessary to bend the traffic rules to arrive on time

There are many traffic rules which cannot be obeyed in order to keep up the traffic flow

You're doing really well. Please select from the following options Strongly disagree Strongly agree

It is more important to keep up with the traffic flow rather than always follow the traffic rules

Speeding and excitement belong together when you are driving

Driving is more important than transportation, it is also about speeding and fun

I would be very unpopular if I asked the person driving to drive more carefully

If I asked my friends to drive more carefully, it would be seen as a hassle

The risk of dying young in a traffic crash is so low that you can ignore it

Run-off-road crashes are so rare that there is no need to worry about them

You should always follow the traffic rules, regardless of the driving conditions

You should always obey laws when driving

Even at night time on quiet roads it is important to keep within the speed limit

You are nearly finished. Please select from the following options

Strongly disagree Strongly agree

The more hours of supervised driving I do as a learner, the safer I will be as a driver on P-plates

You don't need to wear a seat belt if you are driving on country roads

I'd keep driving if I wanted to get home, even if I was tired and struggling to keep my eyes open

A safer car will protect me and my passengers in the event of a crash


Most crashes happen because drivers make mistakes

Drivers like my parents are more likely to have a road crash than a young person

Female drivers have more road crashes than male drivers

There are more road crashes in the country than in the city

Winding down the window or playing loud music will help a driver stay awake



9. What is the minimum number of supervised driving hours legally required for a WA driver's licence?

- 25 hours
- 50 hours
- 75 hours
- 100 hours
- Unsure

10. How many hours of supervised driving do you intend to achieve and record in your log book?

- Less than 50 hours
- 50 hours
- 50 to 75 hours
- 75 to 100 hours
- 100 to 120 hours
- More than 120 hours

THANK YOU FOR COMPLETING THE SURVEY

Keys4Life Student Survey Online: Post KFL

Thank you for agreeing to complete the second survey for the Keys4Life evaluation.

1. Please provide your contact details

Name: _____

Email: _____

Mobile phone: _____

If any of the questions about road safety make you feel distressed or upset, please speak to your Keys4Life teacher, year co-ordinator, school psychologist, school chaplain or another trusted adult.

2. The following questions ask about different driving situations and how safe you think they are. How safe do you think the following are?

	Rarely safe	Sometimes safe	Mostly safe	Always safe
Driving with 2 or more passengers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving between midnight and 6am	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving at 110 km/h in a 100 km/h zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving at 70 km/h in a 60 km/h zone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving while talking on a mobile phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving a poorly maintained car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving with a blood alcohol level just over the legal limit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving while using SMS on a mobile phone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving after smoking marijuana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Going through a red light	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Everyone has different opinions about driving and road safety.
Read each sentence and tick the box that best matches your opinion.

	Strongly disagree				Strongly agree
I would get into my friend's car even though s/he is known to be an unsafe driver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would probably ride with a friend who drives unsafely if I trusted him or her	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I might get into the car with friends who I know are unsafe drivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would get into the car with a reckless driver if I had no other way to get home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I might get into the car with an unsafe driver if my friends did	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you are a safe driver, it is ok to speed by 10 km/h in 80-90 km/h speed zones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I think it's ok to speed if the traffic conditions allow you to do so	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If you have good skills, speeding is OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Driving 5 or 10 km/h above the speed limit is ok because everyone does it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hurting someone else with my car would scar me for life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Again, we'd like you to select the option that best matches your opinion	Strongly disagree				Strongly agree
I couldn't live with myself if I hurt another human being in traffic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I might get into the car with a driver who has been drinking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I would get into the car with a driver who has been drinking if I knew and trusted him or her	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Most people like to show off their skills by driving fast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
When people drive they like to be different- not to be ordinary cautious drivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
People will usually drive faster when their friends are in the car	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Sometimes it is necessary to break the traffic rules in order to get ahead

Sometimes it is necessary to take chances in traffic

Sometimes it is necessary to bend the traffic rules to arrive on time

There are many traffic rules which cannot be obeyed in order to keep up the traffic flow

You're doing really well. Please select from the following options

Strongly disagree

Strongly agree

It is more important to keep up with the traffic flow rather than always follow the traffic rules

Speeding and excitement belong together when you are driving

Driving is more important than transportation, it is also about speeding and fun

I would be very unpopular if I asked the person driving to drive more carefully

If I asked my friends to drive more carefully, it would be seen as a hassle

The risk of dying young in a traffic crash is so low that you can ignore it

Run-off-road crashes are so rare that there is no need to worry about them

You should always follow the traffic rules, regardless of the driving conditions

You should always obey laws when driving

Even at night time on quiet roads it is important to keep within the speed limit

You are nearly finished. Please select from the following options

Strongly disagree

Strongly agree

The more hours of supervised driving I do as a learner, the safer I will be as a driver on P-plates

You don't need to wear a seat belt if you are driving on country roads

I'd keep driving if I wanted to get home, even if I was tired and struggling to keep my eyes open

A safer car will protect me and my passengers in the event of a crash

Most crashes happen because drivers make mistakes

Drivers like my parents are more likely to have a road crash than a young person

Female drivers have more road crashes than male drivers

There are more road crashes in the country than in the city

Winding down the window or playing loud music will help a driver stay awake

4. What is the minimum number of supervised driving hours legally required for a WA driver's licence?

- 25 hours
- 50 hours
- 75 hours
- 100 hours
- Unsure

5. How many hours of supervised driving do you intend to achieve and record in your log book?

- Less than 50 hours
- 50 hours
- 50 to 75 hours
- 75 to 100 hours
- 100 to 120 hours
- More than 120 hours

6. What was the result of participating in the Keys4Life lessons for you?

- I finished the lessons and received the Keys4Life certificate for my Learner's permit
- I finished the lessons and did not receive the Keys4Life certificate for my Learner's permit
- I did not finish the lessons
- Other _____ (please add)

7. When did you attend your final Keys4Life lesson?

_____ (month/ year)

8. Overall, how satisfied were you with the Keys4Life lessons?

<input type="checkbox"/> Strongly dissatisfied	<input type="checkbox"/> Dissatisfied	<input type="checkbox"/> Satisfied	<input type="checkbox"/> Strongly satisfied
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9. If you were dissatisfied with the Keys4Life lessons, please explain why and how it could be improved. Provide as much detail as possible.

