Article

A Research Participant and End-User Approach to Research Collaboration and Co-Development in the Torres Strait

The International Journal of Community and Social Development
4(4) 375–395, 2022

DOI: 10.1177/25166026221115581
journals.sagepub.com/home/cod

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Abstract

Like many communities worldwide, those in the Torres Strait Islands face several severe social and environmental challenges. Torres Strait Islanders compete against the impacts of colonisation, globalisation and climate change to find sustainable solutions to ensure they survive and thrive in this rapidly changing world. This article describes the outcomes of workshops involving representatives from community-based non-government organisations on Thursday Island in the Torres Strait. It describes an approach to proactively kickstart research and identify grassroots innovations for complex social and environmental challenges. The findings suggest workshop participants obtained an increased awareness and understanding of research, the steps involved in research and their rights as participants. The researchers anticipate the findings from this project will contribute towards a better understanding of how to collaborate and co-develop research that is meaningful and beneficial to local contexts.

Keywords

Torres Strait Islands, Aboriginal and Torres Strait Islander, research guidelines, research participants, end-users, knowledge translation, implementation

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Introduction

The Role of Research in the Torres Strait Islands

The Torres Strait Islands cover an area of approximately 48,000 square kilometres in Australia (Figure 1). It connects the tip of Cape York Peninsula in Queensland (Australia) to the southwest coast of Papua New Guinea and links the Coral Sea to the east with the Arafura Sea and the Gulf of Carpentaria in the west. The Torres Strait is a unique and megadiverse region (Butler et al., 2012; Department of Foreign Affairs and Trade, 2014). It acts as a bridge and barrier for biosecurity and border protection, and it is also where you will find the most intact northern extension of the World Heritage listed Great Barrier Reef ecosystem. The Torres Strait's relatively pristine marine and island environment, rich with diverse flora, fauna and endemism, contributes to Australia's international and national reputation as a globally distinct ecosystem and a key tourist destination (Department of Sustainability, Environment, Water, Population and Communities, 2011).

Evidence suggests ecosystems in the Torres Strait are depleting beyond the point of endangerment due to the impact of environmental and man-made factors such as rising sea levels, population growth, pollution and over fishing (Australian Government, 2013; Australian Human Rights Commission, 2009; Bateman, 2017; Department of Sustainability, Environment, Water, Population and Communities, 2011; Doherty & Slezak, 2017; Green et al., 2010; Huusko, 2015;

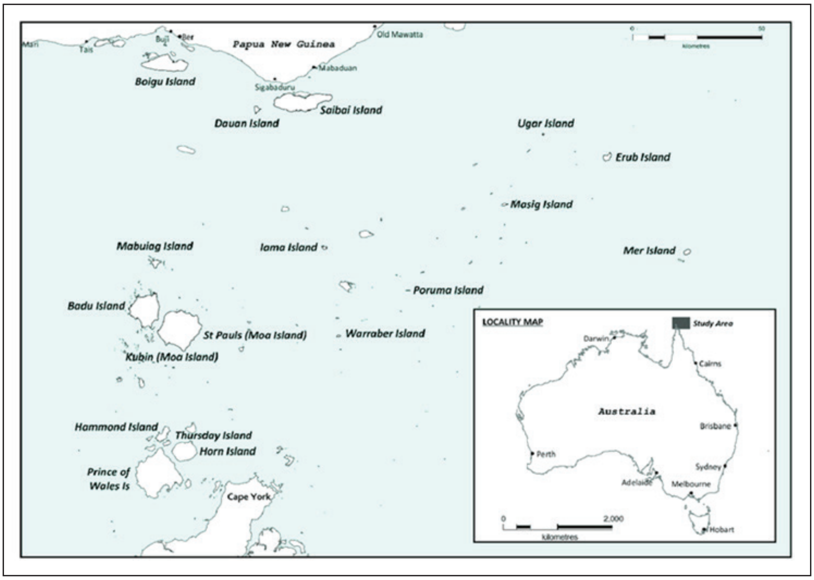


Figure 1. Map of the Torres Strait.

Source: Lawrey (2013).

Taylor et al., 2013). Options to pause further degradation or reverse some of the damage involves finding the right solutions. This requires the effective translation of experiential and research knowledge to policy and practice. However, there are several barriers to this approach such as ongoing distrust of research and researchers, the differences between how research and experiential knowledge is constructed and managed, the misfit of researcher driven knowledge mobilisation strategies, and limited local research and knowledge translation (KT) capacity and capability (Cheer et al., 2020; Sen, 2000; The Lowitja Institute & Australian Institute of Aboriginal and Torres Strait Islander Studies [AIATSIS], n.d.).

