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## Boundary-Spanning in Disaster Risk Reduction and Recovery through Solution-Focused Coaching Approach

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### Abstract

Universities must forge new links, form coalitions and facilitate engagement with local stakeholders to reduce future natural disaster impacts. This paper introduces a conceptual framework and key features of an integrated model of boundary-spanning strategies and solution-focused coaching (SFC) approach in disaster risk reduction and recovery (DRRR). The model is based on stakeholders' strengths, relationship-building. It is a goal setting approach in DRRR that uses boundary spanning strategies to empower multi-stakeholders in envisioning a more resilient community in the face of future disaster. Through stakeholders-community boundary spanners collaborations, DRRR shared goals and plans are co-produced.

Keywords: Boundary-spanning, solution-focused coaching, disaster risk reduction and recovery

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### 1.0 Introduction

Natural disasters destroy infrastructure and homes, displaces residents and disproportionately affect poor people. While the emphasis is that disaster can create a vicious cycle of harm encompassing social inequality, poverty, vulnerability and disaster impacts, exactly how and when these factors are linked via vicious cycles remains under-researched. Strategic collaborative efforts will be necessary to break the vicious cycle and reduce disaster risks but are likely to be complicated because actors and institutions have competing interests, beliefs and values (Mahbawi & Nakamura, 2020).

Universities are recognised as critical stakeholders in local-level engagement activities and resilience-building processes. Due to the multidimensional and complexity of disaster and development work, universities will unlikely work together on a straightforward, linear disaster risk reduction, recovery and development. Sedlacek (2013) emphasises universities' facilitative and mediating functions as well. The author contends that colleges must collaborate with societal and political actors to develop knowledge by "bridging the gap" between various actors. As a result, the author sees universities primarily as 'bridging institutions,' initiating and facilitating engagement across the region's many social and economic sectors. Similarly, Trencher et al. (2014) claimed that universities no longer transmit information to regional players or advise regional decision-makers, but rather endeavour to co-create knowledge with stakeholders.

It is increasingly vital for university actors to have boundary-spanning training and skills to work across boundaries and collaborate with various stakeholders in community-centred educational and research work. Although a community-centred curriculum promotes community well-being, empowerment and participation, addressing the community root cause of problems, there seem to be few instructions as to how to involve student boundary spanners, communities and stakeholders the most effective way to accomplish these

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goals. A conceptual framework for solution-focused coaching (SFC) in disaster risk reduction and recovery (DRRR) is proposed in this paper. The framework combines boundary spanning practices with principles of solution-focused coaching to engage stakeholders in university-community DRRR partnership projects. The term “stakeholders” may include sector ministries and departments, regional and local governments, NGOs, community members, private sector partners, service providers and non-governmental implementing agencies, civil society organisations, and international agencies.

The purpose of this paper is to give the assumptions and reasons SFC can be integrated into DRRR and provide a conceptual basis for practical application in real world setting. The author is not aware of any study that presents a framework of SFC to facilitate knowledge exchange across groups to understand boundaries and foster greater collaboration across boundaries in DRRR. In the following sections, we examine the solution-focused approach and how SFC and boundary spanning practices has promising potential to support DRRR planning and implementation. Following that, we will present the SFC-DRRR model.

### 1.1 Solution-Focused Coaching and Boundary Spanning Practices: Exploring Transdisciplinary Collaboration in DRRR

Coaching is helping to develop ‘transdisciplinary’ minds and has the potential to support sustainability and transdisciplinary practitioners working in collaboration with other stakeholders (Velencei et al., 2016). Transdisciplinary research and practice are defined by Stokols et al. (2013) as “integrative processes in which scholars and practitioners from both academic disciplines and non-academic fields collaborate to develop and use novel conceptual and methodological approaches that synthesise and extend discipline-specific perspectives, theories, methods, and translational strategies to produce innovative solutions to societal problems”. There is increasing recognition of transdisciplinary approaches that transcend the normal boundaries of a discipline to ensure that all necessary knowledge from all relevant fields and actor groups with interest in DRRR are included.


