

The effect of NAMA Foundation's Interventions on Student Engagement in Co-Curricular and Out-Of-School Activities in Indonesia, Kyrgyzstan, and Tanzania

Siti Kholijah Binti Kassim¹, Ssekamanya Siraje Abdallah, Syarifah Rohaniah Bt Syed Mahmood & Norwati Binti Mansor

ABSTRACT

This study examines the effect of the NAMA Foundation's interventions on engagement in co-curricular and out-of-school activities, a key component of holistic student development, in secondary schools across Indonesia, Kyrgyzstan, and Tanzania. Employing a longitudinal mixed-methods approach, baseline (2021) and mid-term (2022) data were collected using student questionnaires covering domains such as participation in sports, clubs, teamwork, and community activities. Independent t-tests were conducted to compare pre- and post-intervention means for each country, while effect sizes were calculated using Cohen's d. Results revealed statistically significant improvements ($p < 0.05$) in overall student participation and engagement in extracurricular and out-of-school activities, with most items showing medium to large effect sizes (Cohen's $d > 0.5$ to > 0.8) in Indonesia and Kyrgyzstan, and small to moderate effects in Tanzania. These findings affirm the substantial impact of structured, inclusive programs on fostering holistic development, in line with prior research. Nevertheless, the study highlights ongoing challenges related to resource allocation and equitable access, especially in Tanzania. The results underscore the importance of continued investment in extracurricular infrastructure and policy reforms to promote holistic growth in diverse educational settings.

Keywords: *Holistic development, extracurricular activities, out-of-school activities, secondary education, NAMA Foundation*

1 Kulliyah of Education, International Islamic University Malaysia, Kuala Lumpur, Malaysia

**Corresponding Author:* sitikholijahkassim@iium.edu.my

INTRODUCTION

The rapid social, technological, and economic changes of the 21st century have placed increasing demands on educational systems to produce graduates who are not only academically proficient but also equipped with a broad set of life, civic, and employability skills. This imperative has led to a growing global focus on holistic student development—the nurturing of intellectual, social, emotional, physical, and ethical dimensions of learners—particularly in secondary schools (Tunku Ahmad et al., 2024; Chan & Yeung, 2020). Such a vision is especially critical in developing and transitional contexts, including Indonesia, Kyrgyzstan, and Tanzania, where schools face both opportunities and barriers in fostering well-rounded graduates (Ahmed et al., 2024; Mohamed & Osaki, 2022; Munadi & Khuriyah, 2023).

A substantial body of research underscores the important role of extracurricular and out-of-school activities—such as sports, leadership programs, academic clubs, and community service—in supporting comprehensive student growth. Participation in these activities has been linked with the acquisition of key 21st-century competencies, including collaboration, communication, creativity, problem-solving, and digital literacy (Berry, 2010; Rich, 2010, as cited in Tunku Ahmad et al., 2024; Açak et al., 2023; Forneris et al., 2015; Prabowo et al., 2025). Sports and physical activities, in particular, foster teamwork, self-confidence, goal-setting, and social competence; while leadership and service roles develop community awareness, personal responsibility, and empowerment (Mohamed & Osaki, 2022; Munadi & Khuriyah, 2023; Feraco et al., 2022). Academic enhancement activities, including clubs and debate societies, promote self-regulated learning, motivation, and cognitive achievement (Chan & Yeung, 2020; Machunde & Ilomo, 2022; Feraco et al., 2022).

Despite this evidence, the integration of holistic development through extracurricular engagement remains uneven, particularly in low- and middle-income countries. Reviews highlight that the benefits of extracurricular activities are related to program quality, whereby structured, inclusive programs supported by trained staff and adequate resources yield the strongest developmental outcomes (Berti et al., 2023; Prabowo et al., 2025). However, many schools in Indonesia, Kyrgyzstan, and Tanzania still face systemic barriers, such as limited facilities, insufficient funding, and a lack of teacher training. These challenges are especially acute for girls and students in rural or under-resourced areas (NAMA Foundation, 2022; Clement & Mwila, 2023). As a result, opportunities for holistic development remain constrained, with extracurricular offerings often limited to traditional sports or isolated initiatives, rarely connected to broader educational outcomes (NAMA Foundation, 2022; Tunku Ahmad et al., 2024).

