Adaptable By Design

Improving Vehicle-Based Camping Experiences in Australia

Research Report

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Executive Summary

Vehicle-based camping is a significant form of recreation and domestic tourism in Australia, particularly across regional and remote areas where users rely heavily on their vehicles and equipment throughout the camping experience. This report explores the challenges associated with vehicle-based camping and opportunities for design to improve the comfort, efficiency and adaptability of these experiences.

The project aimed to understand how campers interact with equipment, vehicles and changing environmental conditions before identifying opportunities for future product development. A mixed-methods research approach was undertaken, combining literature research and product benchmarking with primary research consisting of an online survey of 20 participants and four semi-structured interviews with participants representing recreational camping, camping retail, remote 4 wheel-drive (4WD) travel and outdoor-product-development perspectives. Quantitative and qualitative data were analysed and triangulated to identify recurring patterns across the research.

Five overarching themes emerged. Collectively, these findings demonstrated that challenges surrounding setup, pack-down, environmental exposure, accessibility and comfort are interconnected, while user requirements vary according to experience, camping style and intended use. These findings informed five design implications. The report concludes that there is a clear opportunity for vehicle-based camping products that respond more effectively to changing users, activities and environmental conditions while reducing the effort, complexity and equipment burden associated with the camping experience.

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Introduction

Background

Benchmarking

Introduction

Vehicle-based camping forms a significant part of domestic recreation and tourism in Australia, particularly within regional areas. In 2025, Australians undertook 17.3 million overnight caravan and camping trips, generating 57.9 million visitor nights, of which 87% occurred in regional Australia (TRA, 2025). This participation is accompanied by considerable variation in camping styles, vehicles, equipment and user experience.

Unlike fixed accommodation, vehicle-based camping requires users to repeatedly transport, organise, deploy and pack away equipment while responding to changing outdoor conditions. These interactions influence comfort, convenience, efficiency and equipment reliability. Differences in user experience and camping environments also mean that equipment requirements vary considerably between campers.

The aim of this project is to explore how industrial design can improve the comfort, efficiency and adaptability of future vehicle-based camping experiences in Australia, particularly for touring campers travelling through regional and remote environments. Through background research, product benchmarking and mixed-method primary research, the project investigates recurring user challenges, behaviours and product compromises to identify opportunities for future design development.

Figure 1 illustrates the overall project structure, outlining the progression from initial research and benchmarking through data collection, analysis, concept development and final design evaluation.

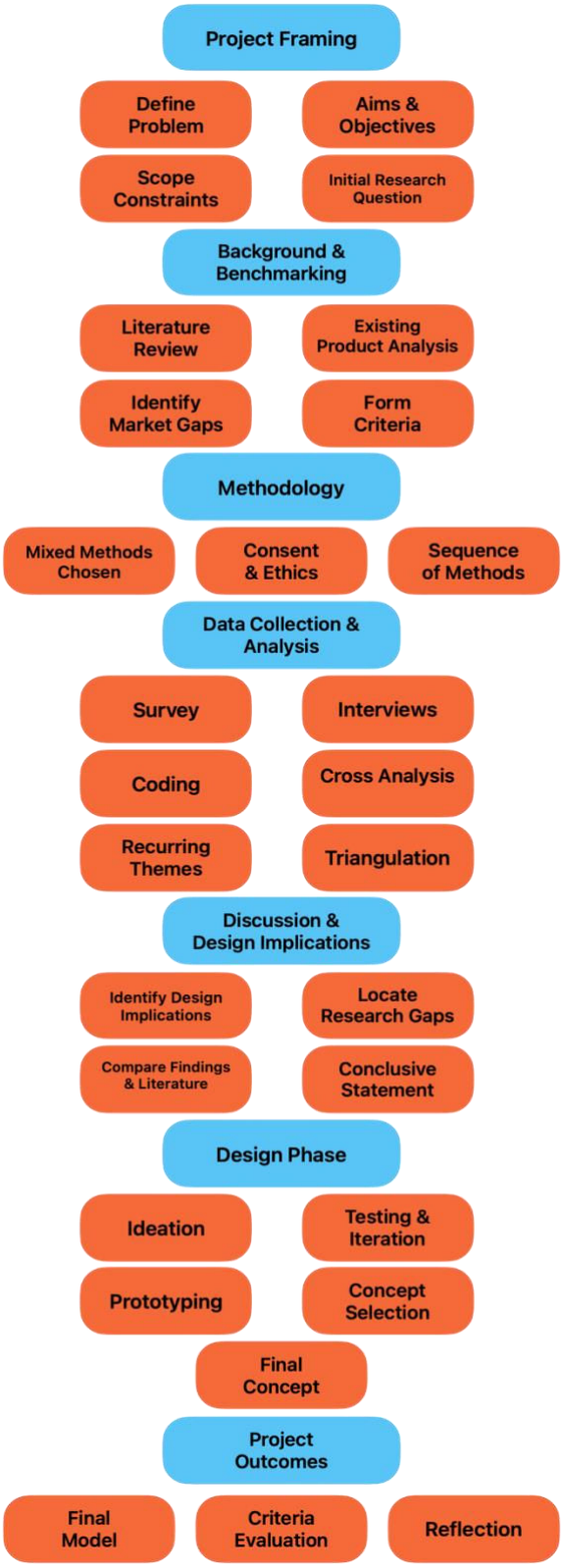


Figure 1: Overall Project Structure

Background

Vehicle-based camping encompasses diverse users, equipment configurations and travel behaviours. Hardy and Kirkpatrick (2017) identified considerable variation in the attitudes and behaviours of recreational vehicle (RV) users, demonstrating that camping and touring populations should not be considered a single homogeneous user group. McFarlane (2004) reinforced this, finding that experience, familiarity and bush skills were associated with different site choices among vehicle-based campers, indicating that requirements and behaviours can change with recreational experience.