The strategies provided by the coaching approach promises a viable alternative to the traditional top-down approach in DRRR that integrates local knowledge, transdisciplinary and stakeholder participatory bottom-up approaches. Professionals confronted with these wicked problems are often required to engage in continuous, responsive communication with a diverse range of stakeholders, co-creating novel solutions that may deviate from their traditional approach. In contrast to fixing problems, coaching is aimed to harness stakeholders' strength in the area of DRRR (Bachkirova, 2012). They capture two orientations in coaching: fixing problems versus harnessing strengths. In contrast to problem-oriented interventions that focus on identifying and solving problems or challenges concerning challenges and barriers to DRRR, coaching aims to create a future-focused collaborative conversation that empowers stakeholders and support rural communities marginalised from the decision-making process.






Powell and Yuma-Guerrero (2016) examined a solution-focused approach in supporting community health care workers after disasters who had the dual stresses of directly experiencing the disaster and providing care to victims. The researchers found out that while the workers were working towards organisational goals and mission, they sometimes experienced burnout and learned that others were experiencing similar stress, which helped them work together to devise healthy coping strategies. Themes related to solution-focused that was noted in the study were a focus on disengaging from problems (burnout), an emphasis on constructing and moving towards solutions and the activation of resources (devised coping strategies) and goal orientation (organisational goals and mission).

A further benefit of solution-focused approaches is that the adopted practices can positively impact the community and their resilient future, as university actors gain knowledge about communities and help contribute to their mutual benefit. The community boundary spanners work collaboratively with community partners and stakeholders to identify needs, assets, and strategies to create an effective recovery intervention that focuses on capacity development, coordination and information management. Research has found that boundary spanners are proficient communicators, empathetic, able to value others and respect differences (Goodrich, 2020). There is a lack of training programmes for boundary spanning skill building which will lead to low stakeholder co-production of DRRR interventions. A relational, strength-based training such as SFC approach can aid boundary spanners to engage stakeholders in “willing-cooperation”. The benefits of solution-focused coaching and boundary spanning practices are summarised in Table 1.

Community boundary spanners connect marginalised people with agencies to build trust, increase community participation and social cohesion in recovery. A network is a self-organizing and typically informal governance system in which diverse actors collaborate across organisational levels to understand communities' DRRR needs, and potential solutions are then integrated to create an innovative and visionary action plan. Community self-organisation reorganises itself after a disaster, reassigning priorities and using existing organisations and networks for new purposes. The boundary spanner role is to manage the interface across the community-government boundary and their environments (Van Meerkerk et al., 2013). In the aftermath of the Great East Japan Earthquake 2011, boundary spanners facilitated transdisciplinarity by connecting neighbourhood associations with government organisations to share information, foster collaborations and build trust in rebuilding homes and infrastructures (Nakao, 2017). Thus, transdisciplinarity is a social process of collaborative problem solving and mutual learning among stakeholders that spans different boundaries and disciplines of knowledge (ESCAP, 2018).

Table 1. Benefits of integrated solution-focused coaching and boundary spanning practices.

Critical features of solution-focused coaching	Boundary spanning practices	Benefits of integrated solution-focused coaching and boundary spanning practices
1. <b>Stakeholder-oriented relationship: stakeholder-centred, strength profiling, creating the relationship</b>	<b>Buffering</b> Groups and individuals 'build a buffer' to define who they are and how they are involved and 	The participation of the community and stakeholders can be strengthened.

