



Ollscoil Chathair
Bhaile Átha Cliath
Dublin City University

**School of Computing
RESEARCH ETHICS COMMITTEE**

**APPLICATION FORM FOR ETHICAL REVIEW OF A
RESEARCH PROJECT INVOLVING HUMAN PARTICIPANTS
WHICH IS IN THE CATEGORY OF NOTIFICATION ONLY**

There are 3 generally accepted levels of ethical review for projects carried out in a University or similar setting. These are notification only, expedited and full committee.

This notification only level of review is to approve relatively low-risk research involving human participants, primarily using social science methodologies in which any personal information collected is not of a sensitive nature. The School of Computing Research Ethics Committee has been delegated responsibility by the University to approve ethics submissions from undergraduate and taught Masters projects only, which are in the category of notification only.

Examples of projects in this category include:

- Anonymous surveys in which the topic itself is not likely to elicit significant difficulties for the participants, such as: anonymous internet surveys (e.g. Survey Monkey), street questioning.
- Observation (without audio or visual recording) of public settings where privacy would not normally be expected, such as observing people on streets or at sports events.
- Research carrying no risks beyond those of everyday life (as experienced by the intended participant population), such as asking people's opinions about products or services; asking students about educational experiences; monitoring the impact of daily activities.
- Interviews with public figures, professionals or others in their professional capacity regarding their professional activities.
- Analysis of data (e.g. health records) which have had all identifying information removed by the data holder and been provided to the researcher in accordance with data protection legislation.
- Collection of biological samples which are anonymised and do not require invasive techniques (e.g. hair, nails).

If your project is using data from a public repository like Kaggle or is not generating or using any form of personal data then you do not need research ethics approval, you do not need to complete and to submit this form and your project supervisor should indicate this on the project dashboard.

If your project involves collecting or processing [personal data which is of a personal nature](#), you must first complete the DCU online Data Protection training course and review the "[Data Protection – Key Points for DCU Researchers](#)" guidance from the Data Protection Unit to assist you in meeting your legal obligations under GDPR and associated Irish law.

Once you have completed this form (if you need to) you should save it as a PDF file, not WORD, and upload it to your project dashboard before you start gathering data. It will then be read and assessed by two members of the committee and once two members of the committee approve your submission you will be automatically notified by email and your project can start data gathering.

There are strict deadlines for submitting this form for each class group, undergraduate and taught Masters by which your submission must be made and you will be informed of these deadlines by your course board chair or project co-ordinator. If you do not submit by these deadlines then the research ethics committee is not obliged to approve your submission and when that happens and your project is assessed and graded at the end of the year, you will be awarded 0 for that component of your project.

SECTION 1 – GENERAL DETAILS**1.1 Project Title**

RoadReady – A driving test route app

1.2 Applicant Details

Name	Student or Supervisor	E-mail
Arvind Rawat	Student	arvind.rawat2@mail.dcu.ie
Matthew Mahon	Student	matthew.mahon28@mail.dcu.ie
Hossein Javidnia	Supervisor	hossein.javidnia@dcu.ie

Other Investigators: *Including any external to DCU*

Name	School/Unit/External Institution	E-mail

1.3 Key Project Dates

Proposed start date for data collection	Proposed end date for data collection	Proposed project completion date
1/11/2023	30/3/2023	19/4/2023

1.4 Please indicate which academic awardUndergraduate ☒Taught Masters ☐**1.5 Please confirm the location(s) where the research will be carried out**

If research will be carried out abroad, you will need to address the ethical challenges raised by this in Section 3 of your application - consult the Conducting Research Abroad document in the Ethics Resources and Guidelines section of the [DCU Research Ethics webpage](#)).

Ireland

1.6 Please state what additional permissions may be required to access participants.

Specify from whom the permission is required (e.g. a school Board of Management), and when their written approval will be obtained

N/A

SECTION 2 – PROJECT DESIGN AND METHODOLOGY

Research Overview - Please respect the indicated word counts in the following sections and explain all acronyms in full text the first time they appear.

