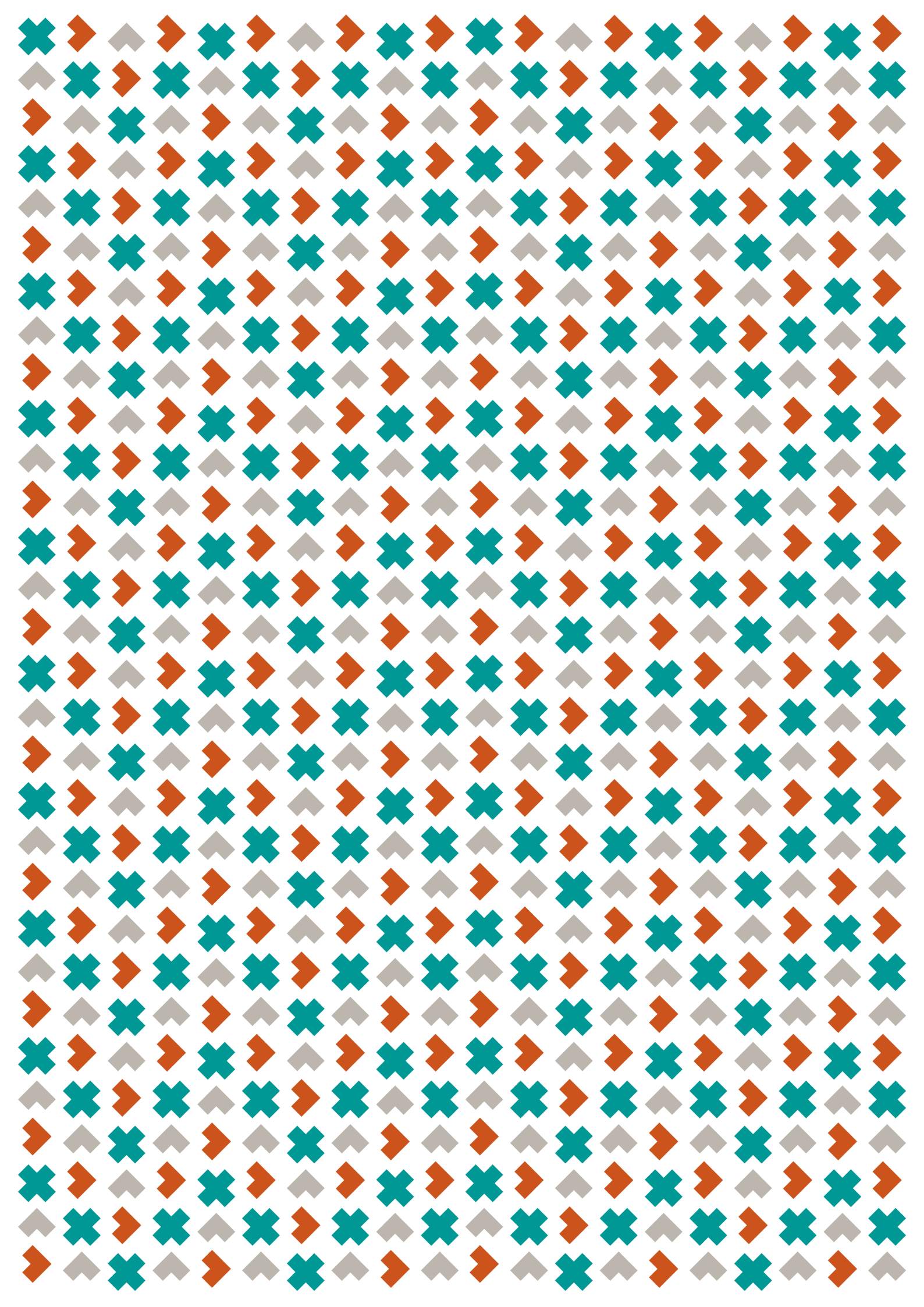


SWISS ACADEMY FOR DEVELOPMENT

SPORT FOR DEVELOPMENT – ALIGNING PRACTICE WITH A VALIDATED BEHAVIOUR CHANGE MODEL



Swiss Academy for Development's commitment to strengthen evidence in sport for development by examining our intervention theory.



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1 INTRODUCTION

“When I had finished training and went home, my friends started telling me “Your life has changed” because I had gotten some basic skills from school which helped me. Others started saying I now speak well; this was through sports and play.”

- 18-year-old Walter, one of our Ugandan participants.

