CSP Evaluation Report 2020-21







An impact evaluation report of the Community Sports Program on the socio-emotional development of children in Bhubaneswar, Odisha

Impact of the CSP on the socio-emotional development of children in Bhubaneswar

An evaluation report

By



April 2021





Pro Sport Development (PSD) is an award-winning social enterprise dedicated to utilizing sport to aid in the holistic development of children and youth. PSD has extensive experience in designing, implementing and evaluating different sports-based development programs. PSD works directly with children and youth, as well as trainers and institutions to facilitate and advocate for sport for development programs.



Participatory Research in Asia (PRIA) is a global centre for participatory research and training which focuses on building the capacities of citizens, communities, and institutions, to enable vibrant and gender-equal societies. PRIA's work is focused on empowerment of the excluded through capacity building, knowledge building and policy advocacy. PRIA has linkages with nearly 3,000 NGOs to deliver its programs on the ground.

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Introduction and rationale

Since 2015, Pro Sport Development (PSD) has been implementing a community-based sports program in the city of Bhubaneswar, in the eastern state of Odisha, India. Known as the Community Sports Program (CSP), it works with children between the ages of 5-15 years studying in schools in various slum settlements across the city, to aid in their holistic development.

The overall intended impact of the CSP is to help children from marginalized backgrounds improve their socio-emotional health and well-being, and empower them to become confident and competent leaders within their own communities.

The intended outcomes of the CSP are as follows:

- 1. Children, especially girls, develop soft skills and learn important values while growing in confidence and building resilience.
- 2. Girls and boys develop positive relationships based on mutual respect, equality, and friendship.
- 3. Increased understanding of the benefits of sports participation of children amongst key stakeholders in the community.

In order to strive for these outcomes, PSD utilizes its value-based, multi-sport and physical literacy curriculum, focusing on building fundamental movement skills, promoting participation in mixed gender groups, and teaching various values and soft skills.

Till date, the CSP has reached out to a total of 2,803 children (45% girls) in Bhubaneswar. In 2018, the CSP was recognized as an outstanding example of sport for all and awarded by the International Olympic Committee's Sport and Active Society Commission.

Over the past few years, the changes created by the program have been documented through articles, videos and case studies focusing on individual participants' stories of change. In addition, analysis using secondary data pertaining to the CSP participants has been conducted. However, up until 2019, only basic quantitative data along with limited qualitative assessments were utilized to evaluate the impact of PSD's sport for development (S4D) initiative in Bhubaneswar.

With the support of PRIA, PSD has been able to initiate an in-depth evaluation to better understand the impact of the CSP on the socio-emotional development of children. While the quantitative evaluation was conducted with participants of two new schools that joined the CSP in late 2019 (Saraswati Vidya Mandir Patrapada and Saraswati Shishu Vidya Mandir Ghatikia), qualitative data was collected from all nine participating schools in the academic year 2020-21 (the additional seven schools were Beena Bharati Vidya Mandir, Vivekananda Sikshya Kendra, Saraswati Sishu Mandir Bharatpur, Saraswati Sishu Vidya Mandir Sijua, Ambedkar Sikshya Kendra, Sai Saraswati School, Vivekananda School of Intregal Education).



The overarching question that this evaluation report aims to answer is: What effect does the Community Sports Program have on the socio-emotional development of its participants?

Methodology

For the evaluation of the CSP, a mixed-methods approach was utilized. An explanatory design procedure was used, wherein the quantitative data was collected first, followed by the collection of qualitative data (Creswell & Clark, 2006).

Within the quantitative data, baseline and endline surveys were used with both target and control groups to analyze the changes in their socio-emotional wellbeing. For qualitative data, interviews with select participants, along with their families and PSD trainers, were conducted.

While quantitative data was collected from respondents of the two new schools that joined the CSP in late 2019 (Saraswati Vidya Mandir Patrapada and Saraswati Shishu Vidya Mandir Ghatikia), qualitative data was collected from across the nine participating schools in the academic year 2020-21.

The figure below shows the breakdown of the number of students part of the CSP from the nine participating schools for the academic year 2020-21.