<p>Identify stakeholder groups, individuals and clarify their roles and responsibilities.</p>	<p>who to communicate with before, during and after a disaster.</p>	<p>Engage and develop strong working alliance with stakeholders.</p>
<p>Evaluate resources, strengths and weaknesses of organisations, communities in DRRR.</p>	<p><b>Reflecting</b></p>	<p>Understand boundaries and foster respect.</p>
<p>Use safe space and engagement methods and processes that demonstrate appropriate language skills, cultural sensitivity and inclusion of marginalised groups.</p>	<p>Understanding boundaries through listening to other stakeholders' viewpoints and respecting differences and similarities.</p>	
<p><b>2. Developing a shared vision: pre-disaster and post-disaster preferred future, identification and analysis of need and vulnerabilities of communities, solution-focused.</b></p>	<p><b>Connecting</b></p>	<p>Develop trust between community and government, create a sense of ownership of recovery plans and decision-making process, integrate perspectives of different recovery agencies.</p>
<p>Assess hazard exposure, disaster risks, vulnerability, strength and capacity.</p>	<p>Link people and bridge divided groups to suspend boundaries and build intergroup trust.</p>	
<p>Focus on the community's present local recovery needs, vulnerabilities, capacities and to find solutions to future anticipated problems and reduce future risks.</p>	<p><b>Mobilising</b></p>	<p>Co-design of stakeholder engagement materials, process, communication and delivery of outcomes.</p>
<p>Use of dialogue and boundary objects to explore processes in DRRR planning.</p>	<p>Craft common purpose and shared identity across groups to reframe boundaries and develop intergroup community.</p>	
<p><b>3) Goal setting: strength-based execution, collaborative joint action</b></p>	<p><b>Weaving</b></p>	<p>Create opportunities for disaster risk reduction, promote economic and social development, upgrade living conditions, physical assets and build back better in post-disaster reconstructions.</p>
<p>Co-construct shared goals and plans that build on core values and existing stakeholder's strength, social capital and local leadership.</p>	<p>To interlace borders and increase intergroup interconnectedness, draw out and integrate group diversity into a broader whole.</p>	
<p>Collaborate to strategise goal achievement in DRRR, sustainable development and livelihood after a disaster.</p>	<p>Empowerment - enhanced trust and communities' DRRR.</p>	
<p><b>4) Plan implementation and capacity building</b></p>	<p><b>Transforming</b></p>	<p>Opportunities to bring stakeholders together to create operational tasks for mobilising, deploying, and coordinating resources and individuals assigned to implement pre- and post-disaster rebuilding initiatives.</p>
<p>Plan and implement the recovery process that needs to consider the local context, characteristics, social attributes of the local communities.</p>	<p>To bring multiple groups together in emergent, new directions to cross-boundaries and enable intergroup reinvention.</p>	

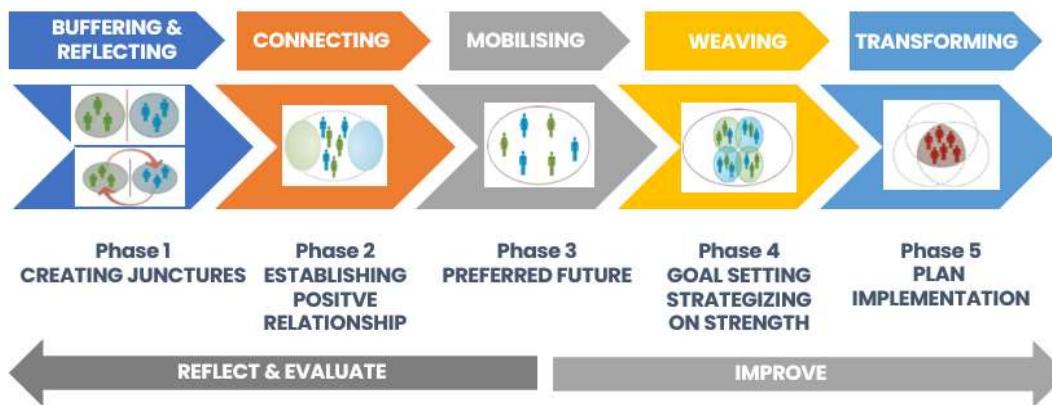
(Pictures source:Palus et al., 2012)

## 2.0 A Solution-Focused Coaching for Disaster Risk Reduction and Recovery

The SFC-DRRR framework shown in Figure 1 depicts a sequential coaching process that motivates stakeholders to translate across differences and boundaries to create new, shared goals that enhance the DRRR resilience of the local communities by strengthening and

expanding the connection of stakeholders involved and meeting the needs of disaster victims. The solution-focused coaching model consists of five phases and are supported by continuous action and reflection cycles to evaluate the effectiveness of the coaching

Fig. 1. Integrated model of boundary spanning practices and solution-focused coaching in DRRR



process through tracking goal attainment and empowering communities' resilience: 1) creating junctures - buffering and reflecting 2) establishing a positive relationship between stakeholders - connecting 3) developing a preferred future - mobilising 4) goal setting and strategising based on strength - weaving 5) plan implementation - transforming.

### 2.1 Phase 1 Creating Junctures – Buffering & Reflecting

A juncture is created where diverse connections are enabled. The communities' culture, race, ethnicity, gender, disability, and other social attributes influence their perception of risks and whether they mitigate them (Hanafi et al., 2021). Understanding and working from within these social attributes and diverse social and vulnerable groups are essential to harness opportunities to strengthen their resilience and increase their engagement and participation in DRRR. In Figure 1, stakeholders and community boundary spanners collaborate to reassemble strength, resources and activities to enhance the community's DRRR. Stakeholders build intergroup safety to establish a sense of safety and security within their group. Buffering shields group members from outside threats so their roles and identities are not threatened and promote collaborations with other stakeholders. University boundary spanners monitor and protect the flow of information and resources across groups to make stakeholders feel safe. The practice of buffering supports boundary spanners to help stakeholders to feel at ease by having a sense of community by being around others who are like them. In contrast, the practice of reflecting involves the mutual sharing of similarities and respecting differences (social attributes, goals, needs, values).

