Exploring Community Engagement at RAD Bikes

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Executive Summary

Context: RAD (Recycle a Dunger) Bikes is a not-for-profit community bike community bike recycling and repair. By providing accessible resources and education, RAD Bikes aims to address local transportation challenges and foster community engagement.

Research Question(s): This study explores two key questions: 1) What demographics does RAD Bikes currently serve, and 2) What strategies can RAD Bikes implement to reach underrepresented groups?

Summary of Methods: A mixed-methods approach was employed, combining quantitative data from surveys distributed with qualitative insights gained from in-depth interviews with volunteers and stakeholders.

Key Findings: RAD Bikes is praised for its sense of community but faces challenges in diversity and outreach. Most participants were male and New Zealand European, highlighting the need for targeted outreach to women and minority groups. Geographic reach was limited, suggesting opportunities for growth in underrepresented areas.

Shortcomings: Low survey response rates and sampling bias, due to self-selection and logistical constraints, limited the diversity of the data. Geographic representation was insufficient for a comprehensive spatial analysis.

Suggestions for Future Research: Extending survey duration, addressing logistical barriers, and employing broader outreach methods would improve data diversity and depth, enabling more comprehensive spatial and graphical analysis.

Introduction

RAD (Recycle a Dunger) Bikes is a community-

effectively. Limitations included challenges such as low survey response rates that may have introduced biases in data collection.

How Charities Increase Their Scope and Reach

Barriers to participation in cycling workshops often affect marginalised groups such as women and low-income individuals, who face issues like cost, knowledge gaps, and poor infrastructure (Leister et al., 2018; Community Cycling Centre, 2012). RAD Bikes can address these barriers through targeted outreach, particularly via social media, to reach underserved groups. Effective location planning, such as situating workshops near universities or city centres, is also important for increasing engagement, though it needs to be balanced to serve disadvantaged areas as well (Brodie et al., 2011; Valentini & Butler, 2023). Gender-specific sessions could further enhance inclusivity and reach (Batterbury et al., 2023). The identified data gaps include an emphasis on bike shares over bike workshops and a lack of research on bike workshops with less affluent reach.

Charities and Engaging Volunteers

Volunteer engagement is heavily influenced by the sense of relatedness and need satisfaction. Relatedness fosters community and volunteer retention, while meeting volunteers' needs increases motivation (Boezeman & Ellemers, 2009; Huang et al., 2019). For RAD Bikes, maintaining a diverse volunteer base is critical, and research shows that volunteer motivations are consistent across demographics, including gender (Bortree & Waters, 2014). Implementing strategies like occasional interviews allows volunteers to express their thoughts on the organisation's direction, enhancing their sense of value (Behrens & Colombelli-Négrel, 2024). However, a lack of studies into the specifics of engaging demographically diverse people, which RAD are trying to target, hinders the applicability of these findings.

Bike Repair Charities Across the World

International bike repair shop (BRS) programs provide valuable insights for RAD Bikes, particularly in their role promoting urban sustainability, social inclusion, and affordable transportation. BRSs are essential for fostering green transport and sustainable urban planning (Wesolowski, 2015). Projects like cycling kitchens teach repair skills and reduce waste, promoting self-sufficiency (Valentini & Butler, 2023). Successful BRS models have demonstrated the importance of local partnerships to reach diverse communities, which could serve as a model for RAD Bikes to enhance its community outreach (Abord, 2022; Chatillon, 2022). Gaps in knowledge include starting up Bike repair businesses in less sustainable transport centric cities.

Methodological Framework and Methods

The study used a mixed-methods approach, integrating both a range of qualitative and quantitative data, collected from interviews and surveys. This approach is shown to enhance research outcomes (Östlund et al., 2011), enabling us to address the research questions effectively.

Project-Based Learning (PBL) and Community-Based Learning (CBL) frameworks informed the research and shaped the approach to the RAD Bikes. PBL fostered a problem-solving mindset that was vital in overcoming data collection challenges, while CBL emphasised the

importance of addressing broader social, environmental, and ethical contexts in community engagement (Prince et al., 2005; Arantes do Amaral, 2018).

Data Collection Methods

The primary quantitative data for this study was collected through three separate surveys, each tailored to a different audience: the public, RAD volunteers, and RAD customers.

The surveys were created using the platform Qualtrics. Before launching, a pilot study was conducted to ensure the questions were appropriate and effective, adjusting the design to enhance validity and reliability.

Throughout the survey development process, ethical guidelines were followed and included a suitable consent form. Questions were simplified and aimed to minimise bias and avoid sensitive or invasive topics. This ensured maximum

Bike Society. Conducted in a relaxed setting, these interviews encouraged genuine responses. Lasting 5 10 minutes, the open-ended questions focused on how participants first learned about RAD Bikes, their opinions on outreach efforts, and any challenges in attending sessions.

initiative. Two face-to-face interviews were transcribed into notes, while a third was conducted via email due to scheduling constraints. The conversational nature of the interviews encouraged candid, detailed answers.

Data Analysis Methods

Survey data was exported from Qualtrics to Excel for cleaning, with incomplete or

Figure 2. Age distribution graph of volunteers and customers at RAD Bikes

Ethnicity

The customer responses also indicated a restricted reach, with only 11 participants providing their suburb information. This data showed representation from just 6 suburbs. The majority of customers were from Spreydon (3), while Linwood, Opawa, and Upper Riccarton had 2 respondents each. Ilam and the CBD contributed only 1 response each.