Regional experiences further illuminate these challenges and opportunities. In Indonesia, for example, scouting and values-based programs are integral to fostering life skills, while school-based management and

community involvement help align holistic development with local culture and religious values (Fatimah, 2020; Wahyudi et al., 2023). In Tanzania, extracurricular activities encompass sports, academic clubs, religious activities, and practical projects, collectively promoting fitness, creativity, and moral development, but participation remains limited by infrastructural and gender-related constraints (Machunde & Ilomo, 2022; Clement & Mwila, 2023). Kyrgyzstan, meanwhile, demonstrates innovative approaches to student empowerment, though practices are less well-documented and implementation varies widely (Madmuratova, 2024; Omorov & Emilbek Uulu, 2021).

Given these contextual dynamics, embedding holistic development within the secondary school ecosystem—through equitable access to well-supported extracurricular and out-of-school activities—is a critical, yet still under-realized, educational goal (Ahmed et al., 2024; Ssekamanya et al., 2024). Recent policy frameworks and educational reforms urge schools to adopt inclusive, strategic approaches that link classroom and non-classroom learning, ensuring all students, regardless of background, have opportunities to build the competencies required for well-being, citizenship, and lifelong learning.

Holistic Student Development in Tanzanian Secondary Schools

Holistic student development in Tanzanian secondary schools is increasingly recognized as critical for nurturing students who are intellectually, morally, physically, and socially competent. In the Tanzanian context, holistic development is not achieved solely through academic instruction but is strongly supported by a range of extracurricular and co-curricular activities, as well as school culture and leadership practices (Lyoba & Mwila, 2022; Mulokozi & Mwemezi, 2024).

Several studies have documented the positive impact of sports, games, and physical education on Tanzanian students' physical fitness, confidence, and school attendance. Lyoba and Mwila (2022) found that participation in extracurricular activities was associated with improvements in physical well-being and a more positive attitude toward school. Similarly, Mseli and Ilomo (2021) provided quantitative evidence that compulsory physical education and manual work significantly benefit students' physical and mental health, with mean scores above 3.5 on a 5-point scale. These findings are echoed by Clement and Mwila (2023), who noted that sports and games play a crucial role in encouraging teamwork and discipline, although access is often limited by infrastructural and gender-related barriers, particularly for female students in rural settings.

Academic clubs and related intellectual activities have also emerged as key contributors to holistic development. Mohamed and Osaki (2022) showed that participation in academic and social clubs fosters creativity, problem-solving, time management, and soft skills such as communication and self-efficacy. This is corroborated by research highlighting that involvement in such

clubs improves students' academic motivation, critical thinking, and school engagement ("Impact of Extracurricular Activities...", 2024; Mabula & Salaam, 2012).

Holistic development in Tanzania is deeply tied to moral and spiritual education. Mseli and Ilomo (2021) and Mgonda (2020) describe how religious programs—including chapel exercises, religious clubs, and voluntary service—are central to instilling discipline, self-control, and moral values. School rules and moral teachings serve as a foundation for character formation, although some studies note tension between academic priorities and moral development (Mgonda, 2020). Social clubs and peer interaction are linked to improved social skills and reductions in delinquent behavior, supporting both moral and behavioral development (Clement & Mwila, 2023).

A distinctive feature of holistic development in Tanzania is the emphasis on practical and leadership skills gained through production-oriented and leadership activities. Engagement in agricultural and environmental projects equips students with hands-on skills to address societal challenges such as unemployment, food insecurity, and waste management ("Impact of Extracurricular Activities...", 2024). Mohamed and Osaki (2022), as well as Mulokozi and Mwemezi (2024), highlight the importance of student involvement in academic planning, decision-making, and leadership roles for fostering independence, administrative skills, and personal motivation. These activities are typically voluntary but are sometimes structured by school leadership to maximize student engagement and development.