Boundary spanners strengthen stakeholder identities by identifying stakeholders' visions, missions, resources, strengths, capabilities, roles and responsibilities and sharing them with other stakeholders. University stakeholders as communities of practice champion DRRR activities by creating a platform for technical experts to help develop appropriate solutions, facilitate meaningful knowledge exchange among stakeholders and create opportunities for vulnerable groups to share their experiences. Boundary spanners need to prepare deliverables, specify the rules of stakeholder interactions and get buy-in and written consent from agencies and university senior leaders. Those situated far from the geographic, political or social core may be marginalized and thus excluded from DRRR initiatives. Boundary spanning activities such as community, co-production meetings and field trips can be organised to span both sides of the local community-government and other stakeholders boundaries, demographic (gender, age, culture, ethnicity) boundaries and geographic boundaries (locations, regions, languages) (Ernst, 2011).

### 2.2 Phase 2 Establishing Positive Relationships - Connecting

Positive relationships between stakeholders and community boundary spanners are established when group members temporarily put aside their differences and enter a safe, shared space where people can interact and form new relationships. During relationship building, the main objective is to bridge divided stakeholders through intergroup trust, commitment to the interests of and wellbeing of the communities by creating a shared direction and common goals. Communities' needs, values and hopes are explored through forging ties anchored in dynamic, collaborative relationships and authenticity. Developing a shared understanding of needs and potential challenges, community disaster awareness, hazards, risks and vulnerabilities before a disaster all contribute to the post-disaster recovery process. They can help guide an inquiry in the best interests of all stakeholders.

Boundary spanners need patience and persistence to break down boundaries that shift focus from problems to solutions. Boundary spanning activities build trust by getting people of different ages, cultures, gender together for fun events and meals. Setting up student or academic resilience research projects and student industrial training with government agencies can be implemented to consult communities and promote stronger stakeholder partnerships.

### **2.3 Phase 3 Preferred Future - Mobilising**

Developing a preferred future is a fundamental requirement for solution-focused work and mobilising is reframing boundaries by forming coalitions through framing collective action. When engaging stakeholders, it is essential to understand what is motivating them. Incentives and rewards such as financial, material, purpose-driven, social and status incentives can encourage communities and organisations to participate in and contribute to post-disaster recovery projects. The selection of these should be context-specific, culturally sensitive, and aligned with the goals of the recovery project (Hosen & Nakamura, 2020 ; UNDP, 2020). Stakeholders need to adapt to the new conditions and development opportunities after a disaster and create a desirable future based on these circumstances. Envisioning a preferred future allows stakeholders and boundary spanners to develop motivation and ownership to coordinate resources and take collective action towards achieving their goals.

Boundary crossing usually refers to a person's transitions and interactions across different boundaries whereas boundary objects refer to artefacts (e.g. maps, ICT-applications, such as interactive websites, mobile applications or GIS, emissions scenarios, climate model, public outreach) doing the crossing by fulfilling a bridging function in disaster resilience (Becker, 2017; Husin, 2021; Zulkarnain et al., 2019; Yusof et al., 2016; Abdullah et al., 2020; Baka & Zainon, 2021). Businesses and planners have employed boundary objects to help people think about the future (Pulver, 2009). One mobilising tactic in DRRR is to harness social media platforms and ICT applications as boundary objects to cross boundaries, facilitate dialogue and collaborative decision-making and forge common grounds as members of a shared virtual community. A private group Facebook page, Twitter or team blog can be created to organise events and share location, well-being during a disaster, content and information, news stories and personal experiences with other disaster victims (Amber, 2017). Ensuring that the stakeholders have the conversation they need to have rather than the boundary spanners want them to have is a critical motivating influence in positive DRRR outcomes. The use of flood narratives as boundary objects in texts, local memories, images, social media, shared practices has been found to help envision communities' desired future. Flood narratives increase the desire to collaborate in resilience-building and better align governance of DRRR with communities' lay knowledge and daily experiences of disaster risks and resilience (McEwen et al., 2017).