Growing Research Expertise

In 2017, a group of Torres Strait Islander researchers and community members established a Community of Practice (CoP) for knowledge mobilisation. A CoP was deemed an effective mechanism to facilitate research knowledge mobilisation for end-users, such as Torres Strait Islander communities (Barwick et al., 2009; Wenger et al., 2002). Wenger et al. (2002) define CoPs as ‘groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis’.

The Torres Strait Islander Researchers’ CoP was known as *Meriba buay—ngalpan wakaythoemamay* (We come together to share our thinking). It brought together for the first time Torres Strait Islander researchers with an extensive range of expertise from health, education, science, environment, engineering, technology, economics, social sciences, community development, KT, performing arts and visual and creative arts, management and administration, and traditional knowledge systems and practice (Cheer et al., 2020).

Using a participatory approach, the CoP found the integration of traditional or experiential knowledge with Western scientific knowledge can raise awareness about climate change and health and well-being, help manage climate-related uncertainty and reconcile global concepts of climate change such as the Paris Climate Agreement with local, place-based understanding of weather and climate (Adamson et al., 2018; Brugnach et al., 2017). Furthermore, participatory approaches supported the CoP to develop grassroots innovations to mobilise research evidence about local problems (Cheer et al., 2020).

In 2021, several members of the CoP, went on to establish the Torres Strait Islanders Research to Policy and Practice Hub (the Hub) at James Cook University (JCU) in Cairns (James Cook University, 2021). While working on two projects with community-based non-governmental organisations (CBNGOs) on Thursday Island, the Hub was invited to develop a research training workshop for people living in the Torres Strait. Several research training workshops had previously been delivered on Thursday Island to build the capability of people to do research. These workshops were facilitated by a researcher or research team visiting the community and could range from a two-day workshop, block sessions or both (Hot North, 2018). While several training initiatives had been implemented in the region, there appeared to be limited change in local CBNGO trust, awareness, skills and experience to initiate and govern research and KT for local use and benefit. This discrepancy is surprising as Aboriginal and Torres Strait Islander people have been involved in research and worked with researchers for many years (The Lowitja Institute & AIATSIS, n.d.). For example, evidence of research on the Torres Strait and Torres Strait Islanders is cited in works from the late 1800s, most notably the extensive anthropological work of the Cambridge Expedition to writings from Anglican priests and romantic novelists (Beckett, 2004). However, research involving Aboriginal and Torres Strait Islander people appeared to have primarily benefitted researchers, with limited or no research knowledge being mobilised to end users, such as individuals and communities who stood to benefit from the outputs and outcomes (Bainbridge et al., 2015; The Lowitja Institute & AIATSIS, n.d.; Kinchin et al., 2017; Sen, 2000). There is growing evidence to demonstrate when done well, research and KT can result in significant benefits and positive impacts on society (Australian Research Council, 2019; National Health and Medical Research Council, 2022).

Designing an Approach to Enhance Research and Knowledge Translation Capability

The Hub decided to address the cycle of capacity and capability gaps in research and KT. They started with KT planning and implementation planning to design and develop a training approach to address barriers to research. KT planning identifies the core elements when developing an approach to mobilise evidence from research to policy or practice (Barwick, 2008). Implementation planning defines who needs to change and what they need to do differently, understanding and mapping barriers and facilitators, and selecting the most appropriate strategies to support change (The Center of Implementation, 2022). Based on the KT and implementation planning outcomes, the Hub chose to develop and implement an interactive games-based workshop (the workshop). The workshop's key message was to develop solutions for local concerns and challenges. The KT goals were to empower individuals to

- Share knowledge and generate awareness about research and the steps involved in research,
- Share knowledge and generate awareness of individual rights and responsibilities as a participant, stakeholder, or both in research and
- Initiate behaviour changes within CBNGOs to drive and govern community-led research.

The workshop was co-developed by the project team, game designers, Boho Interactive (Boho) and pilot testing participants (Boho Interactive, 2021). Evidence-based content was sourced from the National Health and Medical Research Council (NHMRC) research guidelines, Keeping Research on Track II (KROT II) (Barwick, 2008; Cheer et al., 2020; National Health and Medical Research Council, 2018b). The content from the first two steps of the KROT II guidelines was used to design the games-based activity.