Despite these benefits, multiple studies point to persistent challenges that limit the full realization of holistic development. Resource constraints—including limited facilities, lack of teacher training, and insufficient funding—are common barriers, particularly for female students and those in under-resourced schools (Mohamed & Osaki, 2022; Clement & Mwila, 2023). Teacher and stakeholder involvement are identified as key success factors, emphasizing the need for ongoing professional development and community engagement (Lyoba & Mwila, 2022). Integration of extracurricular activities with the academic curriculum and alignment with societal needs are also deemed critical for sustainability and effectiveness (Mulokozi & Mwemezi, 2024).

In sum, the literature reveals that holistic student development in Tanzanian secondary schools is best supported by a diverse array of school life activities—sports, academic clubs, leadership opportunities, moral and religious programs, and practical projects. The success of such initiatives depends not only on program availability but also on the quality of implementation, inclusivity, resource allocation, and the engagement of both staff and community stakeholders. Persistent gender and resource disparities, however, continue to limit equitable access and impact, highlighting areas for policy and practical intervention.

Holistic Student Development in Kyrgyz Secondary Schools

The pursuit of holistic student development in Kyrgyz secondary schools is characterized by a focus on innovative teaching methods, student empowerment initiatives, and the integration of real-life learning tasks. Unlike more established systems with long traditions of extracurricular engagement, the literature from Kyrgyzstan points toward emergent practices aiming to address issues of motivation, practical skill development, and broader life competencies in the face of changing social and educational expectations (Madmuratova, 2024; Omorov & Emilbek Uulu, 2021; Tagaeva, Turganbaeva, & Talipov, 2023).

A key theme in recent research is the need for methodological innovation in teaching and school organization to counteract declining student motivation and interest. Madmuratova (2024) details how schools in Kyrgyzstan are increasingly experimenting with new approaches to managing methodological work, such as collaborative planning among teachers and the adoption of student-centered instructional models. While the specifics of these innovations are not always clearly articulated, the intent is to create more engaging educational environments that respond to students' needs and preferences. This drive for innovation reflects both the recognition of traditional methods' limitations and a desire to make learning more relevant to the realities faced by Kyrgyz youth. However, empirical evidence regarding the direct impact of these innovations on holistic development remains limited, as most accounts are conceptual or descriptive rather than based on outcome measurements.

Another prominent approach to fostering holistic development involves student empowerment programs, often characterized by cooperation among parents, teachers, and broader school collectives. Omorov and Emilbek Uulu (2021) discuss how empowerment initiatives, which include programs to strengthen parent-school communication and encourage student participation in school decision-making, are believed to promote personal growth, social responsibility, and moral development. Although these programs intuitively align with holistic educational objectives, there is a notable lack of empirical evaluation or standardized measurement of their outcomes. Barriers such as low parent participation and a lack of incentives for engagement are cited as ongoing challenges, potentially limiting the reach and impact of these initiatives. Despite these challenges, the literature suggests that greater student agency and family involvement are valued as important contributors to holistic development, even if such impacts remain largely inferred rather than explicitly documented.

A distinctive strategy identified in the Kyrgyz context is the integration of real-life tasks into subject lessons, especially in mathematics and geometry. Tagaeva et al. (2023) describe how competency-based learning approaches that involve students in composing and solving authentic, real-world problems can help foster not only academic competencies but also practical life skills. This

approach is intended to bridge the gap between theoretical knowledge and everyday application, empowering students to take ownership of their learning and to see its relevance beyond the classroom. While the potential for supporting key competencies and student autonomy is highlighted, again, the literature lacks robust measurement or longitudinal studies demonstrating actual gains in holistic development outcomes. Outcomes such as enhanced problem-solving ability, increased motivation, and practical skill acquisition are primarily inferred from program descriptions and qualitative observations.