Australian camping practices are similarly evolving. Godwin and Smith (2023), surveying 987 campers across Western Australian national and conservation parks, found that 87.6% travelled using their own passenger vehicle or 4WD, while 46.9% had purchased their primary camping equipment since 2020. The study also identified changes in camping frequency, trip behaviour and future equipment preferences, suggesting an evolving market in which equipment requirements vary between users and travel contexts.

Outdoor environmental conditions introduce an additional layer of complexity. Australian research has shown that thermal comfort in outdoor environments is influenced by factors including temperature, solar radiation, wind, humidity and individual adaptation (Shooshtarian et al., 2020). Spagnolo and de Dear (2003) similarly demonstrated that comfort expectations in outdoor and semi-outdoor environments differ from conventional indoor conditions. For vehicle-based campers, these factors interact with temporary shelter, equipment and campsite configuration, making environmental conditions relevant not only to personal comfort but also to how equipment is used and managed.

Human-factors research provides a broader way of understanding these interactions. Salmon and Macquet (2019) describe outdoor recreation as involving relationships between individuals, equipment, and wider environmental and system conditions rather than isolated interactions with individual products. This perspective is particularly relevant to vehicle-based camping, where shelter, storage, vehicles, equipment and users operate together as part of a temporary campsite system.

Together, the literature highlights user diversity, changing equipment requirements and environmental variability as important characteristics of vehicle-based camping. These factors provide a basis for investigating how practical activities such as setup, organisation, equipment access and pack-down influence the broader camping experience and where industrial design may contribute to improved outcomes.

Benchmarking

Benchmarking was undertaken to understand how existing products address common requirements of vehicle-based camping and to identify areas where current solutions involve design compromises. Thirteen products were selected across two categories: five vehicle-storage solutions (Appendix 1) and eight shelter systems (Appendix 2). Products represented a range of price points, levels of vehicle integration and design approaches, including conventional camping products and adjacent-market examples. The ShadeLAB Edge, for example, was included to examine an alternative approach to integrated retractable shade despite not being designed specifically for vehicle-based camping.

Products were comparatively assessed using manufacturer specifications, product documentation and publicly available review information. Shelter criteria included coverage, ease of setup, portability, durability and stability, weather protection, environmental adaptability, packed efficiency, and multifunctionality. Storage products were compared across accessibility, capacity, organisation, modularity, portability, vehicle integration, affordability, and ease of installation. Scores from 1-10 were used for relative comparison within each product category rather than as absolute product-performance ratings. Figures 2 outlines the evaluation criteria used.

Criteria (Storage)	1-2 (lowest)	9-10 (highest)	Criteria (Shelter)	1-2 (lowest)	9-10 (highest)
Accessibility	Difficult / Slow	Quick / Easy	**Coverage**	Very Limited Area	Very Large Area
Capacity	Very Limited	Very Large	**Ease Of Setup**	Complex / Time Consuming	Quick / Simple
Organisation	Unstructured / Difficult	Clear Separation / Organisation	**Portability**	Heavy / Fixed	Lightweight / Transportable
Modularity	Fixed	Reconfigurable / Expandable	**Durability & Stability**	Very Poor	Highly Durable / Stable
Portability	Heavy / Fixed	Lightweight / Transportable	**Weather Protection**	Minimal Protection	Comprehensive Protection
Vehicle Integration	Little Use of Vehicle-Specific Space	Purpose-Designed Use of Available Vehicle Space	**Environmental Adaptability**	Limited Adaptability to Changing Weather Conditions	Configurable Across Changing Conditions
Affordability	High Cost Relative to Category	Low Cost Relative to Category	**Packed Efficiency**	Bulky / Inefficient Relative to Coverage	Compact / Efficient Relative to Coverage
Ease Of Installation	Complex / Permanent / Specialist	Quick / Simple / Reversible / DIY	**Multifunctionality**	Single Primary Function	Multiple Functions Integrated

Figure 2: Benchmarking Evaluation Criteria

Vehicle Storage Systems

Storage benchmarking highlighted a tension between permanent vehicle integration and reconfigurable use. Integrated systems generally provided strong organisation and accessibility but required dedicated space and more involved installation, while removable systems offered greater flexibility and reversibility. Vehicle-specific systems such as ARB drawers and slide kitchens use available vehicle space effectively and provide consistent access to equipment, but involve comparatively high cost, dedicated space and more involved installation. For example, ARB (n.d.) describes its Slide Kitchen as a fully integrated system designed specifically to operate within its drawer frame. Less permanent solutions provide greater flexibility. KAON's rear roof shelves use underutilised vertical space and can be installed without drilling on many vehicles, while DARCHE's tailgate bag provides removable external storage. The LockNMat system takes a different approach again, using repositionable dividers over a modular tray surface without permanent modification. Figure 3 summarises these trade-offs, highlighting differences in organisation, portability, vehicle integration and ease of installation.