Figure 1: School-wise breakdown of the CSP participants in 2020-21 (n=763)



Quantitative data

For the quantitative data, pre- and post-intervention surveys were conducted, using a predesigned questionnaire, grounded in existing theory on the socio-emotional of youth (Gordon-Hollingsworth et. al, 2015). The survey questionnaire was sub-divided into two sections. The first section collected basic demographic information of the respondents, including their age and gender. The second section consisted of 20 Likert-style questions, designed to determine the social and emotional state of the respondents.

The questionnaire was designed to help measure the change in respondents in the following key indicators:

- Happiness
- Confidence and self-esteem
- Communication and teamwork
- Respect, equality, and fair play
- Leadership
- Sports and education

The survey was self-answered by the participants, but PSD staff were available to assist children and address any doubts or queries. The survey was built in English, and was subsequently translated into Odia, the language of the region and participants' mother tongue, to make it easier for participants to answer.

The PSD staff ensured that the children fully understood every question, providing individual attention and support to those children that required it. While the baseline survey was conducted in-person at the schools, on hard copies of the survey, the endline surveys had to be completed online, due to the closure of schools following the onset of the COVID-19 pandemic and ensuing lockdowns. The endline survey was made available in Odia, via Google Forms, and the PSD staff were available on phone to assist students as they needed.

All participants were informed about their right to consent to participate in this study. This was stated to participants both verbally and in writing, as well as explained by the PSD staff conducting the survey, during both the baseline and endline data collection. The baseline data was collected in December 2019 and the endline data was collected in February 2021.

The survey was conducted with a target and a control group. A total of 267 children participated in the surveys. The target group (n=175) consisted of children registered for the CSP at the time of the baseline data collection, and were part of the online intervention implemented through the year. The control group (n=92) comprised of those children from the same schools who did not and have never previously participated in the CSP.

The respondents from the control group belonged to the same communities and socioeconomic backgrounds as the target group respondents participating in CSP and, therefore, they formed a legitimate control group based on which a comparison can be made (Booth, Colomb & Williams, 2008).





Figure 2: Gender distribution for target (n=175) and control groups (n=92)



Figure 3: Age distribution at endline for target (n=175) and control groups (n=92)

Qualitative data

Qualitative data was also collected as part of the evaluation, in the form of short interviews with participants, their families, and the PSD trainers, to understand more deeply how the CSP had impacted participants during this time period. This qualitative data allowed us to understand the personal impact that the program has had on participants. In total, six participants and their families were interviewed for the qualitative evaluation.

This qualitative data collection is part of PSD's standard monitoring and evaluation system, and the interviews are converted into stories of change which are used to highlight the most significant changes that have occurred in program participants due to the intervention. The participants were chosen by the PSD trainers, since their close interaction with the students helped them identify those who showed significant change through the course of the program.



The qualitative data also included short interviews with the PSD trainers, to corroborate the narratives presented by the participants and their families, and to provide a coach's perspective on participants' growth. These interviews also highlight the trainers' experiences, learnings, and the challenges they encountered during the delivery of the program.



Figure 4: Data collection tools

It is important to note the context of the COVID-19 global pandemic, which severely impacted the lives of the participants and disrupted the implementation of the original version of the CSP. The onset of the COVID-19 pandemic meant that PSD had to remodel its mode of program delivery and take the CSP online, reaching out to children via virtual mediums, in order to ensure that they remain engaged in physical activities (within their homes) that impart the teachings of CSP.



Findings and discussion

Quantitative data

The survey data collected was analyzed in order to compare the target and control groups, as well as to observe the changes that had occurred within these groups over time. The analysis was done via two methods. The first method compared the average responses for each indicator (mentioned in the methodology section) for the baseline and endline results of the control and target groups. The second method calculated and compared the index scores of the baseline and endline results within the control and target groups for each indicator.¹



Image 1: Data collection for the baseline survey in December 2019

¹ The methodology used to calculate the index scores is detailed in Appendix A.