Keeping Research on Track II (KROT II) Research Guidelines

Research guidelines support researchers, research participants and others to recognise and understand an agreed course of action for a defined set of goal/s. The NHMRC, Australia's lead independent statutory agency for funding health and medical research, publishes guidelines for research and ethics. The guidelines relating to Aboriginal and Torres Strait Islander research are as follows:

- Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders 2018 (National Health and Medical Research Council, 2018a) and
- KROT II 2018 (National Health and Medical Research Council, 2018b).

The guidelines present a set of principles to ensure research is safe, respectful, responsible, high quality and of benefit to Aboriginal and Torres Strait Islander people and communities. It is anticipated guidelines will be adopted and used by researchers and ethics review bodies, such as Human Research Ethics Committees (HRECs), Aboriginal and Torres Strait Islander people, research participants and the wider community to ensure research conducted with or for Aboriginal and Torres Strait Islander people and communities, or their data or biological samples, is ethically conducted. According to the NHMRC, the ethical conduct of research occurs when harmony exists between the sets of responsibilities, participants' rights are protected, trust is maintained and mutual accountability is clear (page 11) (National Health and Medical Research Council, 2018a).

In 2017, the guidelines were reviewed and updated (The Lowitja Institute & AIATSIS, n.d.). This involved national consultations with researchers and non-researchers. Key findings suggest, although the KROT was deemed easier to follow and a better document to take to community, it appears the intended audience of the guideline, that is end users, were not aware of it. The evaluation recommended NHMRC develop a strategic approach to promote awareness, training and competence of the revised Aboriginal and Torres Strait Islander health research ethics documents.

This article presents the outcomes of workshops involving representatives from CBNGOs on Thursday Island in the Torres Strait. It describes an approach to collaborate and co-develop research for complex social and environmental challenges.

Methods

Promoting the Workshop

The Hub promoted the workshop in August 2021. The target audience included representatives from CBNGOs on Thursday Island. The workshop was promoted as a free one-day event. On-site catering was provided for morning tea, lunch and afternoon tea. Activities to promote the workshop included face-to-face meetings, distributing flyers, emails and follow up phone calls.

Delivering the Workshop

The workshop was held at the JCU building on Thursday Island in the Torres Strait from September to November 2021. Due to COVID restrictions, the maximum number of participants permitted per workshop were five people.

The workshop learning objectives were to

- Describe research and the steps involved in research,
- Describe the rights and responsibilities of research participants and
- Use tools to engage with researchers and others proactively and respectfully.

All participants received a workshop participant pack that included an excerpt of the KROT II guidelines. The workshop was facilitated by two Hub members and included a PowerPoint presentation and a games-based activity.

Workshop Games-Based Activity

The games-based activity commenced with participants inventing an imaginary community on a large piece of butchers' paper (Figure 2). Participants added words and drawings to represent important places, plants, animals and food. They drew a 12-month timeline and highlighted seasons of the year and special occasions such as community gatherings and local celebrations.

Figure 2. Workshop Participants Creating a Community as Part of the Interactive Game-Based Activity, *Grow Your Own*.

Source: The authors.

Participants were asked to work together as directors for a hypothetical CBNGO Board (the Board). The Board was allocated resources (coloured plastic balls) to represent time, money and incidental expenses. The game's objective was for participants to retain their place on the Board by working together to address and complete three activities without overspending the allocated annual resources.

This article focuses on one of the three activities. This activity started with members of the community presenting five social and environmental issues (loss of culture, climate change, financial stability, waste management and pollution, and health) to the Board. The Board was asked to address the following:

- Discuss the issues including the impact of the issues on the local community,
- Prioritise the issues,
- Select one issue and
- Determine if the selected issue requires further investigation (research) or action by following the questions outlined in the flowchart presented in Figure 3.

If the Board selected research, they could work with an external expert such as a researcher or do the project inhouse. The workshop facilitators recorded the outcomes from the Board's discussion on a whiteboard and the community map.