### **2.4 Phase 4 Goal Setting, Strategising on Strength – Weaving**

Weaving occurs when group boundaries 'interlace' yet remain differentiated in their roles and contributions to form new collaborations across groups to achieve common goals. The goal in the Sendai Framework for Disaster Risk Reduction (2015-2030) - to prevent further disasters and build the resilience of communities to disasters - calls for the implementation of an integrated, more people-centred, whole society and all-inclusive measures in DRRR (UN, 2015). In this phase, stakeholder groups can co-produce shared directions, align resources and explore holistic, integrated pre-disaster and post-disaster recovery plans and strategies to address both disaster and pre-existing, ongoing social, economic and community development needs and improved DRRR outcomes. With likely threats and hazards in mind, stakeholder groups will need to determine what resources, goals, priorities, and policies can be established prior to a potential disaster and groups with diverse knowledge, skills, strength, expertise and experience can be brought together to achieve collective goals through cooperative action.

In SFC-DRRR, goal setting emphasises bottom-up community planning and the empowerment of community members by agencies and boundary spanners to develop the capacities that complement their cultures, beliefs, expectations and goals rather than impose solutions on them. People are more likely to prepare for disaster if they perceive their relationship with agencies as empowering and trustworthy.

### **2.5 Phase 5 Plan Implementation - Transforming**

Boundary spanners may take a bridging or advocacy role to facilitate dialogues to plan, prioritise, and strategise DRRR implementation and explore how DRRR goals will be carried out. In this phase of the model, once goals have been clarified, stakeholders co-produce timelines to assess progress, track and match stakeholders and available resources and develop DRRR plans.

Stakeholder reflection on engagement is crucial as it leads to meaningful and sustained goal attainment and outcomes. SFC-DRRR facilitates evaluation and refinement of engagement planning and DRRR goal attainment. Stakeholders and boundary spanners discuss to evaluate if the engagement is well planned and focused with clear objectives, diverse stakeholders have no barriers to participate, suitability of method selected, and participation enables the delivery of transformative change in DRRR (Taylor et al., 2021).

## **3.0 Conclusion**

This research has presented the conceptual basis and description of an integrated model of boundary-spanning strategies overlaid with solution-focused coaching for disaster risk reduction as well as the expected outcomes of such endeavours. The fundamental aspects of the SFC-DRRR model include creating junctures (buffering and reflecting), establishing a positive relationship between stakeholders and community boundary spanners (connecting), developing a preferred future (mobilising), goal setting and strategising based on strength (weaving) and plan implementation (transforming). The model has not been validated, and further research is necessary to determine its effectiveness. Additionally, it is valuable to evaluate the perspectives of stakeholders and student and faculty boundary spanners about SFC-DRRR processes and outcomes.

Developing a coalition towards DRRR collaboration is based on a shared vision and mission and can only be converted into strategies if resources are present and people are willing and competent to cooperate. In responding to the need to shift top-down bureaucratic to horizontal collaboration in DRRR, a willingness to share power and change in mind-sets, our model presents a conceptual framework for understanding boundary spanning and solution-focused coaching strategies as platforms to help communities and stakeholders set

mutually agreeable goals that are appropriately tailored to local culture and circumstances. This paper argued that the implementation of SFC-DRRR is to establish an optimized stimulating environment that empowers DRRR stakeholders through knowledge sharing and engagement in decision-making processes in DRRR.

SFC-DRRR, is unique from other participatory approaches in that the boundary spanners focus on interviewing dialogues to span boundaries as central to change towards collective action and resilience building. The model is conceptualised as a new strategy based on strengths, trust, and goal-setting intervention approaches.

SFC-DRRR provides a practical conceptual framework for university actors taking on the role of community boundary spanners and outline a set of strategies that boundary spanners can utilise to engage DRRR stakeholders to tackle risk collaboratively. The new conceptual model developed in this article can be used by transdisciplinary educators to design effective transformative learning experience to professionalise boundary spanning skills and to close the competency gaps between professional development for practical, shared goal setting for the people they serve rather than focusing on academic qualifications.

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## Paper Contribution to Related Field of Study

This article contributes to the bottom-up engagement of multi-stakeholders by developing a conceptual model to enable student and faculty boundary spanners to empower stakeholders, assess stakeholders, and plan stakeholder engagement activities with a consideration of collaboration across organizational, demographic, geographical, and stakeholder boundaries in disaster risk reduction and recovery.

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