2.1 Provide a brief description of the research (max 250 words):

Please use lay language, include the scientific/theoretical background of study and a justification as to why this research project should proceed in that context

Our aim is to develop a driving test route app that helps learner drivers prepare for their driving test. Our app will offer features such as route planning, real-time updates, theory test preparation and performance feedback. The study builds upon scientific and theoretical foundations in educating the driver using both technology and general learning tools. This is an innovative solution to improve the learning experience for learner drivers.

This research project should proceed as it addresses the challenges faced by learners in familiarising themselves with the test routes and improving driving skills, thus increasing their chances of passing their driving test. While doing so, it also contributes to safer driving. The app also promotes a sense community and affordability in driver education as it offers convenient and accessible resources to those want to practice with their friends/family and those who have limited access to traditional driving materials.

2.2 Please state the aims and objectives of the project (max 200 words)

We aim to make a multipurpose app to aid in the education of driving. To do this we will provide 3 main features being "Learning Material", "Theory Questionnaire", and "Route Planning and Navigation". Each feature will benefit learner drivers in different aspects of driving tests.

The first feature Learning Material will be all the information a learner will need on the rules & regulations of the road this feature will answer theory test questions and answer unexpected driving situations.

The next feature Theory Questionnaire will challenge the learner's knowledge of the rules of the road and ultimately prepare them for the driving theory test.

The last feature Route Planning and Navigation this feature will help prepare learner drivers for the practical driving test by minimising unexpected situations on the road by familiarising them with every route they will partake in during their practical test.

2.3 Please confirm your methods of data collection:

Tick all relevant check boxes and provide details for each one, including any devices used to collect data, and whether the data will be anonymous, potentially identifiable or identifiable at point of collection

Method	Describe briefly
<input checked="" type="checkbox"/> Interviews or focus groups	Interviews with users to gather feedback on their interaction with the app

<input checked="" type="checkbox"/> Surveys/questionnaires	Questionnaires to get more information on the users' pains in their experience with learning to drive
<input type="checkbox"/> Audio/video recordings	
<input type="checkbox"/> Public observations	
<input type="checkbox"/> Persons in public office	
<input type="checkbox"/> Using existing data (incl. secondary data)	
<input type="checkbox"/> Using human derived material (biological samples)	
<input type="checkbox"/> Standard tests (educational/personality etc.)	
<input type="checkbox"/> Standard educational practices	
<input type="checkbox"/> Other (please specify)	

2.4 Please confirm who the participants on this study will be, including group size and composition:

Include associated demographic characteristics, and state how your proposed sample size was determined (e.g. power analysis)

<p>The participants of this study will mainly be those:</p> <ol style="list-style-type: none"> 1) Who are studying for their theory test. 2) Who are studying for their driving test. 3) Who have recently passed their driving test 4) Who have holders of full drivers permit for over 2 years <p>Assuming a 95% confidence level and a 5% margin of error</p> <p>We use the formula: $n = \frac{Z^2 \times p \times (1-p)}{E^2}$</p> <p>n = required sample size Z = the desired level of confidence (e.g., 1.96 for 95% confidence) p = estimated proportion in this case is 0.5 (those that will possibly get the desired outcome) E = margin of error (expressed as a proportion, e.g., 0.05 for 5%)</p> <p>$n = \frac{1.96^2 \times 0.5 \times (1-0.5)}{0.05^2} = 384.16$</p> <p>based on these calculations, we would require approx. 385 participants for this study</p>
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2.5 Please outline your recruitment process, including where you are sourcing participants from and your criteria for inclusion/exclusion:

Where gatekeepers are involved, outline the procedures relating to their involvement

<p>We will be sourcing our participants from university campuses and driving test centres. The criteria for inclusion will be:</p>
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If your participants are not in any of these categories, tick N/A

<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> Children under 18 years of age
<input type="checkbox"/> Persons in unequal relationships with the researcher (<i>e.g. lecturer-student, therapist-client, employer-employee</i>)
<input type="checkbox"/> People with a recognised or diagnosed intellectual, physical or mental impairment
<input type="checkbox"/> People confined to institutions (<i>e.g. prisoners, residents in 24 hr nursing facilities</i>)
<input type="checkbox"/> People who have undergone traumatic or adverse emotional events
<input type="checkbox"/> People with diminished cognitive ability
<input type="checkbox"/> Marginalised sections of society
<input type="checkbox"/> Other (please specify)
Special arrangements:

If your participants are not in this category, tick N/A

<input checked="" type="checkbox"/> N/A
<input type="checkbox"/> We confirm that we have read and agree to act in accordance with the DCU Child Protection policy and procedures (<i>as per the DCU Child Protection Unit webpage</i>)
<input type="checkbox"/> We confirm that we have put in place safeguards for the children participating in the research
<input type="checkbox"/> We confirm that we have supports in place for children who may disclose current or historical abuse (whether or not this is the focus of the research)
<input type="checkbox"/> We confirm that all requirements will be met prior to commencing the research (<i>e.g. TUSLA Children First Training completed. Garda Vetting in place</i>)

Include a statement on whether the participants will be provided with any information as to the findings or outcomes of the project

The participants will not be provided with any information as to the findings or outcomes of the project.

SECTION 3 – ETHICAL ISSUES AND RISK MANAGEMENT

3.1 Please identify all issues including ethical issues which may arise in the course of this research. What are the potential risks to participants, and how will those risks be addressed or minimised?

Potential risks can be physical, psychological, social, legal, etc. Please include details of any additional support being provided for participants during/after the study

A potential risk would be their personal information being leaked.

A solution for this is the deletion of their information once the project has concluded.

3.2 Please identify the potential benefits (direct and/or indirect) to those participating in this research:

Potential benefits should outweigh the potential risks to participants

Benefits for the participants will be:

- Compensation (gift cards, cash rewards, coupons)
- Live updates throughout the development of our app
- Free premium version of the app
- Direct answer to queries
- Early access to upcoming features of the app
- Contribution to a cause (improved road safety)

3.3 Please describe what measures/protocols you have put in place in the event that there are any unexpected outcomes or adverse effects to participants arising from involvement in the research:

If they are running late, we will wait patiently for them.

If they cannot make the interview, we can propose a new suitable meeting time

3.4 Do you intend to provide payment or incentives to participants?

Yes ☒

No ☐

If Yes, please consult the REC Guidelines on the Use of Compensation and Incentives (in the Ethics Resources and Guidelines section of the [DCU Research Ethics webpage](#)) before providing additional details below

We will provide the participants with a version of the app that includes premium features (creating own routes, access full set of theory questions)

3.5 Does this research raise any potential risks for the researchers themselves?

Please consider the location/environment where the research is being conducted, exposure to distressing data content etc.

Yes ☐

No ☒

If Yes, please describe further and explain what risk management procedures will be put in place to minimise these risks to researchers:

3.6 Does this research raise any potential conflict of interest?

Please consider any potential real or perceived conflicts of interest that might influence the integrity of the research, or give rise to bias in conducting and reporting the research, or affecting publication (consult the [DCU Conflict of Interest Policy](#) for assistance)

Yes ☐ No ☒

If Yes, please identify and explain the steps being taken to address that conflict:

3.7 Please describe how the conduct of the research will be monitored:

Regular oversight by the PI is required to ensure the project conforms to the procedures set out in this application (especially where several people are involved in carrying out the research procedures)

For interviews and surveys with participants we will have prewritten questions approved by our supervisor before we ask them. These questions will not be changed unless approved by our supervisor.

SECTION 4 – CONFIDENTIALITY AND DATA MANAGEMENT

4.1 Considering your previous response in section 2.3 of the form on data collection, please confirm whether you are collecting or processing personal data in this research project:

Personal data is any information about a living person, where that person is either identified, or could be identified from the data itself, or when it is combined with other data. This includes paper based, electronic and biological samples data. If your data is fully and completely anonymous, it is not personal data.

Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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If Yes, please confirm your compliance with the following by ticking the checkboxes:

<input checked="" type="checkbox"/> We confirm that we have completed the DCU Data Protection training module on Loop.
<input checked="" type="checkbox"/> We confirm that we have read the "Data Protection – Key Points for DCU Researchers" guidance on the DCU Data Protection Unit (DPU) website and agree to protect and manage our data in accordance with same.
<input checked="" type="checkbox"/> We have assessed the degree of risk inherent in the personal data being used in the research project, and confirm that all DPU GDPR requirements have been met prior to submitting this application (e.g. completion of Data Protection questionnaire, confirmation that any survey tool being used is GDPR compliant, that required Data Processing or Sharing Agreements will be in place, etc.)

4.2 Data access – please confirm whether access to participant data is confined to the investigators named on this application:

Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
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If No, please name who the other individuals are and why they need access. Any proposed transfer of data (including outside of the EU) should be detailed here.

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4.3 Data storage – please confirm compliance with the following:

<input checked="" type="checkbox"/> Data collected on mobile devices will be protected with a strong password/passphrase at a minimum, and/or encrypted if the device supports it
<input checked="" type="checkbox"/> Data will be removed from mobile devices as soon as is practicable and stored in a secured location in DCU (on server or institutional Google Drive)
<input type="checkbox"/> Paper based data will be held securely in locked cabinets in DCU, with access restricted to the named researchers
<u>Specific arrangements in relation to biological samples should be stated here:</u>
<u>Any exemptions to the above compliance statements should be justified here:</u>

4.4 Please confirm who will be responsible for the secure storage of data generated by the research:*Name the relevant DCU investigator/s*

Matthew Mahon Arvind Rawat

4.5 Please confirm how long the data will be held for:*For personal data, consult section 15: Retention of Personal Data in the [“Data Protection – Key Points for DCU Researchers”](#) guidance on the DCU Data Protection Unit (DPU) website*

7 months

4.6 Please confirm what will happen to the data collected at the end of the study:*Please tick the relevant checkbox and complete the associated follow-up section for that category*Archived ☐Destroyed ☒Other ☐**4.6.1 Archived data***Please provide the following details:*

Name the DCU staff member responsible for archival and future use of data	
Confirm whether the data will be made available to other researchers, and if so, how?	
Confirm <u>how</u> the data will be prepared for archive (e.g. will datasets be anonymised)	
Confirm <u>where</u> the data will be archived and who will be allowed to access it	

4.6.2 Destroyed data*Please provide the following details – Note: for student projects, the supervisor must take responsibility for data destruction if there is no guarantee the student will have access to the data at the time of destruction*

Please justify why the data will be destroyed	<i>To protect the participants personal data when it is no longer being used</i>
Name the DCU researcher responsible for destruction of data	<i>Matthew Mahon</i>
Confirm when the data will be destroyed (specify date)	<i>1st of April 2024</i>
Confirm compliance with the following destruction methods (tick relevant boxes)	<input checked="" type="checkbox"/> Electronic data will be overwritten/securely deleted <input type="checkbox"/> Paper based data will be confidentially shredded <input type="checkbox"/> Medical samples will be disposed in accordance with the relevant DCU approved SOP

4.6.2 Other - Please explain what will happen to the data if not being archived or destroyed:

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SECTION 5 – PARTICIPANT INFORMATION AND INFORMED CONSENT PROCEDURES

In addition to completing this form you are required to attach, within the single PDF that you submit, a copy of (1) the Participation Information Sheet which you share with your participants and (2) a copy of the Informed Consent Form which your participants sign.

5.1 Please confirm that the following items have been addressed in your Participant Information Sheet which should be shared with all participants whether it involves online or in-person data gathering:

The items below should be used as headings in your information sheet. Note the language used under each item must reflect the participant age group and corresponding comprehension level– if your participants have different comprehension levels (e.g. both adult and child participants) then separate sheets must be prepared for each set. Templates are available via the [REC Forms - Applications, Templates and Amendments section](#) of the Research Ethics website.