	Drawers	Slide Kitchen	Shelf	Tailgate Bag	Modular Mat & Tub Divider
Accessibility	8	9	8	9	8
Capacity	8	4	4	3	8
Organisation	7	9	7	8	9
Modularity	5	5	6	5	10
Portability	2	1	5	10	8
Vehicle Integration	9	10	8	5	7
Affordability	3	1	7	9	6
Ease Of Installation	3	2	8	10	9

Figure 3: Storage Benchmarking Heatmap

Figure 4 illustrates the opportunity for a system that combines strong vehicle integration and modularity without requiring complex or permanent installation.

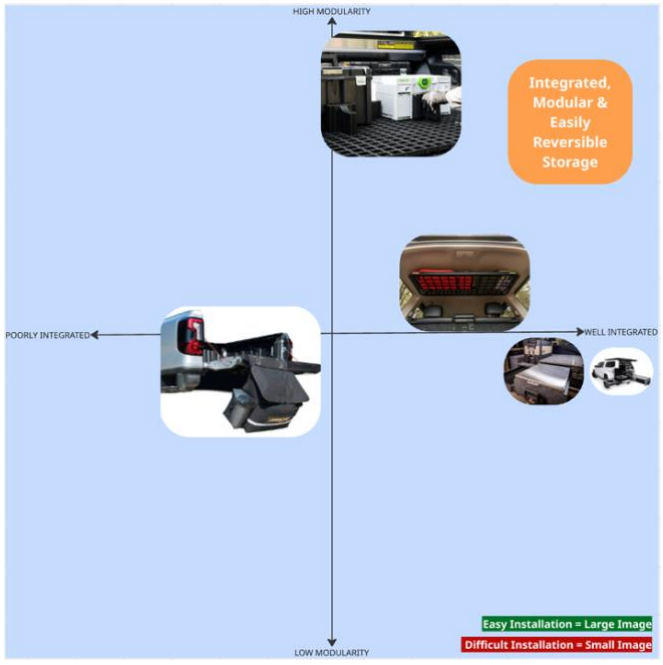


Figure 4: Trade-off Matrix – Vehicle Integration vs Modularity vs Ease of Installation

Shelter Systems

The shelter comparison identified recurring trade-offs between environmental performance, setup effort, and packed efficiency. Greater coverage and weather protection were generally associated with increased structure, weight, or setup requirements, although the extent of these compromises varied between products. Kings side awning provided relatively compact vehicle-mounted shelter but is limited in coverage, compared to larger 180° and 270° systems. The XTM 180° awning provides 8.9 m^2 of coverage at 22.8 kg (BCF, n.d.), while Rhino-Rack's Freestanding 270° Batwing provides 12.3 m^2 of coverage but weighs 31.7 kg (Rhino-Rack, 2023).

Alternative shelter designs demonstrate different approaches to this trade-off. OZtrail's 4.2 BlockOut Shade Dome prioritises environmental protection, stating it can reduce internal temperatures by up to 10°C, but weighs 23.7 kg (OzTrail, n.d.). The Stratus Outdoors Climate Changer II uses a dual-layer airflow system and recycled polyester fabric to improve thermal performance at a substantially lower packed weight of 10.6 kg (Stratus Outdoors, 2024).

	Side Awning	180°	270° Batwing	Gazebo	Air Shade	Blockout	CC II	Edge
Coverage	2	4	6	4	6	9	10	10
Ease of Setup	7	7	8	4	8	4	4	9
Portability	8	5	3	4	8	4	8	1
Durability & Stability	4	7	8	6	5	6	7	9
Weather Protection	4	6	8	5	7	8	9	8
Environmental Adaptability	4	5	7	3	5	7	8	7
Packed Efficiency	8	7	5	3	9	8	10	1
Multifunctionality	2	4	6	4	4	4	8	7

Figure 5: Shelter Benchmarking Heatmap

Figure 6 highlights that products combining environmental adaptability with relatively easy setup already exist; however, these benefits are often accompanied by compromises in portability or packed efficiency. This suggests an opportunity for shelter systems that balance adaptability, rapid deployment and compact storage more effectively.



Figure 6: Trade-off Matrix – Setup vs Adaptability vs Packed Efficiency

02

Research

Analysis & Findings

Research

Primary research used a mixed-methods approach combining quantitative and qualitative data to investigate experiences, behaviours and challenges associated with vehicle-based camping in Australia. This enabled recurring patterns to be considered alongside detailed accounts of how camping equipment is selected, used and managed in practice (Creswell & Creswell, 2018).

Two complementary methods were used: an online survey and four semi-structured interviews. The completed survey instrument is provided in Appendix 3. The survey identified broader patterns across participants, while interviews provided additional context and explanation. Comparing evidence across both datasets supported triangulation and strengthened interpretation of the findings (Noble & Heale, 2019).

Survey

An online survey was distributed through Google Forms to participants with previous experience in camping, 4WD travel and/or vehicle-based camping. Twenty valid responses were collected. Participants were recruited through personal networks and relevant 4WD communities, using a convenience sampling approach. The survey combined multiple-choice, ranking and open-ended questions to gather both quantitative and qualitative data.

Closed questions identified patterns relating to camping behaviours, environmental conditions, equipment use, setup and pack-down, storage and organisation, comfort, and areas where existing products were perceived to require improvement. Open-ended questions enabled participants to describe personal experiences, frustrations and desired improvements in their own words. This combination allowed numerical patterns to be considered alongside the context surrounding participants' experiences.