Figure 5: % of average responses of target group for different indicators (n=175)





Figure 6: % of average responses of control group for different indicators (n=92)



	Comparison of Index Scores					
Indicators	Target Group			Control Group		
	Baseline	Endline	% change	Baseline	Endline	% change
Happiness	81.3%	82.4%	+1.1%	81.2%	83.8%	+2.6%
Confidence & self-esteem	85.0%	77.7%	-7.3%	86.3%	78.3%	-8%
Communication & teamwork	80.8%	83.1%	+2.3%	77.7%	83.6%	+5.9%
Respect, equality & fair play	73.0%	75.9%	+2.9%	74.7%	81.7%	+7%
Leadership	81.3%	77.0%	-4.3%	80.1%	75.4%	-4.7%
Sports & education	93.6%	92.2%	-1.4%	94.6%	92.3%	-2.4%

Table 1: Comparison of index scores for target and control groups

The analysis of the survey data revealed that no clear conclusions about the impact of the CSP on the socio-emotional development of the participants can be drawn. Ideally, a positive impact of the CSP would have shown the average responses and index scores for the indicators of the target respondents increase positively over the span of the project period, while at the same time the average responses and index scores for the indicators of the control group would have stayed the same, with some variation due to external factors.

However, as seen in the data analysis of the surveys, the average responses and index scores of a few indicators of both the target respondents and control group have shown a positive change whereas others have shown a negative change over the evaluation period. Interestingly, the change witnessed in the baseline and endline data for the average responses and index scores for all indicators for both the target respondents and control group follow very similar patterns.

Given the context of the COVID-19 pandemic, evaluating the impact of the re-modelled version of the CSP on the children in Bhubaneswar, which was delivered online, was particularly difficult. Drawing concrete conclusions from the pre- and post-survey data was tough, as there could have been several external factors responsible for the children's social and emotional state during the past year.



The survey responses of the baseline and endline surveys required children to self-assess their social and emotional state at a given time. The baseline survey was conducted in December 2019, in a pre-pandemic time, when the participants' socio-emotional wellbeing would be drastically different from the time of data collection for the post-survey, conducted in February 2021, after the children had been at home for almost a year, with schools shut down for the entire duration, and when the world was still in uncertainty.

Reflecting on the situation that the children have been through in the last year due to COVID-19, it can be argued that the CSP could have been instrumental in reducing the negative impact in their lives, which may have been severe if not for the intervention and the regular participation of children in physical activity, albeit restricted to within the participants' homes.

Qualitative data

The qualitative data collected focused on the individual-level changes that occurred in select participants due to their participation in the CSP. The narratives that emerged from the qualitative data concluded that many participants found that they had greatly benefited from the CSP in a myriad of ways. This included increased physical activity levels, improved confidence, increased digital literacy, improved concentration and cognitive abilities, an increased understanding of gender issues, and an ability to stay connected with their peers while not being able to attend school.

As Snider (2010) notes, numbers often conceal more than they reveal, and this was indeed the case for this evaluation. While no conclusive findings were drawn from the survey analysis, the interviews captured the various ways in which the CSP has been decidedly helpful to the participants during an especially difficult period of global unrest and uncertainty.

The qualitative data collected informed us of the keen interest, active participation and changes witnessed in the participating children due to the online version of the CSP, which has been actively supported by both parents and schools in the past year.

Improved physical activity levels

Most participants noted that the online mode of the CSP had been integral to improving their physical activity levels during the pandemic, especially since the closure of schools did not provide for many other opportunities to play games and sports.

<u>Anandita</u>, a class 10 student, found that she was becoming quite lazy while away from school. However, with the revival of the CSP online, she got a chance to become active again, and enjoyed participating in the physical activities and online yoga sessions.

<u>Subhrajit</u>, a class 8 student, was in a similar position while at home, and there was a complete absence of physical activity from his routine. "During the lockdown, I felt I was getting lazier by the day, [and] I was always eating and there was no form of physical activity," he noted. He was ecstatic when the CSP was brought back online, as he got to be a part of interactive and enjoyable activities. He found the online sessions highly engaging, as the CSP provided a platform that allowed him to get involved in physical activities from his home itself.

For Subhrajit, the online activities have also given him a chance to become more active than he was before, and to try out different games. He expressed how the CSP contributed to



increasing his interest for physical activities: "Ever since the online version of CSP was implemented, I have been enjoying all the activities. I did participate in school activities [before COVID-19] but wasn't as active."

<u>Sibani</u> found her mental health to be adversely affected by the pandemic, and the online version of the CSP helped her break the monotony caused by the lockdown through the integration of physical activity into her daily routine. For Sibani, the digital CSP amplified her physical fitness, ensuring her mental health and wellbeing.