This research article on sport for development (SfD) is part of a broader initiative by the Swiss Academy for Development (SA4D), aimed at exploring the role of sports in promoting social change and deepening our understanding of SfD. As part of this effort, our SDG Trainee, Thomas Harris, spent seven months in Uganda implementing one of our programmes, during which he also gathered data and developed insights that have shaped the direction of this study.

Fieldwork provided a unique opportunity to delve deeper into this. **This research intends to provide a theoretical basis for developing more effective, evidence-based practices within the field.** By examining the alignment between sport and the Behaviour Change Resource Model (see Chapter 3 Methodology), we express our commitment to data-driven methods and highlight the importance of fieldwork in understanding the practical impact of our work. The study was conducted on the “People on the Move” programme which aims at enhancing the well-being and self-determination of war-affected refugees in camps in Northern Uganda and South Sudan.

2 LITERATURE REVIEW

Sport for development refers to the intentional use of sport, physical activity and play to attain specific development objectives, including, most notably, the UN Sustainable Development Goals (SDGs). The approach is based on the conviction that sport-based initiatives can be powerful, practical and cost-effective instruments to support the achievements of development objectives, such as good health and well-being, quality education and gender equality.¹

There is overall consensus in the sector that sport alone is not a catalyst for positive development and that well-designed SfD initiatives must include a high proportion of non-sport activities to be effective

¹ GIZ – German Sport University Cologne: The S4D resource toolkit glossary

in improving children's lives in these domains.²⁻³ Programmes that are strategically planned, pedagogically sound, well-staffed, adapted to context-specific issues, and rigorously monitored and evaluated, are considered necessary preconditions for effective implementation and achievement of their objectives.⁴⁻⁵

Thanks to the efforts of both academics and practitioners, the concept of sport for development has evolved from being understood merely as a belief to becoming a quantifiable, well-recognised global intervention method, with over 1,000 organisations registered on SportandDev, and supported by multilateral institutions. For example, SA4D's "People on the Move" programme, launched in 2012, has measurably improved the psychosocial health (a construct that includes emotional or psychological well-being, as well as social and collective well-being)⁶ of young people in refugee camps in Uganda and South Sudan.

Although sport for development has attracted increasing attention and interest from international stakeholders, the underlying pathways that are activated to achieve development goals remain ambiguous. Despite various intervention theories being proposed, none have emerged as a solid and widely accepted understanding of the mechanism of *how* and *why* sports can contribute to achieving specific outcomes.

Right to Play's latest report, a meta-analysis titled, "Examining the evidence base for play and psychosocial well-being in crisis contexts", finds that "there was a notable lack of clarity in the documents reviewed regarding how an intervention was hypothesised to work [...] these studies did not explain the hypothesised connection or mechanism of change between these outcomes". The report advocates for a "continued investment in research".⁷

Past attempts, such as those by Iva Glibo and Joerg Koenigstorfer, mention that "SfD programmes could support [positive social outcomes]"⁸ but without explaining how exactly this may happen. A similar observation is noted in the work of Stephen Hills, Alejandro Gomez and Matthew Walker. They outline that sport can serve as a tool for social inclusion, a universal neutral language, a hook, or a means for developing life skills—all with "minimal leveraging of the sport (other than as a hook)"⁹.

² Hartmann, D. & Kwauk, C. 2011. Sport and Development: An Overview, Critique, and Reconstruction. *Journal of Sport and Social Issues*, 35, 284-305

³ UNICEF, B. F. 2021. Getting into the Game - Understanding the evidence for child-focused Sport for Development

Hartmann, D. & Kwauk, C. 2011. Sport and Development: An Overview, Critique, and Reconstruction. *Journal of Sport and Social Issues*, 35, 284-305

⁴ UNICEF, B. F. 2021. Getting into the Game - Understanding the evidence for child-focused Sport for Development

⁶ Eiroa-Orosa F. J. (2020). Understanding Psychosocial Wellbeing in the Context of Complex and Multidimensional Problems. *International journal of environmental research and public health*, 17(16), 5937. <https://doi.org/10.3390/ijerph17165937>

⁷ Right To Play | Examining the Evidence Base for Play and Psychosocial Well-Being in Crisis Contexts (2024).