Participants received a recruitment and participant information sheet explaining the purpose of the research, voluntary participation and intended use of responses. Consent was incorporated into the survey process, with submission of a completed survey constituting agreement to participate. No intentionally identifying personal information was collected.

Semi-Structured Interviews

Four semi-structured interviews were conducted to explore vehicle-based camping experiences and equipment-related issues in greater depth. Participants were selected to provide varied perspectives relevant to vehicle-based camping, including experience in camping retail, long-term recreational camping, remote four-wheel-drive travel, and outdoor-product development.

A consistent set of core questions was used across interviews while allowing follow-up questions to explore relevant experiences or areas of participant expertise. Discussion focused on campsite setup and pack-down, storage and organisation, environmental conditions, equipment use, recurring frustrations, user priorities, product performance and opportunities for improvement. The semi-structured format

therefore maintained comparability between interviews while allowing participants to explain the reasoning and experiences behind their responses.

With participant consent, interviews were audio-recorded and transcribed to support accurate analysis. All participants were provided with an information sheet and completed a signed consent form prior to participation.

Analysis & Findings

Survey and interview datasets were initially analysed separately before recurring patterns were compared across methods. Quantitative survey responses were reviewed using statistics produced by Google Forms. Open-ended survey responses were analysed and coded according to recurring issues and experiences in Miro. Similar codes were consolidated into broader categories, and their recurrence across responses was used to identify patterns within the dataset (Popping, 2015).

Interview transcriptions were originally reviewed and coded in ATLAS.ti and later consolidated and revised in Excel. Analysis was informed by Braun and Clarke's (2006) thematic analysis approach. Each transcript was initially reviewed to identify and annotate relevant quotations, followed by a second review in which descriptive codes were assigned (Appendix 4). Initial codes were subsequently consolidated into broader analytical categories before patterns were compared across datasets (Appendices 5-6).

Survey Findings – Quantitative Trends

The survey identified environmental conditions, shelter and setup as prominent concerns. Rain was the most frequently identified environmental factor affecting camping comfort (90%), followed by wind (55%), insects or wildlife (50%), heat (45%) and uneven terrain (45%) (Figure 7).

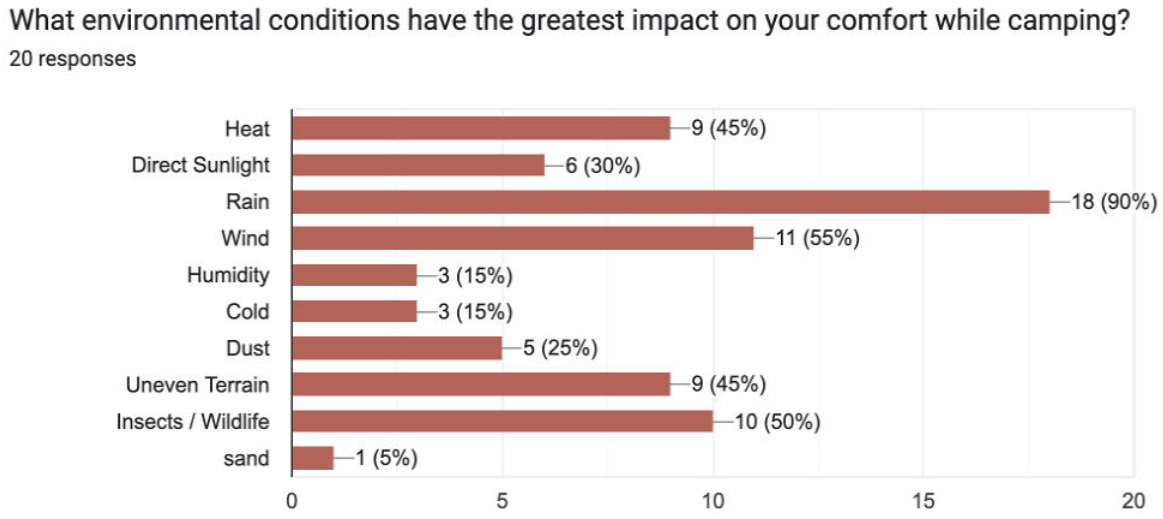


Figure 7: Survey Question 8 Responses

Shelter / Shade were the most frequently selected area requiring equipment improvement (50%), followed by Ease of Setup / Pack Down (45%) and Storage & Organisation (35%) (Figure 8).