Checklist – tick the relevant check box for each item	Yes	No
Introductory Statement (Researcher names and titles, school, title of the research study)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
What is this research about?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Why is this research being conducted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Why have you been invited to take part?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
What will happen if you decide to take part in this research study?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
How will your data be used?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
How will your privacy be protected (including any legal limits to confidentiality)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
What are the benefits of taking part in this research study?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
What are the risks of taking part in this research study?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Can you change your mind at any stage and withdraw from this study?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
How will you find out what happens with this project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Contact details for further information	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If you marked any item as No, please explain and justify why:

5.2 Informed Consent Procedures – please confirm whether written consent is to be obtained:

Please tick the relevant checkbox

Yes ☒

No ☐

If Yes, describe the procedures by which written consent will be obtained. If you are involving child participants, you will also need to obtain their written assent. Templates are available via the [REC Forms - Applications, Templates and Amendments section](#) of the Research Ethics website.

We will have a Consent Page which will need to be filled in before participants answer or forms. This will also need to be filled before interviewing any participants.

If No, describe the procedures regarding how consent/assent will be obtained:

SECTION 6 – SUBMISSION CHECKLIST AND RESEARCHER DECLARATION

6.1 Please confirm all required supplementary documentation to be included in this application within Section 7:

Checklist – tick the relevant check box for each item	Yes	N/A
Participant Information Sheet/s	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Informed Consent Form/s	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Informed Assent Form/s	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Recruitment Advertisement	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Questionnaire/Survey	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Interview/Focus Group Questions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Debriefing Material	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Bibliography	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Approval from another Research Ethics Committee	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Evidence of other external approvals (e.g. Board of Management letter)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Evidence of internal approvals (e.g. BSC approval review letter)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other – provide details here:	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6.2 Signed Declaration

By submitting this form, the applicant (and supervisor) agree to the following:

The information contained herein is, to the best of my knowledge and belief, accurate. I have read the University's current research ethics guidelines, and accept responsibility for the conduct of the procedures set out in the attached application in accordance with the form guidelines, the [REC guidance and resources](#), the University's [Conflict of Interest Policy](#), its [Code of Good Research Practice](#) and any other condition laid down by the Dublin City University Research Ethics Committee. I have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my obligations and the rights of the participants.

I also acknowledge my requirement to be informed as to other duties and legal obligations applying to my research, and to comply with these duties and obligations – this includes being informed about DCU Data Protection guidelines for researchers, DCU Child Protection policy and procedures (where relevant) and DCU Insurance requirements.



I and my co-investigators and/or supporting staff have the appropriate qualifications, experience and facilities to conduct the research set out in the attached application and to deal with any emergencies and contingencies related to the research that may arise. Research will not commence until required consents and approvals are in place.

Electronic Signature(s):

Supervisor:  _____

Print Name here: Hossein Javidnia

Date: 20 October 2023

Student(s) signature(s):   _____

Print Name(s) here: Arvind Rawat, Matthew Mahon

Date: 20/10/2023

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SECTION 7 – SUPPLEMENTARY DOCUMENTATION

Participant Information Form Road Ready

Dear Participant,

Thank you for your interest in participating in our study. Before you decide whether to take part, we would like to provide you with important information about the study and what it involves. Please read the following details carefully and feel free to ask any questions before making your decision.

WHO WE ARE AND WHAT THIS STUDY IS ABOUT

We are Matthew and Arvind, students from Dublin City University. The objective of this study is to get a better understanding of the learner's perspective on the driving test and their willingness to utilise an innovative mobile application to assist them in preparing for their test.

The driving test route app – “RoadReady” we are developing will provide a range of features to support learners in their preparation. Features include route planning, turn-by-turn direction on test routes, theory test preparation materials, and performance feedback.

By exploring the learner's perspective and preferences through this research, we seek to develop an app that meets the specific needs of learner drivers and improves their overall readiness for the driving test.

WHAT WILL TAKING PART INVOLVE?

If you choose to participate, you will be asked to answer a brief questionnaire which will ask you questions about your experience with learning the rules of the road and with taking the driving tests. The estimated time commitment for participation is approximately 5 minutes.

WHY HAVE YOU BEEN INVITED TO TAKE PART?