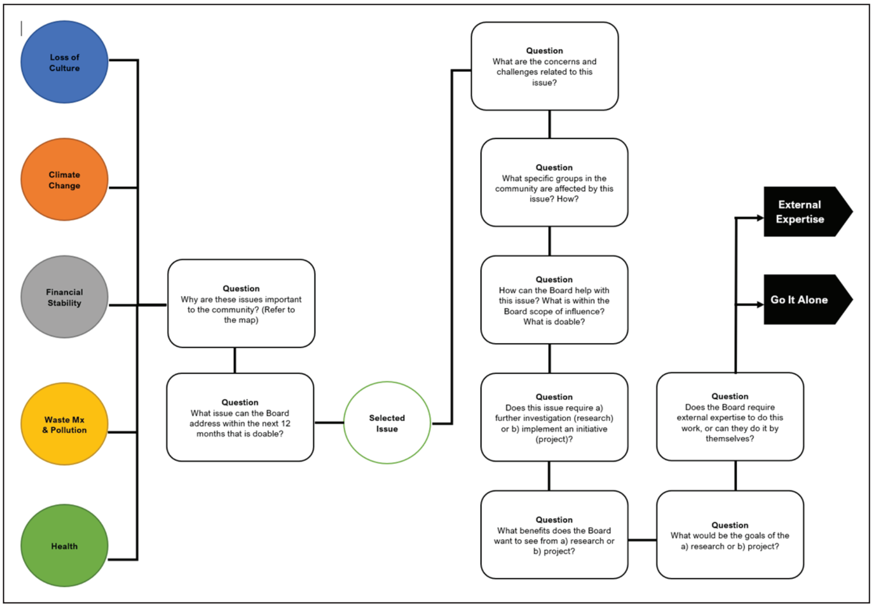


Figure 3. Subset of Questions from the Interactive Game-Based Activity, *Grow Your Own*.

Source: The authors.

Workshop Evaluation

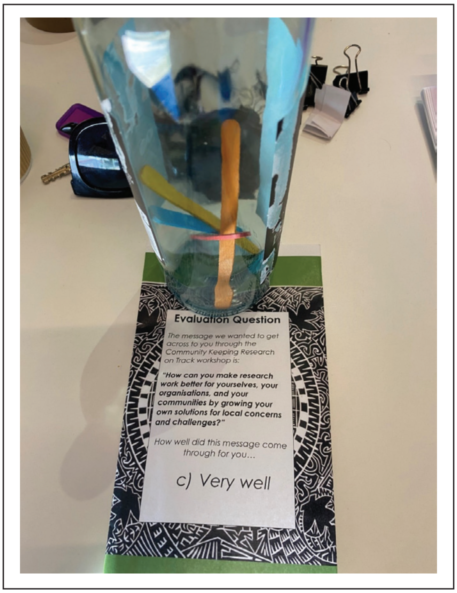
The workshop evaluation involved debriefing meetings, a questionnaire, paddle pop stick survey and interviews.

The workshop facilitators held debriefing meetings after each workshop tto discuss their observations and reflections about workshop implementation and participant feedback. The project team also monitored emails and social media feeds to record impact measures such as reach.

At the end of the workshop, participants were invited to complete a questionnaire, paddle pop stick survey and interviews. The paper-based questionnaire included nine questions. The first six questions asked participants to rate the workshop from 1 (strongly disagree) to 5 (strongly agree). The remaining three questions were open-ended questions about what worked well, what did not work well and suggestions for improvement to the workshop.

For the paddle pop stick survey, participants were given one paddle pop stick. Participants were asked to place the paddle pop stick in a bottle that best represented their response (not very well, quite well, very well, unsure) to the following question:

The message we wanted to get across to you through the Community Keeping Research on Track workshop is how can you make research work better for yourselves, your organisations, and your communities by growing your own solutions for local concerns and challenges. How well did this message come through for you? (Figure 4).



Evaluation Question

The message we wanted to get across to you through the Community Keeping Research on Track workshop is:

"How can you make research work better for yourselves, your organisations, and your communities by growing your own solutions for local concerns and challenges?"

How well did this message come through for you...

c) Very well

Figure 4. Paddle Pop Stick Workshop Evaluation.

Source: The authors.

All participants were invited to be interviewed. The questions were:

1. Please tell us about yourself and
2. What did you think about the workshop?

Ethics Approval

Ethics approval was obtained from the JCU HREC (Approval Number: H7710).

Data Analysis

Quantitative data was reviewed and cleaned. Data was entered into tables and analysed using descriptive statistics such as frequency and range. This included data about the number of workshops, number of participants and responses to the paddle pop stick survey.

Qualitative data was collated from planning activities, observations, open ended questions and interviews. Data was analysed by identifying themes and grouping similar themes to inform key findings. The project team referred to the consolidated framework for implementation research (CFIR) to organise discussion points and comments about the implementation setting and the interventions (Damschroder et al., 2009).