10. Did you attend a Keys4Life parent/ student information workshop?

- Yes
- No
- Unsure

11. Thinking about the Keys4Life lessons, to what extent do you agree or disagree with the following statements?

	Strongly disagree	Disagree	Agree	Strongly agree
I feel more confident in driving / learning to drive.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand the licensing system.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand the risk of alcohol and other drugs in relation to driving.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. Would you like the program (lessons) to provide more information on the following?

	Yes	No
The licensing system	<input type="checkbox"/>	<input type="checkbox"/>
The risks of alcohol and other drugs	<input type="checkbox"/>	<input type="checkbox"/>
The benefit of supervised driving	<input type="checkbox"/>	<input type="checkbox"/>
Safer cars	<input type="checkbox"/>	<input type="checkbox"/>
Other _____		

13. How likely are you to recommend the Keys4Life program to other students?

- Definitely likely
- Very likely
- Quite likely
- Not very likely
- Not at all likely
- Don't know / Not applicable

THANK YOU FOR COMPLETING THE SURVEY

Appendix 4: Non-engaged Principal/ school leader survey



2020/21 Keys4Life Principal/ School Leader Survey: Online

Thank you for agreeing to complete the survey about the Keys4Life Program. All information you provide will remain completely confidential and will only be used for research purposes.

1. How long have you been employed at your current school (in any role)?

- Less than 12 months
- 1-2 years
- 2-5 years
- 5-10 years
- More than 10 years

2. What is your role at your current school? *(Note: School leader version only)*

3. How long have you been in your current role at your school?

- Less than 12 months
- 1-2 years
- 2-5 years
- 5-10 years
- More than 10 years

4. How important do you think it is to deliver road safety education programs/ courses in school settings?

- Very important
- Important
- Not very important
- Not at all important

Please comment on your selection

5. What other programs/ content does road safety compete with at your school?

- Life skills courses
- Career education
- Structured workplace learning
- Other _____ *(please specify)*

6. Does your school currently offer any road safety programs to students?

- Yes _____ (please specify)
- No
- Unsure

If answered 'yes' to question 6, open questions 7-10

7. What sort of material is taught in your school's road safety program?

8. What resources are used?

- Hard copy/ printed material
- Online resources
- Guest speakers
- Other _____ (please specify)

9. Why did your school choose to implement this particular road safety program?

10. Are you satisfied with your current road safety program?

- Yes
- No
- Unsure

Keys4Life is an evidence-based program delivered in schools and other settings. It promotes safer driving among teenagers and offers them the opportunity to obtain their Learner's Permit. It is endorsed by the State Government, Department of Transport, the three education systems, the Road Safety Commission and Curriculum Authority.

11. Had you heard of the Keys4Life Program before today?

- Yes
- No
- Unsure

12. Has your current school implemented the Keys4Life Program in the past?

- Yes
 - No
 - Unsure
-

If answered 'yes' to question 12, open questions 13-15

13. Why did your school stop implementing the Keys4Life Program? (Please select all that apply?)

- Too much competition in the curriculum ('crowded curriculum')
- Teacher/s trained to deliver the Keys4Life Program or who co-ordinated the Program left the school
- Didn't see the benefit of the Program
- Senior staff/ school administration did not support the Program
- Teachers did not support the Program
- Students did not respond positively to the Program
- Parents did not respond positively to the Program
- Program content was not engaging/ relevant for students at my school
- No time for the Keys4Life professional development
- We wanted to implement a different road safety program
- Not enough support from SDERA
- Road safety is not a high priority
- It is not the school's responsibility to teach road safety
- There was no one at the school to take ownership of the Program
- Other _____ (please specify)

14. What do you see as the key opportunities to improve the Keys4Life Program (Please select all that apply?)

- Professional development/ training
- Content of Program
- Number of lessons/ Program length
- Program resources
- Program protocols and requirements
- Guest speakers
- Support from SDERA
- Other _____ (please specify)

Open question 15 for each item selected in question 14

15. In what ways could the Keys4Life Program be improved in terms of _____?

If answered 'yes' to question 11 and 'no' to question 12, open question 16

16. What are the reasons the Keys4Life Program has not been implemented in your school? (Please select all that apply?)

- Too much competition in the curriculum ('crowded curriculum')
- Don't know enough about the Program

- Don't see the benefit of the Program
- Senior staff/ school administration do not support implementation of the Program
- Teachers do not support implementation of the Program
- Students are not interested in the Program
- Parents are not interested in the Program
- Program content is not engaging/ relevant for students at my school
- No time for the Keys4Life professional development
- We implement a different road safety program
- Not enough support from SDERA
- Road safety is not a high priority
- It is not the school's responsibility to teach road safety
- There is no one at the school to take ownership of the Program
- Other _____ (please specify)

17. What can SDERA do (if anything) to encourage you to implement the Keys4Life Program?

18. Before we finish the survey, please take this opportunity to provide us any other feedback you have for SDERA and the Keys4Life Program. (Please provide as much detail as possible. Please click next if you do not have any additional feedback).

THANK YOU FOR COMPLETING THE SURVEY