⁸ Glibo, I., & Koenigstorfer, J. (2023). Understanding the nexus of sustainable development and sport: the systems thinking perspective. *Sustainability: Science, Practice and Policy*, 19(1). <https://doi.org/10.1080/15487733.2023.2240664>

⁹ Hills, S., Gómez Velásquez, A., Walker, M. (2018). Sport as an analogy to teach life skills and redefine moral values: A case study of the 'Seedbeds of Peace' sport-for-development programme in Medellín, Colombia. *Journal of Sport for Development*, 6(10)

While these principles have been widely discussed and often contested, the fundamental and intrinsic nature of sport itself has been somewhat overlooked. Attention has shifted towards external factors surrounding sport, rather than focusing on the core elements within sport itself. Essentially, sport is being used as a means to an end, rather than as an end in itself. This perspective underpins the use of the term “sport for development.”

One of the most relevant intervention theories, which has arguably shaped the most advanced comprehension is the “programme theory” initially proposed by Fred Coalter. In short, the theory says that SfD’s logic of intervention lives in the social relationships between the teacher (or “leader”) and the participants. According to Fred Coalter, the “social relationships between programme leaders and participants that are most central to any change in values, attitudes, and behaviours through the development of respect, trust, and reciprocity.”¹⁰ This approach was complemented by Peachey, Schulenkorf and Hill, who have argued that sport can be used as an analogy for a wide diversity of social outcomes.¹¹ This is one of the methods employed at SA4D with the “reflect, connect and apply” model.

While Fred Coalter’s programme theory emphasises the importance of social relationships to reach diverse outcomes, another approach comes from the work of Nico Schulenkorf, Emma Sherry, and Katie Rowe. They identify key components that contribute to the success of sport for development projects, Fred Coalter’s programme theory being one of them. “Key constructs and important programmatic features within much of the research that may contribute to a more specific theoretical understanding of how SfD operates.” The factors the authors highlight as being common across the majority of SfD studies can be summarised as follows:

- (1) A key figure, role model, or change agent
- (2) A participatory approach
- (3) Multiple levels of engagement
- (4) Clear programmatic design
- (5) A safe space
- (6) An empowerment process.¹²

Supported by numerous articles, the above summarises significant advancements in the field. **However, our understanding of sport for development remains largely based on a collection of anecdotal evidence, making it challenging to gain a clear understanding of how SfD works.** Consequently, how can we gain a deeper understanding of sport for development?

¹⁰ Coalter, Fred. (2013). ‘There is loads of relationships here’: Developing a programme theory for sport-for-change programmes. *International Review for the Sociology of Sport*. 48. 594-612. [10.1177/1012690212446143](https://doi.org/10.1177/1012690212446143).

¹¹ Welty Peachey, J., Schulenkorf, N., & Hill, P. (2019). Sport-for-development: A comprehensive analysis of theoretical and conceptual advancements. *Sport Management Review*, 23(5), 783–796. <https://doi.org/10.1016/j.smr.2019.11.002>

¹² Schulenkorf, Nico & Sherry, Emma & Rowe, Katie. (2015). Sport-for-Development: An Integrated Literature Review. *Journal of Sport Management*. 30. [10.1123/jism.2014-0263](https://doi.org/10.1123/jism.2014-0263)

3 METHODOLOGY

To address this challenge, we sought an intervention theory that could align with the literature previously discussed. Through preliminary research and insights from the field, we identified a set of intervention theories that could potentially align with SA4D’s sport and play approach to SfD. At SA4D, we understand sport and play as all forms of group-based physical activity and games that aim to enhance the mental wellbeing, physical health, life skills and the learning of the participants, while at the same time enabling them to experience positive social interactions and to form supportive relationships.

We decided to use the Behaviour Change Resource Model advanced by Maren M. Michaelsen and Tobias Esch. This model was developed to “build a more reliable and effective behaviour change functional mechanism in the context of health-related policies”¹³. Michaelsen and Esch’s 2022 article is rated in the top 25% of all research outputs according to Altmetric.¹⁴

To better understand sport for development through the BCRM, we will first take a closer look at what the BCRM is and how it may align with our sport and play approach.