Results

Characteristics of Participants

The Hub completed three of four workshops on Thursday Island between September 2021 and November 2021. A total of 13 people from 6 CBNGOs participated. Of the 13 participants, 5 participants held Board of Director roles and 1 participant was employed by a national Aboriginal and Torres Strait Islander organisation. Participants ages ranged between 40 years and 70 years. Of the group, there was 1 male and 12 females.

All participants were from CBNGOs that were governed by a majority Aboriginal and Torres Strait Islander board. The core business of the CBNGOs ranged from aged care advocacy and support, media, and social and family well-being support.

At the commencement of the workshop, most participants appeared interested, excited and curious. All participants engaged in the activities and provided feedback.

Table 1. Summary of Outcomes to Questions from the Interactive Game-Based Activity, Grow Your Own.

Workshop	Selected Issue	Concerns & Challenges	Target Audience	Benefits and Impacts	Type of Support Identified	Board Recommendations to Researcher
1	Health	• High number of people with chronic disease • High number of people dying • People dying young • Don't know what are the problems and how big is the problem? • Loss of culture affecting people's social and emotional well-being • Drug and alcohol dependency • High rates of sexually transmitted infections • Limited awareness of programs • Programs are short term • High cost of living • Lack of facilities • Vulnerable groups: know it all; lack of social and parental support; no role models; lack of interest; lack of education	Families	• Education program to see an increase in awareness and understanding about good nutrition and exercise • Tailor initiatives to support people to access programs	Research & external expertise	• Follow cultural protocols • Guided by the Board on the whole approach • Board to provide a key contact person for the researcher to work with • Board will decide the best people to talk to • Board ownership of the process • Principles to include recognition, confidentiality, respect, partnership
2			Young people	• Create innovative communication strategies to meet the needs of these groups such as social media, local radio, champions		
3			Unemployed and vulnerable groups	• Tailor initiatives to support people to be more aware of health programs • Create innovative communication strategies to meet the needs of these groups • Engage the right groups are in initiatives		

Source: The authors.

Games-Based Activity Outcomes

As shown in Table 1, the issue selected in all three workshops was health. The concerns and challenges related to the issue were similar across all three workshops. Different target audiences were selected by participants in each Workshop group: Workshop 1 selected families, Workshop 2 selected young people and Workshop 3 selected unemployed and vulnerable people. The benefits and impacts proposed by participants focused on improving the awareness and understanding of audience groups about local health initiatives and programs. Participants' suggested implementation activities needed to engage the right groups and should be tailored to fit local context for example use of local radio with social media and local champions; activities to engage the right groups in initiatives and tailor initiatives to fit the local context. All participants opted for the issue to be further investigated by research and for an external expert to undertake the project. All participants recommended researchers follow and adhere to principles and guidelines such as cultural protocols and ethical principles of respect, ownership, and confidentiality.

Questionnaire Responses

Eight of 13 questionnaires were completed. As shown in Figure 5, most participants agreed with the proposed questions. Participants also provided the following positive responses:

> Response 1: Great thinking outside of the box ideas. Practical hands on and very culturally appropriate. Loved the local island facilitators. Strong, deadly women inspiring others.
>
> Response 2: Interactive.
>
> Response 3: Necessary for Board members to understand.
>
> Response 4: Really educational and informative.
>
> One participant added,
>
> My CEO did not send on the invitation to attend which was disappointing.

Paddle Pop Stick Responses (Figure 2)

All 13 participants placed a paddle pop stick in one of 4 bottles. The message we wanted the workshop and games-based activity to mobilise was, how can participants make research work better for themselves, their organisations and communities by growing your own solutions for local concerns and challenges. All 13 participants selected very well.

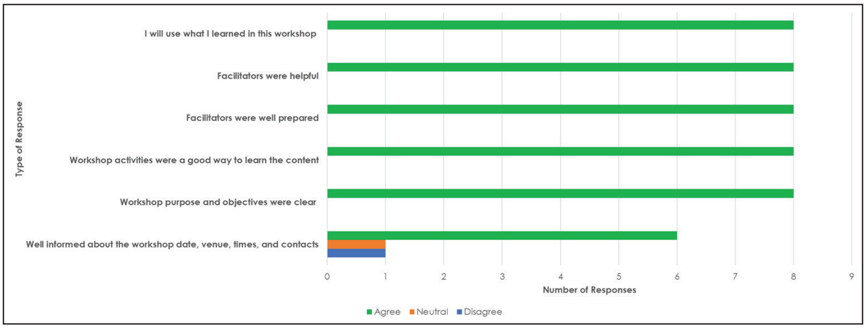


Figure 5. Community Keeping Research on Track Workshop 2021—Participant Responses to Evaluation Questionnaire ($N = 13$).