The public survey gained 44 responses regarding participants' home locations, yet still reflected limited geographic representation, with only 26 of the 91 suburbs noted. Riccarton had the highest participation with 6 respondents, followed by Sumner and St Albans (4 each) and Linwood (3). Five suburbs had 2 participants each, including Addington, Cashmere, CBD, Clifton, and Merivale, while the remaining 17 suburbs had only 1 participant.

Table 1. Survey participants geographic reach organised by Christchurch suburb. Left: volunteer participant's home location, Middle: customer participant's home location, Right: public participant's home location.

Figure 5. Participants discovery graph for RAD Bikes

Recommendations for Public interest

The data from Figure 6 reveals that bike repairs were identified as the most appealing aspect of RAD Bikes' offerings, with 9 responses, followed by mechanics lessons (7), bike parts (5), and supporting a non-profit organisation (2). These results suggest that while RAD Bikes is well-regarded in the community, there is room for growth in public engagement through more targeted marketing efforts, especially on digital platforms.

Yu (2024) highlights the potential for community bike shops to attract wider audiences by emphasising healthy living and promoting cycling as a means of personal and environmental well-being. Biking serves not only as exercise but also contributes to reducing car usage and

The data from Figure 7 shows that additional workshops are the most requested activity for RAD Bikes, receiving 9 responses 5 from customers and 4 from volunteers. The next most desired activities were more drop-in sessions and community events, each garnering 7 responses. Meanwhile, only 2 responses supported either establishing more permanent workshop locations or maintaining the current setup.

These findings suggest a strong demand for enhanced educational opportunities alongside cost-effective services, both critical to strengthening community involvement. Bussell and Forbes (2002), found that motivations for volunteering in non-profit organisations extend beyond altruism to include personal benefits such as social interaction and skill development. This aligns with the survey data, which highlights a need for greater accessibility and

are consistent with research by Teppner (2020), which highlights effective increased volunteer participation in cycle shops. They emphasised the importance of culturally inclusive programs to ensure volunteers from diverse backgrounds feel valued and welcomed. Establishing mentorship opportunities, where new volunteers are paired with experienced members, was also suggested to enhance confidence and skill development.

Implications for RAD

Time constraints and scheduling conflicts further reduced the research scope, affecting engagement with underrepresented communities and limiting findings applicability.

Further Research

Several opportunities exist for future research to enhance these findings. Extending the -term impact. Increasing demographic reach through signage and in-person surveys in high-traffic areas could help address data gaps from certain suburbs. Density sampling, which targets areas with diverse populations, has proven effective for capturing data from minority groups (Bm mt al., 2022).

Additionlly, incorporating more interviews and focus groups would yield richer qulitative insights. Engaging with similar workshops or programs could provide vluable l m for RAD Bikes, while focus groups would encourge discussion and facilitate dee per exploration of reFinch e, 2003).

Conclusion

The community-based l m-7(a)4(rning pr)4(ojec)6(t provid)-10(e)4(d v)-9()-3(luabl m)- insights into RAD B community engagement, identifying key diversity gaps and opportunities for improvement. RAD Bikes serves as both a practicl resource and a social hub, fostering community and skill-building. To expand its reach, it is recommended establishing additionl workshop locations, by implementing travelling workshops in underserved areas, and collaborating with local universities to attract new participants.

Survey and interview data highlight the need for targeted social media outreach, culturally inclusive programs, and mentorship opportunities to enhance engagement with underreresented groups. Increasing female volunteer representation would also promote a more inclusive environment. Partnerships with local busin mnd groups could further embed RAD in community n mk s.

Looking ahead, RAD Bike well -placed to strengthen its engagement with diverse communities, ensuring its services become more accessible and inclusive. By implementing these initiatives, RAD Bikes can enhance their role in sustainabl mnsportation, while also contributing to the development of a more cohesive and resilient community.

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. Our community partner Jess Smale

Finch, H., Lewis, J., & Turley, C. (2003). Focus groups. *Qualitative research practice: A guide for social science students and researchers, 2*, 211-242. https://books.google.co.nz/books?id=IZ3fJlD5x8gC

Garnelo-Gomez, I., & Money, K. (2024). Charity Starts at Home: Understanding What Drives Children from Economically Disadvantaged Communities to Engage in Social Action. *Nonprofit and Voluntary Sector Quarterly*. https://doi.org/10.1177/08997640241278640

Handy, S. L., Xing, Y., & Buehler, T. J. (2010). Factors associated with bicycle ownership and use: a study of six small U.S. cities. *Transportation*, *6*, 967 985. https://doi.org/10.1007/s11116-010-9269-x

Huang, Y., Bortree, D. S., Yang, F., & Wang, R. (2019). Encouraging Volunteering in Nonprofit Organizations: The Role of Organizational Inclusion and Volunteer Need Satisfaction. *Journal of Nonprofit & Public Sector Marketing*, 32(2), 147 165. https://doi.org/10.1080/10495142.2019.1589624

Jones, R., Kidd, B., Wild, K. & Woodward, A. (2020). Cycling amongst Maori: Patterns, influences and opportunities. *New Zealand Geographer*, 76(3), 182-193. https://doi.org/10.1111/nzg.12280

Appendix

Publicly Distributed Poster with Survey QR code