Increased confidence

An important aspect of the CSP is ensuring that children have an increased sense of self and become more confident. This was noted by many participants that were interviewed, who found that they believed in themselves more after undergoing the CSP.

In the past, Subhrajit has struggled with his body image, as he would often compare his body to the 'ideal' and unrealistic standards set by the society. Body-shaming often leads to lowered confidence among children and that was the case with Subhrajit as well. Even at such a young age, Subhrajit was socialized into thinking that his weight limited his participation in sport and other physical activities. This was reflected in his lack of interest in the sport activities that were conducted in his school before its closure due to COVID-19.

The CSP has been successful in improving Subhrajit's confidence levels as well as his bodyimage. Through the focus on the fun aspect of sport, the CSP has reduced his inhibitions, which were hindering his participation in physical activities and sport.

Anandita's increased confidence was evident when she participated in an <u>international youth</u> <u>exchange</u>, held by PSD in collaboration with Urban Initiatives, a Chicago-based sport-fordevelopment organization. She gave a presentation on the Sambalpuri sari, and delivered the presentation in English, her third language, without any hesitation.

<u>Biswapriya</u>, a class 8 student, and <u>Smrutiprangya</u>, a class 7 student, also found that their confidence levels had increased. For both, their increased confidence levels meant that they felt comfortable leading online sessions with their peers – while Biswapriya conducted online trainings on gender, Smrutiprangya led an online exercise session for her fellow participants.

Increased concentration and cognitive abilities

Many of the participants noted that their participation in the CSP helped improve their academic performance as well. The pandemic has made it difficult for all to concentrate on the tasks at hand, but the CSP has provided participants with the ability to remain focused on their studies.

Anandita found that her focus was wavering during the initial stages of the lockdown, as she found it hard to concentrate on her studies. However, the CSP brough discipline into her life, and allowed her to focus more, ensuring that she maintained her attendance in her classes, even though many of her peers would not do so. Her father noted: "Before, she was very lazy, didn't listen to our instructions, and did not study on time. After participating in the PSD program, she is active for all the work. She studies at the correct time."



Similarly, Smrutiprangya found a considerable difference in her concentration levels as well as her memory after participating in the CSP. Sibani echoes the sentiment, stating: "I have felt a difference in my memory and concentration power after we were introduced to the online program of CSP."

Improved digital literacy

While the pandemic has moved almost everything online, including classes for regular subjects, many students were not prepared for the move and lacked the technological skills required to maneuver the online world. This was the case for many of the participants of the CSP as well. However, the online version of the CSP has been integral for the digital skill development of many participants, as they were led by the PSD trainers to understand how to navigate the online world.

Smrutiprangya found her digital skills were vastly improved through the CSP, sharing, "I didn't know how to operate a smartphone well before CSP's online session, but the program helped me gain new knowledge through my phone." Now, Smrutiprangya is confident enough to be able to use a smartphone to edit videos and share them across various channels.

Her mother has also been impressed by her new skills, noting: "I am happy to see how Smrutiprangya has managed to grasp the basics of a smartphone through the CSP, it has worked out pretty well for her as she is now able to study and practice in a more disciplined manner."

Biswapriya also noted his newfound digital abilities, which were integral in him leading online sessions with his peers on gender, violence, and stereotypes. After receiving some basic training from the PSD trainers, he delivered three online gender training sessions to his peers.

Improved understanding of gender justice

A cornerstone of the CSP is its focus on gender equality and commitment to gender justice. Beyond the physical activity sessions, participants are also given gender trainings, helping them recognize the various ways in which gender inequality plays out in our lives.

<u>Srabani</u>, a class 8 student, found that the CSP sessions have helped her identify the gender injustices in her life, and she has new-found passion towards implementing gender justice in her community.

Srabani observed that family structures contribute to gender-based discrimination, as boys and girls are treated differently within households. She shares, "I really want all parents to see their sons and daughters equally." She feels the CSP has played an important role in provoking her to think on these lines and the workshops have helped her question the realities around her and how they affect her.

Srabani's introspection regarding gender dynamics was demonstrated in her behavior at home, and she often discusses gender norms with her father. Her father expresses how he has observed a change in her thinking: "She has actively started debating the prevalent gender roles and this indicates the change in her mindset." The constant discussions between Srabani and her father have compelled her family members to question societal gender norms as well.