Source: The authors.

Interview Responses

Eight of 13 participants agreed to be interviewed. Interview findings suggest there was ongoing frustration with researchers and the research process.

> Interviewee A: As far as I can remember we are one of the most researched people in the world. Research sometimes is a scary thing to a lot of people because we're tired of being researched.
>
> Interviewee B: The other thing too was just on working with other universities and researchers. There have been times where we didn't receive feedback. These were the things we've learnt over time because of our inexperience.
>
> Interviewee C: I see a lot of researchers and projects that ask us to be involved as consultants as community members, but they never give back. They never show us what the report is about. They never share their evaluations, and they also don't pay community members to be involved.

In terms of the workshop, one participant said they were curious about the workshop and didn't know what to expect.

> Interviewee D: Well, I was ready for the unexpected. Whatever it was. When she said we're going to play games, I was thinking I wonder what type of games we're going to play.

Most participants suggested the workshop approach was creative, fun and engaging.

> Interviewee E: I've sort of had my own thoughts around research but to actually come and get involved with the activities, that was quite interesting made you look at things differently, especially working on research projects and I suppose how important it is to make the right decisions but of course, everyone having input into those decisions as well.

> Interviewee F: As we were exploring from what the concept was going to be, getting everyone's bits and pieces about building this project and then their input and different people's ideas. Taking on the role of different characters and making it a fun thing.
>
> Interviewee G: Personally, I found it was great. The role playing, we were able to express ourselves in our own ways—still within our guidelines of respecting each other…I'm one of those peoples when I saw the consultants and facilitators were getting at was spot on.
>
> Interviewee H: It's different from just sitting around and listening and learning because that's not how you learn. You don't learn by information. You learn by actually doing things, learning through engagement.

Participants also shared comments about the proposed benefits of the workshop to the wider community.

> Interviewee B: As a Board member, I can see the importance and why Board members or management committee members or directors should do this training. This is important for us to sit down and get our heads around and understand research, especially when you're going to be entering into contractual agreements.
>
> Interviewee C: The project Grow Your Own really gave me some good insight about actually pushing back a little bit and saying we want to know more we want to see the result we want to be involved and actively involved as well.
>
> Interviewee G: I thought it was great and I wish this program all the best because it's going to benefit my people.

Discussion

Our intent was to describe an approach to better understand how researchers, research participants and end users could collaborate and co-develop research that is meaningful and beneficial to local contexts. As shown, we successfully designed, developed and implemented three workshops and engaged participants from several local CBNGOs. The findings suggest we achieved our learning objectives of sharing knowledge and generating awareness about research and initiating behaviour change in terms of decision-making and governance of research. An unintended workshop achievement was the identification of grassroots innovations and a keenness to progress these ideas within CBNGOs, to progress these ideas within their respective organisations.

We recognise there are many contributing factors to enhance how research participants and end-users could collaborate and co-develop research ideas that are meaningful and beneficial in local contexts. This article will attempt to present and discuss factors based on the findings and experience from this project and where possible from the research participant and end-user perspective.

Enhancing Awareness and Understanding

The guidelines referred to in this article were designed to help researchers, research participants and end-users to conduct safe, respectful, responsible and high quality research that is of benefit to Aboriginal and Torres Strait Islander people and communities (National Health and Medical Research Council, 2018b). The guidelines do this by providing information about research to support individuals to better understand and engage with the process. However, for this act to be successful, research participants and end-users must have an awareness and understanding of the following: what research guidelines exist, which guidelines are relevant to the proposed activity, what do the contents mean, how do you use this information and so on.

Participants in our workshop were not aware of the KROT II guidelines. Our findings are not new. As mentioned earlier, the evaluation of the NHMRC guidelines in 2017 showed the KROT was deemed easier to follow and a better document to take to community however, people were not aware of it (The Lowitja Institute & AIATSIS, n.d.). The evaluation suggested several strategies to improve the uptake of the KROT guidelines. We are unable comment on the progress and outcomes of those recommendations. In our case, each workshop participant was given a workbook that included an excerpt of the KROT II guidelines and a link to the NHMRC website.