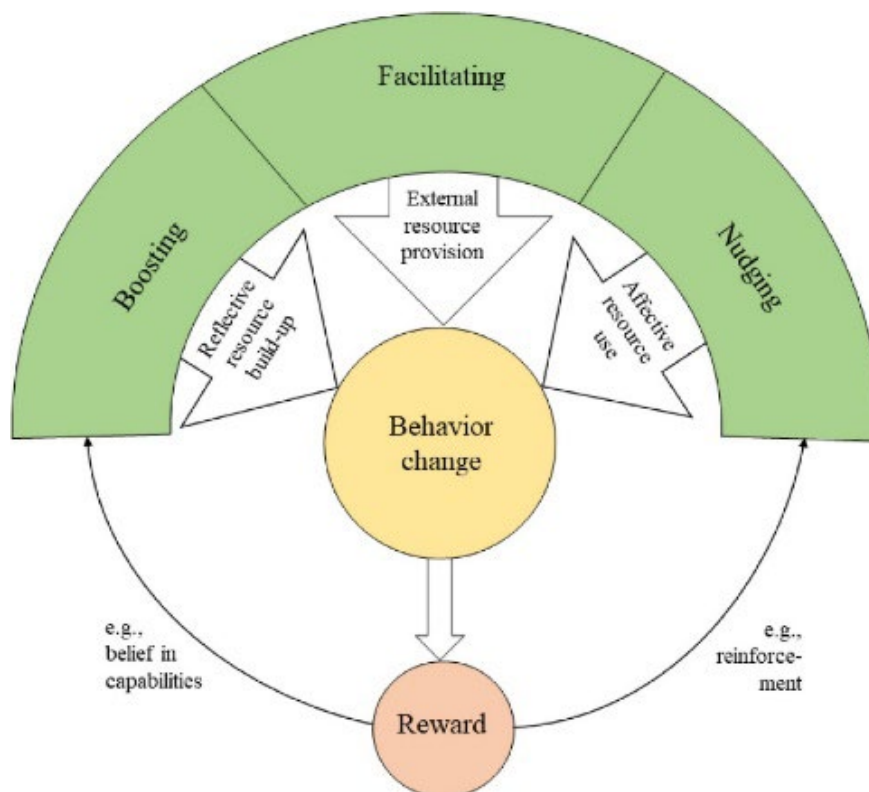


Figure 1: The Behaviour Change Resource Model

¹³ Michaelsen, Maren & Esch, Tobias. (2019). Behaviour Change Resource Model for Lifestyle Interventions. 10.13140/RG.2.2.17136.30726.

¹⁴ Altmetric: Overview of attention for article published in Frontiers in Psychology, March 2022 <https://www.altmetric.com/details/124966025>

As illustrated in the diagram, the Behaviour Change Resource Model (BCRM) breaks down the behaviour change process into three types of dimensions: Facilitating, Boosting and Nudging. In the model, each dimension contributes in different ways to the objective (behaviour change). This model is particularly pertinent as it encompasses all existing behaviour changes technics, meaning any behaviour change technic, can be assigned to one or more of the 3 dimensions.¹⁵ In the following section, we explain what each dimension entails and how they are applied for our research.

— Facilitating

The facilitation dimension is defined as an “External resource provision”, i.e. what kind of context and inputs does the program avail for the participants. Facilitation is the creation of new social, material and environmental resources which can lead to new behaviours.

Examples in our case: by providing a safe environment (such as a playground), coaches (who are there to safeguard, and attend to participants’ needs) and activities for new friendships and positive interactions to take place.

— Boosting

The boosting mechanism is defined as “Reflective resource build-up” that supports behaviour change. This dimension offers the opportunity for participants to experience enjoyable tasks that strengthen internal reflective processes – i.e. participants are stimulated to learn and reflect during a playful activity. Changes in goals, belief in one’s abilities and decision processes are characteristics of the boosting dimension. In our program, this dimension is enabled by the “reflect connect and apply” methodology in which participants can integrate the healthy psychosocial behaviours – through play. In our survey, we seek to identify if participants had the opportunity to reflect on their knowledge and learnings on healthy practices in an enjoyable manner. This may also include enacting the practical application of the new behaviour.

— Nudging

The nudging process refers to the “affective resource use”. It is arguably the more subtle and less tangible behaviour change mechanism in this model. Affective resource use are stimuli and triggers from the environment that orientate towards the new behaviour. It influences the decision-making process through affective inputs such as reinforcement or emotions, often subconscious motivations. An activity that motivates and rewards participants for taking part in the learning process is Nudging. For example, participants and coaches clap and appreciate (i.e. emotionally reward) their teammates when they perform well or do their best in an activity - linked to healthy practices.

¹⁵ Michaelsen, M. M., & Esch, T. (2022). Functional Mechanisms of Health Behavior Change Techniques: A Conceptual Review. *Frontiers in psychology*, 13, 725644. <https://doi.org/10.3389/fpsyg.2022.725644>

— Reward

An interesting aspect of this model is the acknowledgement of a reward feedback loop, either through reinforcement or belief in capabilities. If sufficiently strong, the behavior change can indirectly fortify the 3 dimensions such that a positive outcome from a new behaviour act as a signal that encourages the behaviour even more, enhancing a person’s resources and motivation. If we take the example mentioned in the introduction, the participant had increased he’s ability to “speak well”, he’s friends noticed, and told him; therefore, reinforcing he’s confidence in continuing to apply he’s improved social skills – entering a positive feedback loop. “Thus, the functional mechanisms [...] cannot be understood to be independent of, but interlinked with, neurobiological motivation and reward proceedings.”¹⁶ In the context of psychosocial health, when a participant takes the first step to open up and receive (validation and) reassurance from their coach or councillor, they may become more inclined to speak with another trusted person about their difficulties.