Biswapriya has also been made aware of gender inequality in the society through the CSP, and his participation in the program has strengthened his resolve to become a changemaker and a champion of gender equality in his community. He has become a peer-trainer, successfully delivering numerous gender workshops to many of his peers across the country. His family has strongly supported his ventures and has helped him build his sense of social responsibility.

Staying connected

Lastly, participants noted that the online version of the CSP allowed them to remain connected with their friends, especially during a time when interactions with their peers have been limited, due to the lockdown and closure of schools, especially in a fun and casual setting.

For Sibani, the online version of the CSP revived her network of friendships, and she was excited to be back in touch with her classmates, stating: "One of my special reasons to attend the CSP sessions is the opportunity to talk to my friends."

Subhrajit has also found that the online CSP helped him reconnect with his peers and provided him with an opportunity to interact with his classmates and participants from other classes.

Srabani, on the other hand, found that the CSP pushed her to interact with those individuals that she usually would not, especially boys. She got the opportunity to interact with boys in her class in a comfortable setting, and she looks forward to more such interactions with her male classmates in the future: "The online sessions gave me an opportunity to talk to boys from my class, which is not the case otherwise. I'd want to be a part of more such sessions so that I get to know them better!"

Thus, the online sessions were an important way for students to stay connected with their friends and peers, and to enjoy a few moments of fun and games with them during a difficult and isolating time.

Impact of COVID-19

The pandemic had a huge impact on people's everyday lives and has particularly disrupted the lives of children and youth. The pandemic has meant that children have been confined to the space of their personal homes and unable to socially interact with many outside their own families. These drastic changes, as a result of COVID-19, have affected the mental health of children as fear, stress and worry among children have increased (UNICEF, 2020).

As a result of the global pandemic, the original CSP intervention had to be redesigned in response to lockdowns and the closure of schools in India. Over the past year, the CSP was implemented with a re-modeled approach and an online mode of delivery.

Re-modeling the CSP

During the evaluation period, PSD had to adapt the CSP to the COVID-19 circumstances, thereby not being able to provide the CSP on a full-scale or in the intended form. The entire program had to be pivoted online, without any prior precedent of the same.



Though the crux of the program in online mode was similar to its on-ground implementation, it had limitations and challenges. Given that the CSP relies on interpersonal interactions with students and is a sports-based program which requires face-to-face interactions, moving it online completely changed the way we understood the program.

Further, PSD trainers and implementers did not have much time before moving the program online. While the national lockdown in India began at the end of March 2020, the online version of the CSP started by August 2020. In just 3 months, the trainers had to adapt the program to an online mode, while ensuring that the activities would be accessible with limited network and bandwidth, given that our participants are from socio-economically underprivileged backgrounds. Moreover, given the fact that an online version of the program had never been trialed before, we were unsure if it would have the intended impact on the children.

Monitoring the participants online and ensuring that they had completed the activities and sessions was difficult, given that most of them did not own the devices they used to access the program, and had limited usage of the same, as the same device was shared among various family members. Thus, unlike in a face-to-face delivery, the trainers could not ensure that the students were actively participating in the program.

Hence, the COVID-19 pandemic strongly impacted the program delivery, as the modified activities could not be delivered in as robust a manner as the face-to-face mode is able to. Further, the pandemic also restricted the team's capability to conduct this evaluation, which also had to be modified to comply with the lockdowns and restrictions.



Conclusion

Even though the quantitative tools used as part of the evaluation have not evidenced the expected findings, this is not to say that the CSP has not led to positive changes in the socio-emotional development of its participants.

As observed through the qualitative data, the CSP has proved to be vital in enhancing the different skill sets of the participants, progressively aiding their holistic development. This has been particularly important in the backdrop of the COVID-19 pandemic, which has been a difficult time for everyone, including the CSP participants.

This evaluation highlights two important things. First, a longitudinal study, conducted over a longer period of time, would be more helpful at capturing the impact of an intervention such as the CSP, especially utilizing quantitative tools. Recent developments in the S4D field have found that there is a clear demand for more data-driven and longitudinal research on the impact of sport for developmental goals (UNICEF Office of Research, 2019). Such an evaluation would help determine the long-term impact of a sustained and deliberate sport and physical activity program on the holistic development of children and youth.