Further to increasing awareness of the guidelines, we also wanted to enhance participants understanding of research, the steps involved in research and their rights and responsibilities as research participants (refer to workshop learning objectives). During the design and development phase of the games-based activity we found two limitations in drawing on the KROT II guidelines. First, the absence of definitions for terms such as ethical conduct and research benefit. We believe definitions are important to support us to clearly communicate, understand and conceptualise a topic. Particularly in contexts were English is a second or third language. As mentioned, the intent of these guidelines is to ensure the ethical conduct of research. The importance of research being ethical is evident as this term appears throughout the guidelines. Ethical conduct is described as when there is harmony, protection of rights, trust and accountability. (National Health and Medical Research Council, 2018a). This description does not clearly describe—from whose perspective—the researcher or the participant? The description also excludes research benefit and impact. The absence of agreed upon definitions contributes to goal ambiguity. Based on the described limitations, our project team adopted the NHMRC description of ethical conduct in combination with the broad definition proposed by Bainbridge and Tsey (Bainbridge et al., 2015; Tsey et al., 2016). We also tabled terms with workshop participants and provided opportunity for participants to define and discuss the terms based on their contexts.

The second limitation was in framing guideline content. This guideline was designed to support research participants, Aboriginal and Torres Strait Islander people and communities (National Health and Medical Research Council, 2018b). However, guideline statements appeared to be written from the perspective of the researcher. For example, *researchers…to show that Aboriginal and Torres Strait Islander organisation or community involved feel that research is needed…* (p. 22) and for researchers with little or no experience of working with Aboriginal and Torres Strait Islander peoples and communities *'researcher is able to show… how the research will benefit…'* (p. 24). Our findings are not new. Tsey and others suggest when academics talk about research benefit and impact, they refer to publications and conference presentations. When Indigenous people talk research benefit and impact, they refer to ethical positions and 'tangible' benefits such as responses and solutions to issues studied in research projects that are meaningful to their lives (Bainbridge et al., 2015; Tsey et al., 2016). Shibasaki et al also showed how several KT models and frameworks were based on a researcher's point of view and very few KT models and frameworks were framed from the perspective of the knowledge user (Shibasaki et al., 2019).

It is easy to slip between perspectives. For example, the project team held multiple roles in this project: researchers, project team members and Torres Strait Islanders. During the project there were several points where we had to pause, examine our bias and reframe our perspectives. To overcome our bias, we drew on independent expertise such as employing a game-designer to create the game, *Grow Your Own* and piloting the workshop with non-researchers from the local region. We also monitored and evaluated the workshops for quality improvement purposes.

Opportunity to Trial

As mentioned, while guidelines present information to better understand research, there uptake and use by target audiences must be informed by KT and implementation planning. The terms KT, knowledge exchange, knowledge transfer, knowledge integration and research utilisation are used to describe overlapping and interrelated research on putting various forms of knowledge, including research, to use (Estabrooks et al., 2006; Graham et al., 2006; Mitchell et al., 2010; Nilsen, 2020; Rabin & Brownson, 2017). KT is (based on the World Health Organisation's adapted definition of the Canadian Institute of Health Research's definition) 'the synthesis, exchange, and application of knowledge by relevant stakeholders to accelerate the benefits of global and local innovation in strengthening health systems and improving people's health' (Pablos-Mendez & Shademani, 2006). Implementation is the process of putting to use or integrating new practices within a setting(Greenhalgh et al., 2004; Nilsen, 2020; Rabin & Brownson, 2017).

The Hub drew on KT and implementation planning to inform their approach. Based on these outcomes, the Hub developed a multifaceted approach whereby training workshops was one of several strategies. Other strategies implemented as part of this project included a needs assessment, pre-site visits and meetings, co-opting champions for example - opinion leaders and designing an interactive games-based activity. A training workshop and an interactive games-based activity were deemed suitable strategies as they addressed identified barriers such as lack of interest, resistance to change, lack of familiarity with the facilitators and distrust of the research process. These strategies also supported research participants and end-users to work with each other, to trial hypothetical scenarios, to learn from one another and to bring together research and experiential knowledge sources to generate local solutions to complex social and environmental issues. However, this approach was resource intensive.