The People on the Move program aims to provide participants with the necessary tools and practices to cope with trauma or mental stresses related to war and migration experiences. In this context, using a sport and play approach; that could align with the BCRM theory is compelling. Not because participants behave poorly, but because a behaviour change (in our sense) can promote emotional expression, build a sense of community, reduce isolation, and improve mental well-being.

To summarise and apply this concept to our program, we developed a diagram illustrating examples of the three dimensions of the Behaviour Change Resource Model (BCRM).

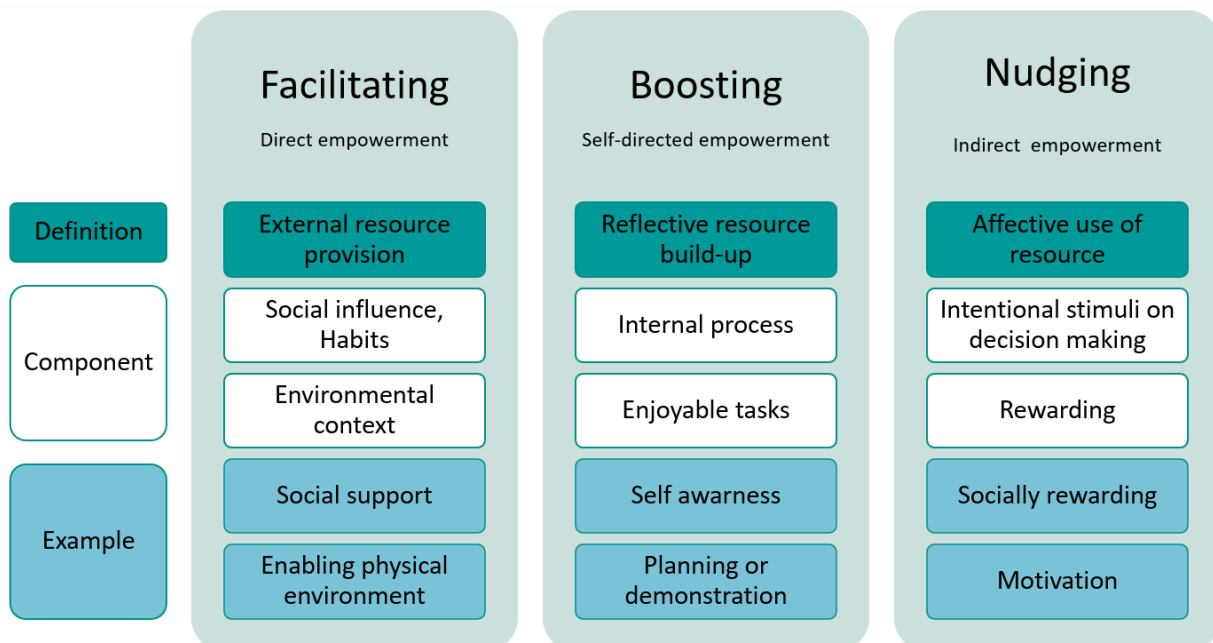


Figure 2: The three pillars of the BCRM, their components and examples

¹⁶ Michaelsen, M. M., & Esch, T. (2022). Functional Mechanisms of Health Behavior Change Techniques: A Conceptual Review. *Frontiers in psychology, 13*, 725644. <https://doi.org/10.3389/fpsyg.2022.725644>

DATA COLLECTION

The data was collected by SA4D's SDG Trainee, Thomas Harris, and coaches from CPSO (Community Psychosocial Support Organisation), our partner in Uganda and South Sudan since 2012. SA4D's programme "People on the Move" seeks to enhance the psychosocial well-being of children and young people (aged 12 to 26) attending school in refugee camps in northern Uganda and South Sudan. We collected 175 surveys across eight different schools, asking if students would strongly agree, agree, disagree or strongly disagree with a series of statements reflective of the behaviour change model mentioned above.