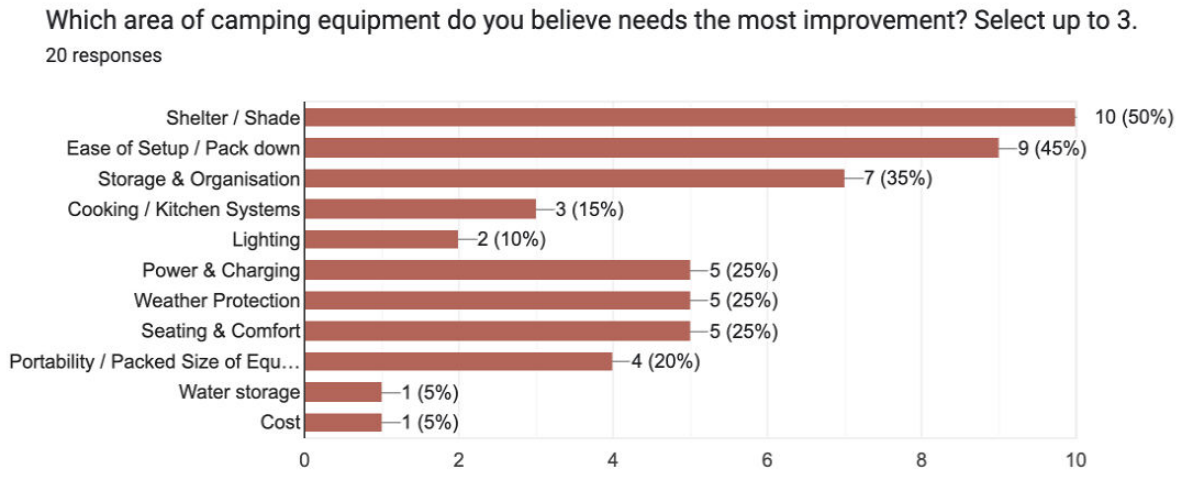


Figure 8: Survey Question 10 Responses

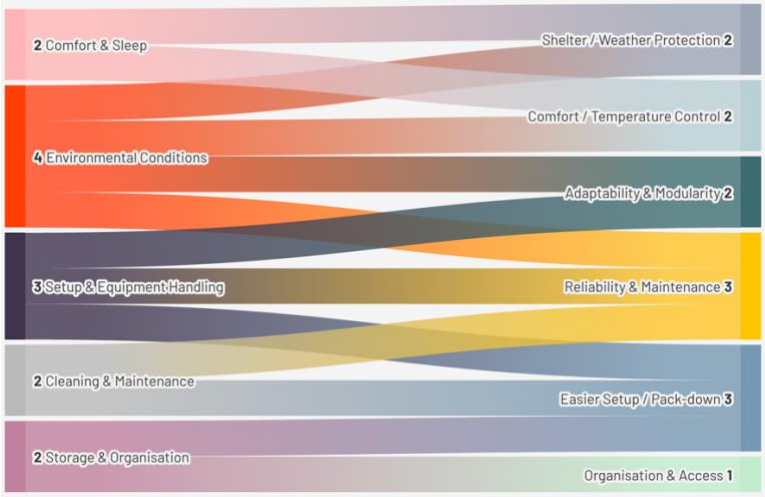
Survey Findings – Qualitative Insights

Open-ended responses provided further context to the quantitative results by showing how practical frustrations often overlapped. Setup and pack-down difficulties extended beyond time, with participants describing issues relating to equipment handling, organisation and managing wet or dirty gear. In Question 11 (Appendix 8), pack-down difficulty was coded in 13 responses, followed by organisation in 8, cleaning/drying in 7, and equipment difficulty in 6.

Organisation also recurred across several other questions. Participants described repeatedly moving, arranging and accessing gear during trips, while product modifications commonly involved additional storage, improved vehicle integration, or methods of securing and accessing gear more efficiently. This suggests that storage concerns were often associated with accessibility and organisation rather than capacity alone.

Environmental conditions frequently compounded these practical issues. Wet weather was associated with discomfort, difficult equipment handling and pack-down, while heat was linked with comfort and sleep concerns. Participants also identified unresolved needs across shelter, setup, reliability, comfort, and organisation.

Figure 9 illustrates selected co-occurrences between recurring camping problems and desired equipment improvements. The diagram highlights how environmental, setup and storage-related issues often overlapped with needs for improved shelter, comfort, reliability and organisation.



Note: Flows represent selected participant-level co-occurrences across Q9, Q11, Q12, Q15 and Q16 and do not imply causation.

Figure 9: Sankey Diagram Connecting Recurring Camping Problems with Desired Equipment Improvements Identified Through Coded Survey Responses

Interview Findings

The four interviews expanded on these patterns by explaining how difficulties develop through repeated equipment use and changing camping conditions. Setup and pack-down were frequently described as learned processes, with participants noting issues such as remembering sequences, managing multiple components, and operating equipment alone. P01 emphasised the value of simplicity, describing effective products as "*straightforward, dependable and easy to use every time.*"

Environmental conditions similarly altered how equipment was used. Heat, wind and rain affected shelter deployment, setup effort and pack-down, while wet equipment created additional cleaning/drying and storage requirements. P02 described attempting to pack wet canvas during *"severe wind and sideways rain,"* requiring additional shelter and handling before the process was ultimately abandoned. Storage discussions highlighted a similar tension between flexibility and accessibility. P02 summarised this when discussing open vehicle storage:

> *P02 – "You want the flexibility of all that open space… then it becomes frustrating when you put so much in it, you can't find anything."*

Interviewees additionally described differences in product priorities according to experience, camping style and intended use. Cost, durability, weight, comfort, portability, and flexibility were repeatedly discussed as competing considerations rather than requirements that could always be maximised simultaneously. P03 described how these priorities can change with experience, explaining that *"over time your mindset changes to 'what do I really need?'"* P04 similarly emphasised that product priorities depend on the intended user rather than a universal set of requirements.

> *P04 – "Knowing your customer and trying to understand what they want… there will be people that are not interested in what you're doing, but that's okay. Like you don't have to appeal to everyone."*

Cross-Analysis & Triangulation

Comparison across datasets showed convergence around environmental exposure, setup and pack-down, storage and accessibility, comfort and equipment reliability. Survey responses established the recurrence of these concerns, while interviews provided additional context regarding how and why these occur in practice. Interviews also introduced considerations surrounding user-specific trade-offs and changing equipment priorities that were less apparent in survey responses.