It required funding, time and people. These resources were difficult to find and secure. This lack of investment in KT and implementation strategies is not new (Tsey et al., 2016). For example, funding for this work was not attached to a research project grant. It was a time limited one-off grant allocation. Furthermore, funding for this work did not cover expenses such as backfill for workshop participants. Although workshop evaluation findings were positive and suggest our approach may be beneficial for other communities and larger groups, there is no ongoing funding for spread and scale.

Enhancing Trust in the System and Process

While access to ongoing locally based opportunities encourages individuals to participate in research, an individual's participation may be overshadowed by their own experiences, beliefs, perceptions, motivation and so on. As reflected in the interview findings, there were feelings of fear, inexperience and distrust about research. Changing an individual's beliefs and emotions is complex particularly if research practice continues to be of poor quality and of limited local benefit.

Research involving Aboriginal and Torres Strait Islander people has undergone significant transformation as demonstrated by the emergence and endorsement of national ethical principles, grant criteria and policy (National Health and Medical Research Council, 2018a, 2018b; The Lowitja Institute & AIATSIS, n.d.). Tsey et al. suggest this transformation, known as Indigenous research reform, has focused predominantly on process issues and more recently on benefit (Tsey et al., 2016). It is positive to know changes are being made to better support researchers. It would equally be worthwhile to invest in change for the research participant and end-user.

Research, like KT, is a social process. It occurs in a research context and an experiential context where participants and end users have different perspectives and experiences of research based on individual life experiences, values, cultures and beliefs. As such, guidelines for the ethical conduct of research should also be framed from the perspective of the research participant and end-user. As Nakata highlights, Indigenous research protocols and guidelines seek to uphold and protect Indigenous rights and interests while facilitating cross-cultural engagements at the intersection of scientific and Indigenous understandings and practices (Nakata & Nakata, 2011). As such, research protocols should facilitate the conduct of researchers' engagement with Indigenous people, to avoid harm and risk, and to provide codes of practice that work towards ensuring research is considered in terms of benefits for Indigenous peoples, communities and their knowledge.

Furthermore, grant funding should be reviewed to ensure funds are equally invested to implement the following KROT II steps: building relationships (Step 1), developing the research idea (Step 2), sharing and translating results into action (Step 7) and learning from experience (Step 8). Finally, given the ongoing criticisms of research policy and practice, a system of accountability is needed to monitor quality, benefit and impact as it pertains to the research participants and end-users.

Limitations

There were several limitations in our project. First, our sample size was small—there were a total of 13 participants and all participants were in one remote community. As such, the findings from this pilot may not be representative of the broader CBNGO audience. Timing and timeframes were also a limitation. The project had to be completed in 6 months during COVID-19. This meant the game designer had to meet and consult on the project via online meeting platforms and could not participate in any of the face-to-face trials.

Conclusion

Standards, statements and guidelines, like the KROT II, are a positive start to raising awareness about research best practice. With the right capability, opportunity and motivation, it is possible to empower research participants and end-users to embrace research to address local issues and develop grassroots innovations for local return of benefit and impact.

These recommended changes are not new. The first version of the KROT was published in 2005. Seventeen years later (2021–2022) research continues to be initiated by the external researcher with limited to no return of investment to the local community. There may be several reasons for the limited uptake of recommendations. Recommendations may not fit with the context of the research environment. They may require a fundamental shift in power dynamics. They may lengthen project time-frames. Finally, adopting recommendations may also require an increase in investment that goes beyond conference presentations and journal publications and may not contribute to international impact factors or individual track record.

So, what are the options for research participants and end-users? One option is to wait and hope research practice will change to fit with local needs and contexts. This may take a further 17 years. Another option is to train individuals in the community to become researchers—this will also take time and investment. Alternatively, local communities and end-users can radically transform the status quo of research practice by enhancing local capacity and capability to oversee and govern the process such as identifying the issues, setting the agenda, identifying the benefits to be returned to the community and so on. Furthermore, at the systems level, it would be beneficial if national agencies were willing to also invest resources in local communities to ensure these initiatives are implemented with positive impact.

Acknowledgements

All authors gratefully acknowledge the support of the Australian Institute of Tropical Health and Medicine (AITHM), Menzies School of Health Research HotNorth and representatives from the CBNGOs on Thursday Island, and Boho Interactive.

Declaration of Conflicting Interest

The authors declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the Australian Institute of Tropical Health and Medicine, Menzies School of Health Research (HotNorth) and Australian Research Council Discovery Indigenous Grant (IN190100061).

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