Second, this study explicates that quantitative data, by itself, is not sufficient to evaluate the merits of an intervention, and must be supplemented with rich, qualitative data, which helps us understand the real changes that are being made in the lives of the participants. As found through the qualitative data collected for this evaluation, the CSP has had a real impact on its participants, helping them cope during an especially difficult time, and this cannot be discounted for due to a lack of supporting quantitative data. At the end of the day, it is the real changes being made in the participants' lives which matter, which can be understood better from them telling their own stories.



References

- Barnett, C., Masset, E., Dogbe, T., Jupp, D., Korboe, D., Acharya, A., Nelson, K., Eager, T., Hilton, T. (2018). *Endline summary report: Impact evaluation of the SADA Millennium Villages Project in Northern Ghana.* UK Department for International Development. https://www.itad.com/knowledge-product/endline-summary-report-impact-evaluation-of-thesada-millennium-villages-project-in-northern-ghana/
- Chaudhary, A. K., & Israel, G. D. (2018). *The savvy survey #6d: Constructing indices for a questionnaire*. University of Florida. https://edis.ifas.ufl.edu/pd069
- Coalter, F. (n.d). *Sport-in-development: A monitoring and evaluation manual*. University of Stirling. https://www.sportanddev.org/sites/default/files/downloads/10__sport_in_development_____a_monitoring_and_evaluation_manual.pdf
- Creswell, J.W., & Clarke, V.L.P. (2006). *Designing and conducting mixed methods research*. SAGE.
- Crossman, A. (2019). *How to use indexes and scales in research*. ThoughtCo. https://www.thoughtco.com/indexes-and-scales-3026544.
- Bhat, S., & Talreja, V. (2018). *#Whatnext is a two-way street*. Dream a dream. <u>https://dreamadream.org/whatnext-is-a-two-way-street/</u>
- Dwchangemakers. (2020). Case study: UNODC Baseline, endline and impact evaluation of the LULU program. Development Works Changemakers https://dwchangemakers.com/impact-evaluation-of-the-lulu-program/
- Gail, B.B. (2012). The effects of youth sports participation on emotional intelligence in middle school students. [Master's thesis, San Diego State University]. https://digitallibrary.sdsu.edu/islandora/object/sdsu%3A3961
- Gordon-Hollingsworth A.T., Thompson J.E., Geary M.A., Schexnaildre M.A., Lai B.S., & Kelley M.L. (2016). Social support questionnaire for children: Development and initial validation. *Measurement and Evaluation in Counselling and Development*, 49(2): 122 144. <u>https://doi.org/10.1177/0748175615596780</u>
- Grossman, G., Platas, M., & Rodden, J. (2017). *Endline impact evaluation*. USAID. https://pdf.usaid.gov/pdf_docs/PA00N1TC.pdf
- Hills, P., & Argyle M. (2002). The Oxford Happiness Questionnaire: A compact scale for the measurement of psychological well-being. *Personality and Individual Difference*, 33(7): 1073 – 182.
- Jonason, C., Abimpaye, M., Bakunda, Y., Cozzolino, S., & Alubisia, A. (2015). *Mureke Dusome impact evaluation endline report*. Save the Children and USAID. <u>https://resourcecentre.savethechildren.net/node/17218/pdf/mureke_dusome_impact_eva</u> <u>luation_endline_report.pdf</u>