You have been invited to participate because we were looking for participants over the age of 18, with an Android or IOS phone, who are currently studying for their theory/driving test/or have passed their driving test. Your experiences and perspectives are valuable in shaping the development of our app, ensuring that it meets the needs of learner drivers like yourself.

DO YOU HAVE TO TAKE PART?

Participation in this study is entirely voluntary. You have the right to decide not to take part or to withdraw at any time without providing a reason. Your decision will have no effect on your relationship with Dublin City university.

WHAT ARE THE POSSIBLE RISKS AND BENEFITS OF TAKING PART?

There are no known risks associated with participating in this study. However, as with any research involving data collection, there is a minimal risk of breach of confidentiality. We will take all necessary precautions to protect your personal information (see the next section for more details).

The potential benefits of participating include:

- Compensation (gift cards, cash rewards, coupons)
- Live updates throughout the development of our app
- Free premium version of the app
- Direct answer queries
- Early access to upcoming features of the app
- Contribution to a cause (improved road safety)

WILL TAKING PART BE CONFIDENTIAL?

Yes, all information you provide will be treated with strict confidentiality. Your responses will only be viewed by the two of us.

HOW WILL INFORMATION YOU PROVIDE BE RECORDED, STORED, AND PROTECTED?

Any information you provide in the survey will be securely recorded and stored in compliance with data protection regulations. Access to the data will be restricted to authorized research personnel only. All data will be stored on password-protected systems and destroyed in accordance with our data retention policy.

WHAT WILL HAPPEN TO THE RESULTS OF THE STUDY?

The results of this study will be analysed and used to refine and improve our test route app. Findings may be presented at conferences, published in academic journals, or used for educational purposes. However, no individual participant will be identified in any publication or presentation.

WHO SHOULD YOU CONTACT FOR FURTHER INFORMATION?

If you have any questions, concerns, or require further information about this study, please feel free to contact arvind.rawat2@mail.dcu.ie or matthew.mahon28@mail.dcu.ie who will be happy to assist you.

Thank you for considering participation in this study. Your contribution is greatly appreciated, and it will help us develop RoadReady that meets the needs of learners like yourself. If you decide to participate, please proceed to the survey, or follow the instructions provided to begin.

Informed Consent Form

1. I have read the Participant Information Sheet
☐ Yes
☐ No
2. I understand the information provided.
☐ Yes
☐ No
3. I understand the information provided in relation to data protection.
☐ Yes
☐ No
4. I understand I may withdraw from this Research Study at any point.
☐ Yes
☐ No
5. I have read and understand the arrangements to be made to protect confidentiality of data, including that confidentiality of information provided is subject to legal limitations.
☐ Yes
☐ No
6. I have read and understand confirmations relating to any other relevant information as indicated in the PIS.
☐ Yes
☐ No
7. I consent to participate in this research study.
☐ Yes
☐ No

Research Questionnaire

Name:

Email

1. Demographic information

Are you over the age of 18?

- ☐ Yes
☐ No

Are you a student?

- ☐ Yes
☐ No

2. Theory Test Experience

Have you passed your Theory Test?

- ☐ Yes
☐ No

If yes, did you use an app to practice?

- ☐ Yes
☐ No

Would you prefer using a mobile app to practice for the Theory Test?

- ☐ Yes
☐ No

What difficulties (if any) did you encounter when studying for the Theory Test?

Was it difficult when finding learning materials for the Theory Test?

- ☐ Yes
☐ No

3. Driving Test Experience

Have you passed your driving test?

- ☐ Yes
☐ No

If yes, did you use an app to help you prepare for your driving test?

- ☐ Yes
☐ No

If yes, did you use one or multiple apps?

- ☐ One
☐ Multiple

Would you recommend using an app when preparing for a driving test?

- ☐ Yes
☐ No

Did you know the potential routes you would be taken on when taking your driving test?

- ☐ Yes
☐ No

If yes, did knowledge of the routes improve your result in your opinion?

- ☐ Yes
- ☐ No

What difficulties (if any) did you encounter when preparing for the driving test?

Have you ever attempted to plan routes for your driving test?

- ☐ Yes
- ☐ No

If yes, did you struggle planning out routes to practice?