Questions in the survey were designed to align with the Behaviour Change Resource Model (BCRM) framework, [you can find these questions with the answers in the section below]. If a high number of survey respondents "strongly agree" or "agree" with a statement, that would show a high level of alignment with the model. For example, if students answer positively to the statement "I've shared some of the knowledge I've learned with my family members", this will indicate that students find the activities worthy to be talked about with their family. The sport and play experience triggered participants to share this venture with family members – therefore aligning this social phenomenon with the nudging dimension of the BCRM because it is socially rewarding.

Questions were not designed to measure the effectiveness and performance of the programme "People on the Move" that provided the sample. In other words, we seek to understand if sport and play is compatible or fits within the concept of the BCRM. The underlying assumption is that by understanding the mechanisms behind sport for development, we can better leverage them to improve desired outcomes. Specifically, if our sport and play methodology aligns with and is supported by the Behaviour Change Resource Model, it would lend methodological recognition to sport and play, and potentially to the sport for development field as a whole.

4 FINDINGS

Overall, in all three dimensions (facilitating, boosting, and nudging) the questions and corresponding results indicate that sport and play aligns with the Behaviour Change Resource Model, in the context of psychosocial health programmes.

For example, statement 11 relative to the boosting dimension: "I have had the opportunity to show to others what is a good and/or bad health practices" got the following answers: 92 strongly agree with the statement, 70 agree, 5 disagree and 1 strongly disagree.

The only notable exception, and by a stretch, are the answers to statement 18: “It has been difficult to apply the health behaviours at home” with 40 students strongly agreeing, 36 agreeing, 31 disagreeing, and 62 strongly disagreeing.

Please click [here](#) to view a pdf version of the results.

In terms of the reward system, (although not measured directly in this study), the positive physical and mental effects of sports are well established and play a key role in reinforcing behaviour change. Sport, especially in group settings, has been linked to enhanced cognitive function, mood, and memory, as well as the release of neurotransmitters such as endorphins, (endocannabinoids), and dopamine, all of which promote neuroplasticity and the “feel good” sensation.^{17-18 -19} These benefits clearly demonstrate how the movement-based approach reinforces participants' engagement in behaviour change activities and strengthens the model.

Regarding participants' belief in their abilities, our standard Monitoring, Evaluation, and Learning (MEL) process within the 'People on the Move' programme assesses self-efficacy of participants at the start and end of each phase. We use the General Self-Efficacy Scale to measure individuals' perceptions of their overall capacity to handle challenging situations.²⁰ In the previous phases of the programme, we have measured reliable increase in the self-efficacy of participants; reinforcing the mechanism and further confirming sport and plays alignment with the BCRM.

5 LIMITATIONS

Although the results show this programme's sport and play method aligns with the BCRM, several limitations constrain the scope of this research:

- Assessing the extent of the alignment: It is challenging to determine the degree to which this alignment with the theory occurs. For instance, while participants may have the opportunity to "reflect on the learning from the activity," the depth of their understanding during the activity remains unclear. This limitation applies to all the questions.
- Self-reported survey and biases: The surveys are self-reported and susceptible to various biases. For example, peer pressure or the false belief that certain outcomes have been achieved.

¹⁷ Matta Mello Portugal, E., Cevada, T., Sobral Monteiro-Junior, R., Teixeira Guimarães, T., da Cruz Rubini, E., Lattari, E., Blois, C., & Camaz Deslandes, A. (2013). Neuroscience of exercise: from neurobiology mechanisms to mental health. *Neuropsychobiology*, *68*(1), 1–14. <https://doi.org/10.1159/000350946>

¹⁸ Szuhany, K. L., Bugatti, M., & Otto, M. W. (2015). A meta-analytic review of the effects of exercise on brain-derived neurotrophic factor. *Journal of psychiatric research*, *60*, 56–64. <https://doi.org/10.1016/j.jpsychires.2014.10.003>

¹⁹ Gomez-Pinilla, F., & Hillman, C. (2013). The influence of exercise on cognitive abilities. *Comprehensive Physiology*, *3*(1), 403–428. <https://doi.org/10.1002/cphy.c110063>