Figure 10 synthesises these areas of convergence by showing how recurring survey findings were reinforced or expanded through interview evidence. This comparison highlights that key issues identified across both methods were not isolated, but interconnected across equipment use, environmental conditions and user priorities.

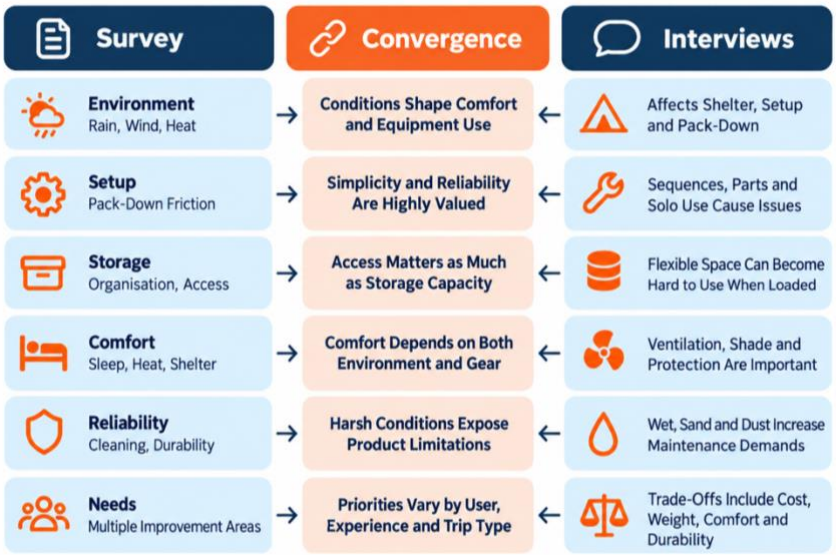


Figure 10: Cross-Analysis and Triangulation of Survey and Interview Findings

Combined Findings

The convergent findings were further consolidated into five overarching themes. These capture the broader patterns identified across the survey and interviews and provide the analytical structure for the Discussion in Section 3.



Figure 11: Five Overarching Themes Identified Through Cross-Analysis

03

Discussion

Design Implications

Conclusion

Discussion

Reduced Friction Improves Usability

Repeated operational friction appears to influence usability even when equipment remains technically functional. Benchmarking similarly showed that greater coverage, integration and functionality were often accompanied by additional structure, packed volume or setup complexity. Sullivan et al. (2021) found that assembling a tent required users to complete multiple sequential subtasks, with visual attention frequently directed toward upcoming steps, demonstrating the planning involved in seemingly routine setup activities. This supports the present findings that repeated sequences, components and handling requirements can contribute to frustration even where the product itself remains functional.

Environmental Conditions Intensify Equipment & Comfort Demands

Environmental conditions acted as an amplifier of both comfort and equipment-related difficulties. Australian thermal-comfort research identifies temperature, solar radiation, wind, and humidity as significant influences on outdoor comfort (Shooshtarian et al., 2020; Spagnolo & de Dear, 2003). The findings of this study extend this relationship into equipment use, with changing conditions affecting shelter operation, maintenance, drying and pack-down. Environmental performance is therefore relevant not only to occupant comfort, but also to the effort required to establish and maintain an effective campsite.

Storage Flexibility Can Reduce Accessibility

Storage findings revealed a tension between flexible capacity and effective access. Although open vehicle spaces accommodate changing equipment loads, accessibility can decline when gear must be stacked, moved or unpacked to reach other items. Niu et al. (2025) similarly demonstrated that organising RV spaces around patterns of user activity reduced the movement required during common tasks. Combined with the benchmarking results, this suggests that storage effectiveness depends not simply on available capacity, but on how efficiently equipment can be located and accessed during use.

User Priorities Shape Product Trade-Offs

No single combination of durability, weight, cost, portability, comfort and performance appeared appropriate for all campers. Participants instead described these priorities as dependent on camping style, intended use and experience. This aligns with Hardy and Kirkpatrick's (2017) identification of diverse behaviours and preferences among RV users, while McFarlane (2004) similarly found differences in experience, skills and self-reliance among vehicle-based campers. Interview accounts further suggested that increasing experience can shift perceived value away from feature quantity toward equipment that is better suited to a specific task or trip.

Adaptability Is Most Valuable When Kept Simple

Adaptability, modularity and multifunctionality were valued where they reduced equipment, space or effort, but became less favourable when additional components or setup stages were introduced. Bonvoisin et al. (2016) similarly found that modular product design can support objectives such as customisation but emphasised that modularisation approaches must be selected according to specific design objectives rather than treated as universally beneficial. This supports a distinction between functional adaptability and feature accumulation: additional configuration creates value only where its benefits outweigh the complexity required to use it.

Design Implications

The combined findings identify five implications for the future design of vehicle-based camping equipment. These implications establish principles that can guide concept development and evaluation against the needs identified throughout the research.

Prioritise Simple, Reliable Operation

Camping equipment should minimise unnecessary effort during frequently repeated activities such as setup, adjustment and pack-down. Designs should reduce the number of components, steps and learned sequences required for operation while remaining intuitive for both experienced and less experienced users. Particular consideration should be given to solo operation and situations where equipment must be used quickly or under difficult conditions. Added functionality should therefore be evaluated against the operational effort it introduces, prioritising solutions that achieve their intended function consistently without creating unnecessary tasks for the user.