- ☐ Yes
- ☐ No

4. Technology Use and App Preferences

How frequently do you use learning applications?

- ☐ Daily
- ☐ A few times a week
- ☐ Rarely
- ☐ Never

Are you comfortable using mobile apps for learning purposes?

- ☐ Yes
- ☐ No

What features would you expect from a driving test route app to help you prepare for your test?

- ☐ Live updates on the road
- ☐ Turn-by-turn directions.
- ☐ Complete set of theory questions including road signs, hazard perception etc
- ☐ Platform to chat with other users/driving instructors.
- ☐ Educational videos for key driving knowledge
- ☐ Free of cost
- ☐ Ability to monitor speed and prompt user if over speeding.
- ☐ Other

If other, please include more information.

5. Willingness to use the RoadReady app

Would you be willing to use a mobile app to help you prepare for your driving test?

- ☐ Yes
- ☐ No

If yes, what specific functionalities would you like to see in a driving test route app?

What potential benefits do you perceive in using a driving test route app for your preparation or in general?

6. Learning Preferences and Study Habits

How would/do you typically prepare for driving exams or tests? (select all that apply)

- ☐ Online resources or websites
- ☐ ChatGPT
- ☐ Watching instructional videos or tutorials
- ☐ Reading textbooks
- ☐ Taking notes/creating summaries
- ☐ Practice tests or quizzes
- ☐ Other

If other, please include more information.

Do you prefer studying independently or with others?

☐ Independently

☐ Group

What resources or study materials do you find most helpful for learning?

☐ Online resources or websites

☐ ChatGPT

☐ Watching instructional videos or tutorials

☐ Reading textbooks

☐ Taking notes/creating summaries

☐ Practice tests or quizzes

☐ Other

If other, please include more information.

7. Feedback and Suggestions

Do you have any suggestions for improving the driving test route app concept?

☐ Yes

☐ No

If yes, please provide more information:

Is there anything else you would like to share about your experiences or needs as a learner driver or full permit driver?

Thank you for participating in our research questionnaire! Your input is greatly appreciated and will help us develop RoadReady that meets the needs of learner drivers.

Interview/Focus Group Questionnaire

1. How do you/did you track your progress and identify areas for improvement while preparing for your driving test?

☐ Using checklist of driving skills

☐ Track hours of practice

☐ Keeping a log of challenging manoeuvres or situations

☐ Seeking feedback from a driving instructor/supervisor

☐ Using a mobile app or online platform for progress tracking

☐ Other

If other, please include more information.

2. In your opinion, what are the key advantages and disadvantages of using technology, such as a driving test route app, in driver education?

Advantages:

☐ Increased accessibility of learning materials

☐ Interactive and engaging learning experiences

☐ Convenience of self-paced learning

☐ Other

If other, please include more information.

Disadvantages:

- ☐ Potential distractions from driving
- ☐ Reliance on technology
- ☐ Lack of real-time feedback from a human instructor
- ☐ Other

If other, please include more information.

3. Can you share any experiences where technology has helped or hindered your learning process in other areas?

Helped

- ☐ Online tutorials or instructional videos,
- ☐ Interactive learning platforms,
- ☐ Access to a wide range of educational resources
- ☐ Other

If other, please include more information.

Hindered

- ☐ Issues or glitches with online tools
- ☐ over-reliance on technology leading to less active engagement or critical thinking
- ☐ Other

If other, please include more information.

4. What role do you think personalized feedback and guidance should play in a driving test route app? How can it be most effective?

- ☐ Should provide specific areas for improvement and actionable suggestions.
- ☐ It should adapt to the learner's performance and provide targeted practice exercises.
- ☐ It should offer a balance of positive reinforcement and constructive criticism.
- ☐ Real-time feedback during practice sessions can be beneficial for immediate improvement.
- ☐ Other

If other, please include more information.

Thank you for you participating in this interview/focus group questionnaire!

Your insights and perspectives will be incredibly valuable in shaping our understanding of the learner drivers' preferences. We appreciate your time and thoughtful contributions to this study.