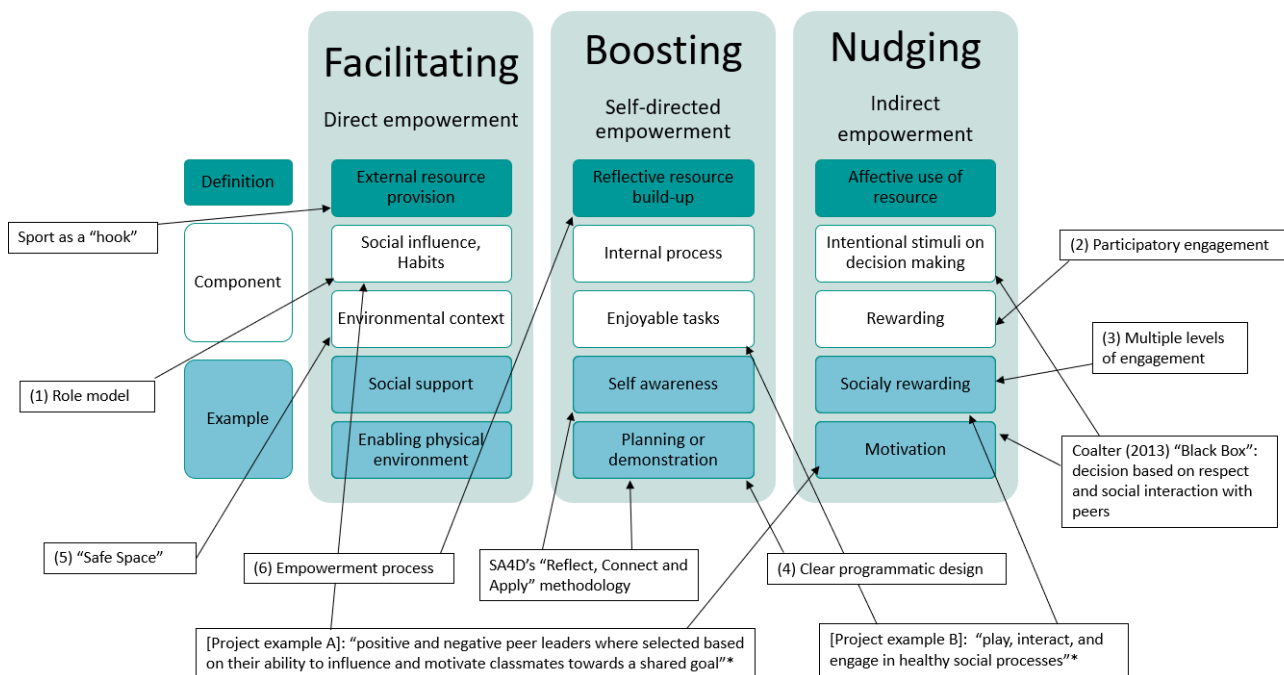
²⁰ Schwarzer, Ralf. (2012). The General Self-Efficacy Scale (GSE). 1-4.

- The quantitative data is not complemented by qualitative data: There is no clear explanation for why some students agreed or disagreed with the statements. For example, if a student reports that sport and play helped build their confidence, it is unclear whether this was due to an increase in awareness, and therefore “self-efficacy” or due to the increased exposure to positive social connections or any other factors.
- Limited scope of the study: The study is limited to a single programme, in one context, and at a specific point in time. Out of curiosity, we also conducted a similar survey for another programme in Uganda, "Moving Youth!", which focuses on livelihood and entrepreneurship. Although the sample size was smaller, we observed very similar results, increasing our confidence in the external validity of the findings.
- Finally, the study does not evaluate the overall effectiveness of the program or assess the sustainability of the reported behaviour change effects.

6 CONCLUSION

While there are some limitations in our methods, the data show that the alignment with the BCRM can give us a better understanding of how SfD works and the mechanisms behind it. In retrospect, we understand this model to be a theoretical basis for the recommendations and good practices that scholars have been promoting and advocating for.

The figure below illustrates how the aggregation of anecdotal evidence and the key components for successful programmes are inextricably linked to the Behaviour Change Resource Model.



* Project examples found in Massey, William & Whitley, Meredith & Blom, Lindsey & Gerstein, Lawrence. (2015). Sport for development and peace: A systems theory perspective on promoting sustainable change. International Journal of Sport Management and Marketing. 16. 18-35. 10.1504/IJSM.2015.074921.