- Leeuw, F., & Vaessen, J. (2009). *Impact evaluations and development*. NONIE. https://www.oecd.org/development/evaluation/dcdndep/47466906.pdf
- Morgan, R (2014). *The children's happiness scale*. Ofsted. https://dera.ioe.ac.uk/20502/1/The%20Children's%20Happiness%20Scale.pdf
- Persha, L., & Patterson-Stein, J. (2018). *Phase II baseline and phase I midline report*. USAID https://land-links.org/wp-content/uploads/2018/12/LTA-IE-Baseline-Midline-Report-Impact-Evaluation-of-the-Feed-the-Future-Tanzania-Land-Tenure-Assistance-Activity.pdf
- Rosewater, A. (2010). *Playing well: Organized sports and the health of children and youth.* Team-Up for Youth. <u>https://www.afterschoolnetwork.org/sites/main/files/file-attachments/organized_sports_web.pdf</u>
- Ruddle, N., & Rawle, G. (2020). *EQUIP-Tanzania impact evaluation: Final endline report*. EQUIP-T. https://www.opml.co.uk/files/Publications/8383-assessing-equipt/1589895669_opm-ie-final-endline-report-final.pdf?noredirect=1
- Save the Children Bhutan. (2017). *Care for child development (C4CD) plus: Impact evaluation report*. Department of Public Health & Save the Children. https://www.savethechildren.org/content/dam/usa/reports/ed-cp/bhutan-c4cd-report-2017.pdf
- Smith, K. (2019). Preventing child, early and forced marriage: Baseline–endline report. Commonwealth of Learning, Global Affairs Canada. http://dspace.col.org/bitstream/handle/11599/3281/GIRLS%20Inspire_Baseline-Endline%20Report_PreventingCEFM_2019.pdf
- Snider, J. (2010). Commentary: The cult of statistical pyrotechnics. *Education Week*, 29(21), 20–21.
- UNICEF. (2020). Beyond masks: Societal impacts of COVID-19 and accelerated solutions for children and adolescents. UNICEF. https://www.unicefirc.org/publications/pdf/UNICEF-Beyond-Masks-Report-Societal-impacts-of-COVID-19.pdf
- UNICEF Office of Research Innocenti Florence. (2019). *Getting into the Game: Understanding the evidence for child-focused sport for development, Summary Report.* UNICEF. <u>https://www.unicef-irc.org/reportcards/files/Getting-into</u> <u>the%20Game_Evidence-Child-Sport-for-Development_Report-Summary.pdf</u>
- White, H., & Barbu, A. (2006). Impact evaluation the experience of the independent evaluation group of the World Bank. World Bank Group. <u>http://documents1.worldbank.org/curated/en/475491468138595632/pdf/382680Impact1</u> <u>e10experience01PUBLIC1.pdf</u>



Appendix A: Methodology for index calculation

The survey questionnaire consisted of 20 Likert-scale style questions, divided into six indicators. The analysis of the baseline and endline data looked at the responses of the participants from two angles:

- The percentages of different responses averaged for each indicator.
- The cumulative index scores for each indicator.

An index gives a group representation of the responses of the participants and indicates their agreement (or disagreement) to the same.

The questions and/or statements from the survey questionnaire asked each participant to rate statements based on a Likert-scale as described below:

- 1 = Strongly Disagree (*I never feel like this*)
- 2 = Disagree (*I rarely feel like this*)
- 3 = Neutral (*I only sometimes feel like this*)
- 4 = Agree (*I mostly feel like this*)
- 5 = Strongly Agree (*I always feel like this*)

The questions and/or statements in this section were categorized into the following indicators:

- Happiness
- Confidence and self-esteem
- Communication and teamwork
- Respect, equality, and fair play
- Leadership
- Sport and education

To calculate a cumulative index score for each of these indicators, the following method was adopted:

- Each question and/or statement part of an indicator was given a maximum rating score (number of respondents * highest Likert-scale rating).
- This maximum rating score for each question and/or statement was then totaled to come up with the maximum score for each indicator.
- Finally, the ratings provided by the participants were summed up for all the statements part of an indicator and then divided by this total indicator score; the percentage of this number was taken as the index score. The method of calculating a percentage was adopted to create a single summary index score for each indicator.



Below is an example illustrating this methodology further.

Example: Calculation of the happiness indicator of the control group

The happiness indicator is made up of questions 1, 2 and 3 within the survey questionnaire.

Q1) I feel happy	(X = maximum score of Q1))	5*92 = 460
Q2) I am positive	(Y = maximum score of Q2))	5*92 = 460
Q3) I laugh a lot	(Z = maximum score of Q3))	5*92 = 460
Total	(X) + (Y) + (Z) = (maximum score of HI)	460 + 460 + 460 = 1380
Index Score of Happiness Indicator	(S) / 1380	(S)/1380 * 100 = HI

*92 - Total number of respondents for control group, 5 - highest Likert scale rating

X - Maximum score for Q1

Y - Maximum Score for Q2

Z - Maximum Score for Q3

S - Sum of the actual rating scores of total number of respondents, for all questions and/or statements under happiness indicator

HI -- Index score of happiness indicator