Design for Environmental Resilience

Products intended for Australian vehicle-based camping should treat environmental conditions as part of normal operation rather than as exceptional circumstances. Heat, rain, wind, dust, sand and uneven terrain can affect both user comfort and equipment performance, while wet or dirty equipment creates additional maintenance and pack-down requirements. Designs should therefore consider weather protection, ventilation, drainage, cleanability, stability and material durability alongside primary functionality. Equipment should also remain practical to operate when conditions deteriorate, reducing the need for users to perform complex adjustments or handling precisely when environmental demands are greatest.

Maintain Accessibility Through Flexible Design

Flexible products should allow users to adapt equipment to changing activities, vehicles and trip requirements without compromising accessibility or ease of use. Storage findings demonstrated this tension most clearly, with open and adaptable spaces becoming less effective when equipment needed to be moved or unpacked to access other items. However, the principle extends beyond storage to the positioning, adjustment and configuration of camping equipment more broadly. Future designs should therefore consider how frequently used components are accessed, adjusted or

removed, with reconfigurability supporting rather than obstructing everyday interaction.

Support User-Specific Configuration

Vehicle-based campers should not be treated as a homogeneous user group. Differences in experience, vehicle type, trip duration, camping style and individual priorities influence the relative importance of characteristics such as durability, weight, comfort, portability and cost. Rather than attempting to maximise every attribute within a single product, designs should establish a clear intended user and context of use. Where appropriate, configurable systems could allow users to select functions or components relevant to their requirements while avoiding unnecessary features, weight or expense for those who do not require them.

Integrate Functions Without Added Complexity

Adaptability and multifunctionality should create measurable utility rather than simply increase the number of available features. Integrating complementary functions may reduce the quantity of separate equipment users need to transport, organise and set up; however, these benefits can be undermined if integration introduces additional components, interfaces or failure points. Future concepts should therefore prioritise functions that naturally complement one another and share existing structure, mounting points or user interactions. Adaptability should ultimately reduce equipment, space or effort while preserving straightforward operation, rather than becoming another system that requires management.

Conclusion

This project aimed to explore how emerging design approaches could improve the comfort, efficiency and adaptability of vehicle-based camping experiences in Australia. Findings from benchmarking, the survey and interviews revealed consistent challenges surrounding setup and pack-down, environmental exposure, accessibility, comfort and equipment reliability. These issues were often interconnected, with difficult environmental conditions increasing both user discomfort and the effort required to operate, maintain and pack away equipment.

The research also demonstrated that vehicle-based campers have varied priorities depending on their experience, camping style and intended use. Greater functionality or flexibility therefore does not necessarily result in a better experience, particularly where it introduces additional components, effort or complexity. Instead, adaptability appears most valuable when it simplifies interaction and responds to genuine user and environmental requirements.

From these findings, five design implications were identified: prioritising simple and reliable operation, designing for environmental resilience, maintaining accessibility through flexible design, supporting user-specific configuration, and integrating functions without added complexity. Together, these demonstrate an opportunity for vehicle-based camping products that respond more effectively to changing conditions and user needs without increasing the burden of managing equipment.

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Appendices

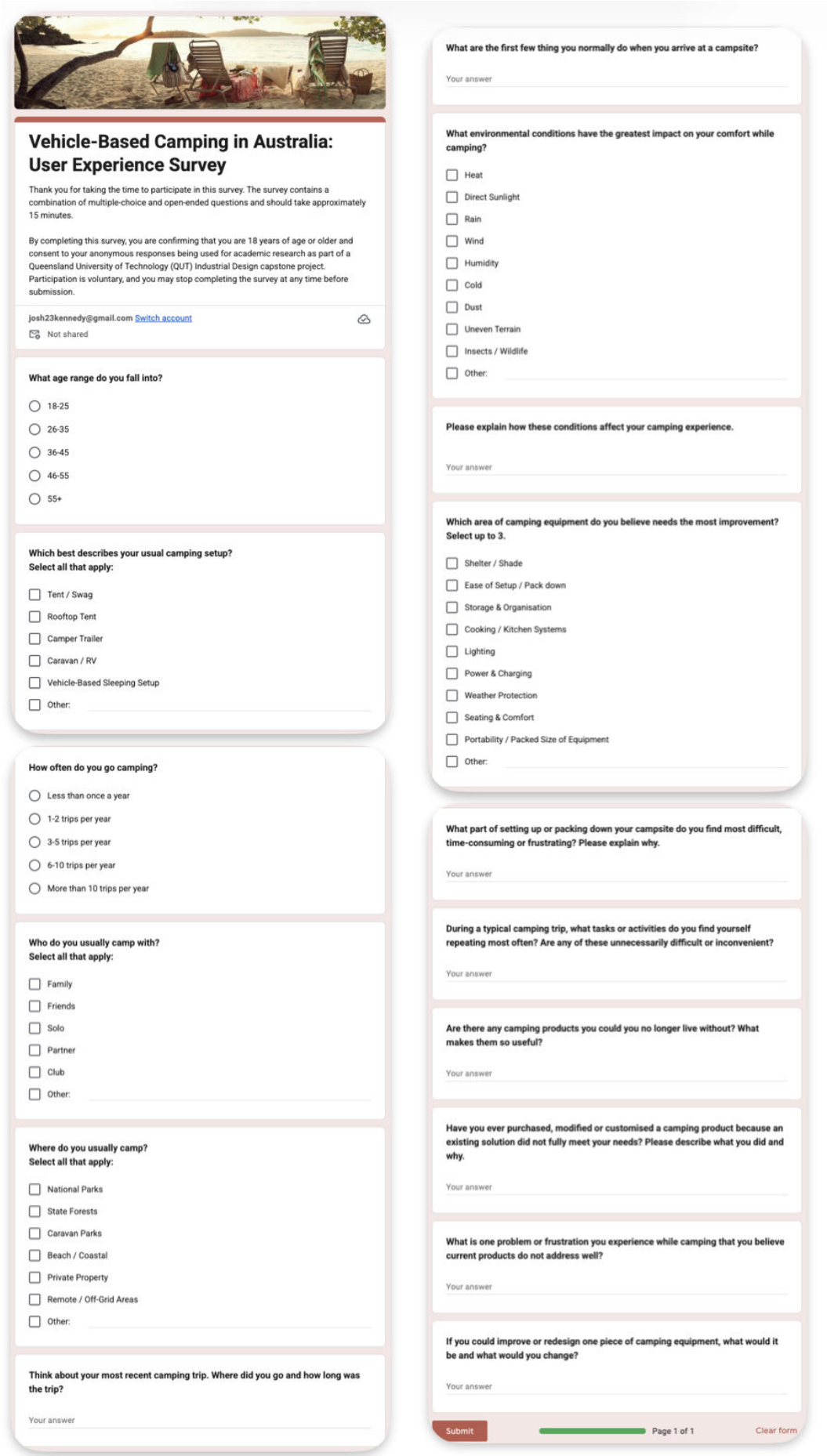
Appendix 1: Storage Product Information Grid