Figure 3: The 3 BCRM pillars with integrated scholarly recommendations of good practices in sport for development

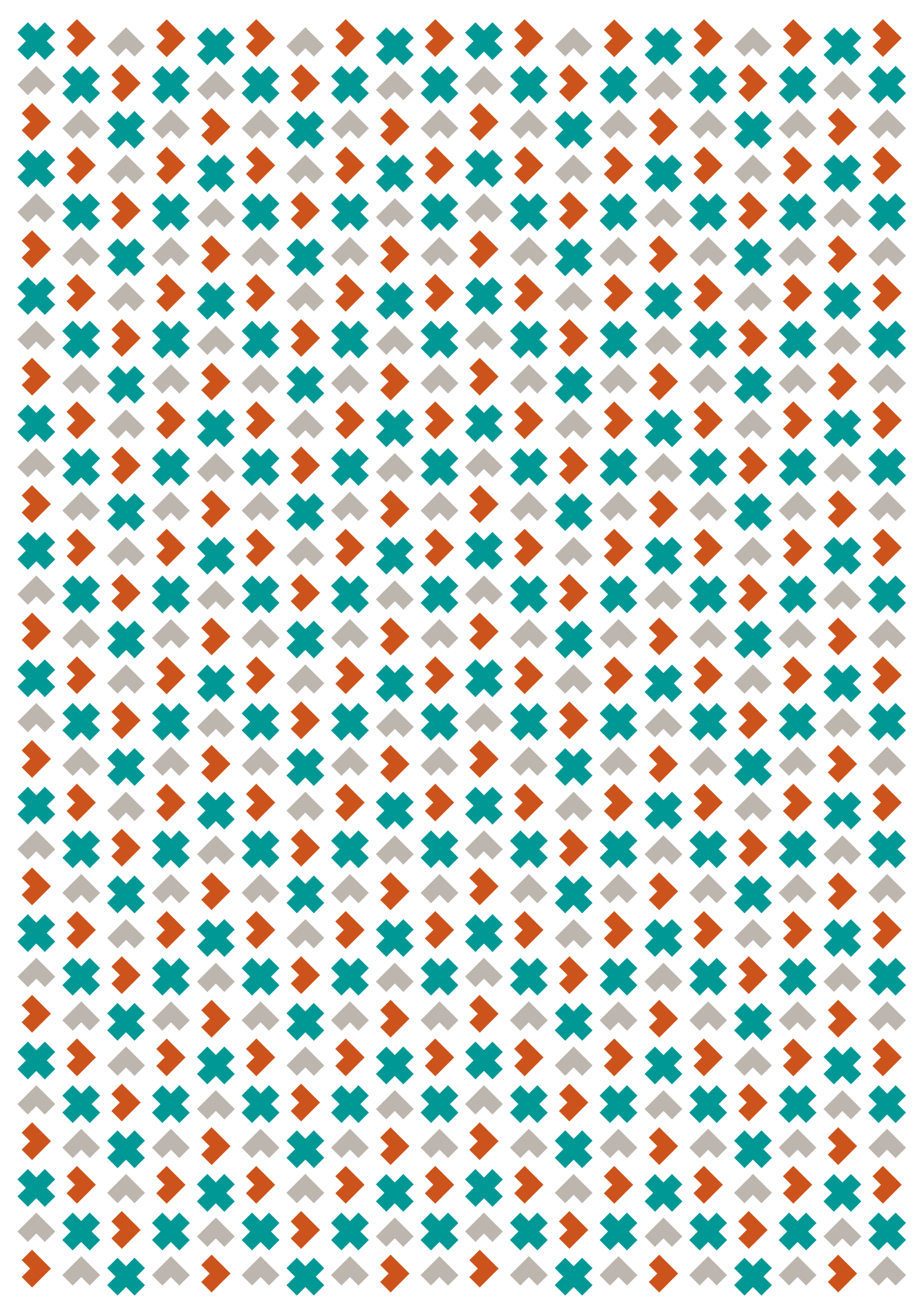
For example, the common recommendation that sport for development projects should serve as a safe space fits within our model under the pillar of “facilitation” because of its alignment with creating an adequate “environmental context.” Similarly, the suggestion that projects should offer participants multiple levels of engagement over time aligns with the “nudging” pillar, given the socially rewarding intention behind this approach.

Furthermore, [Project example A and B] provided are useful to see how other SfD projects may integrate in this model. Indeed, scientific literature share the characteristics that explain why a particular SfD projects has worked. Example A reveals that peer leaders “influence and motivate” participants towards a goal while example B outlines that it’s the playfulness, interactions and participants engagement in healthy social processes that lead to the desired outcomes. As represented in the diagram above, these anecdotal evidence of why SfD project work concur and fit adequately within our BCRM.

Finally, the reward system facilitated through sport provides reinforcement, boosts participants' capabilities, and offers incentives for them to remain engaged in the process.

By testing the alignment with a well-established model, **this integrative and holistic approach provides a deeper understanding of sport for development, specifically recognising it as a behaviour change strategy.**

Future research could aim to validate this theory by comparing the outcomes of a project that incorporates all elements of the BCRM with one that does not.



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