Product	Image	Brand	Abbreviation
Modular Vehicle Drawer System (x2)		ARB	Drawers
Ute Slide Kitchen		ARB	Slide Kitchen
Standalone Rear Roof Shelf		KAON	Shelf
Backtrack Tailgate Bag		DARCHE	Tailgate Bag
Ute Tray Mat & Tub Divider – 48-Piece Modular Pack		LocknMat	Modular Mat & Tub Divider

Appendix 2: Shelter Product Information Grid

Product	Image	Brand	Abbreviation
2x2.5m Side Awning		Kings	Side Awning
180° 2m Awning		XTM	180° Awning
Batwing 270° Freestanding Awning		Rhino-Racks	270° Batwing
Deluxe Gazebo		Oz Trail	Gazebo
Air Shade Blowup Gazebo		Quest	Air Shade
4.2 Blockout Shade Dome		Oz Trail	Blockout
Climate Changer II		Stratus Outdoors	CC II
EDGE Cassette Awning		Shade Lab	Edge

Appendix 3: Google Forms – Survey Questions



Vehicle-Based Camping in Australia: User Experience Survey

Thank you for taking the time to participate in this survey. The survey contains a combination of multiple-choice and open-ended questions and should take approximately 15 minutes.

By completing this survey, you are confirming that you are 18 years of age or older and consent to your anonymous responses being used for academic research as part of a Queensland University of Technology (QUT) Industrial Design capstone project. Participation is voluntary, and you may stop completing the survey at any time before submission.

josh23kennedy@gmail.com Switch account

Not shared

What age range do you fall into?

- 18-25
- 26-35
- 36-45
- 46-55
- 55+

Which best describes your usual camping setup?
Select all that apply:

- Tent / Swag
- Rooftop Tent
- Camper Trailer
- Caravan / RV
- Vehicle-Based Sleeping Setup
- Other:

How often do you go camping?

- Less than once a year
- 1-2 trips per year
- 3-5 trips per year
- 6-10 trips per year
- More than 10 trips per year

Who do you usually camp with?
Select all that apply:

- Family
- Friends
- Solo
- Partner
- Club
- Other:

Where do you usually camp?
Select all that apply:

- National Parks
- State Forests
- Caravan Parks
- Beach / Coastal
- Private Property
- Remote / Off-Grid Areas
- Other:

Think about your most recent camping trip. Where did you go and how long was the trip?

Your answer

What are the first few thing you normally do when you arrive at a campsite?

Your answer

What environmental conditions have the greatest impact on your comfort while camping?

- Heat
- Direct Sunlight
- Rain
- Wind
- Humidity
- Cold
- Dust
- Uneven Terrain
- Insects / Wildlife
- Other:

Please explain how these conditions affect your camping experience.

Your answer

Which area of camping equipment do you believe needs the most improvement?
Select up to 3.

- Shelter / Shade
- Ease of Setup / Pack down
- Storage & Organisation
- Cooking / Kitchen Systems
- Lighting
- Power & Charging
- Weather Protection
- Seating & Comfort
- Portability / Packed Size of Equipment
- Other:

What part of setting up or packing down your campsite do you find most difficult, time-consuming or frustrating? Please explain why.

Your answer

During a typical camping trip, what tasks or activities do you find yourself repeating most often? Are any of these unnecessarily difficult or inconvenient?

Your answer

Are there any camping products you could you no longer live without? What makes them so useful?

Your answer

Have you ever purchased, modified or customised a camping product because an existing solution did not fully meet your needs? Please describe what you did and why.

Your answer

What is one problem or frustration you experience while camping that you believe current products do not address well?

Your answer

If you could improve or redesign one piece of camping equipment, what would it be and what would you change?

Your answer

Submit Page 1 of 1 Clear form