Across all three studies, there is a shared recognition of the importance of student-centered, innovative, and real-life relevant activities as vehicles for holistic student development. Teachers play a consistent role as facilitators and co-learners, while parents and school collectives are identified as important stakeholders in the empowerment process (Madmuratova, 2024; Omorov & Emilbek Uulu, 2021; Tagaeva et al., 2023). Nevertheless, several limitations pervade the literature. Methodological transparency is often lacking, with little detail on how activities are implemented or assessed. The concept of “holistic development” is variably defined and seldom operationalized in measurable terms. Furthermore, there is a notable absence of systematic, empirical research on the effectiveness of these interventions—most evidence remains conceptual, descriptive, or anecdotal.

In sum, while the literature points to promising practices for advancing holistic student development in Kyrgyzstan—including methodological innovation, student empowerment, and competency-based learning—the field is still in a formative stage. Stronger empirical research, clear definitions, and robust outcome assessments are needed to substantiate the contributions of these initiatives and inform policy and practice in secondary education.

Holistic Student Development in Indonesian Secondary Schools

Holistic student development is increasingly recognized as a core objective of secondary education in Indonesia, driven by national priorities to nurture well-rounded citizens capable of thriving in a rapidly changing world. Recent literature highlights that Indonesian schools employ a wide range of structured, values-based, and project-oriented activities to foster not only academic achievement, but also character, life skills, and social responsibility (Fatimah, 2020; Wahyudi et al., 2023; Laghung, 2023).

One of the most established and widely documented approaches to holistic development in Indonesia is the implementation of structured scouting programs. Fatimah (2020) demonstrates that weekly, well-organized scouting activities at vocational high schools promote the acquisition of essential life skills such as leadership, independence, and teamwork, while strengthening community interaction and reinforcing national values. This finding is echoed by Sariipudin (2014), who observes that integrating living values into both curricular and extracurricular scouting activities helps students internalize

discipline, cooperation, honesty, and creativity. Scouting is typically regular, practical, and reflective—offering students opportunities to face real-world challenges and develop a robust moral compass.

A strong focus on values integration characterizes both curricular and extracurricular approaches in Indonesian secondary education. Several studies emphasize that blending character and moral education into daily school life is central to holistic development (Dahliana, 2017; Laghung, 2023). For instance, Saripudin (2014) and Laghung (2023) note that integrating national character values, such as those found in the Pancasila student profile, with subject learning and school activities fosters discipline, cultural appreciation, and religious respect. The school culture, underpinned by clear vision and mission statements, is identified as a key environmental factor supporting this integration (Wahyudi et al., 2023).

Project-based learning, particularly in the form of differentiated Pancasila projects and culinary arts extracurriculars, is shown to further enhance holistic development by bridging classroom knowledge with practical life skills (Sayuti et al., 2023; Usman et al., 2023). These activities encourage students to engage in community-oriented tasks, develop confidence and independence, and apply critical reasoning in real-world contexts. Culinary programs, as described by Sayuti et al. (2023), are especially effective at fostering practical skill acquisition and social engagement, as students contribute to and learn from their communities.

In Islamic and pesantren-based (boarding) schools, religious activities and spiritual mentoring play a critical role in shaping students' moral development (Sahid et al., 2021; Firdaus et al., 2023). Weekly mentoring sessions, religious study groups, and community service are structured to instill discipline, responsibility, tolerance, and a sense of belonging. These spiritual programs not only support character building but also help students navigate adolescence with a strong ethical foundation.

Several studies identify school-based management and collaborative approaches as essential for fostering holistic development (Wahyudi et al., 2023; Usman et al., 2023). Programs like “Student Day” and differentiated project learning provide students with decision-making responsibilities and leadership opportunities, enhancing group solidarity and preparing them for civic engagement. The success of these initiatives is closely tied to regular scheduling, effective teacher guidance, and strong community involvement.

Despite the breadth of programs, studies also highlight several implementation challenges. Low student motivation and resource constraints—particularly in terms of budget, facilities, and scalability—remain barriers to broad participation and impact (Wahyudi et al., 2023; Fatimah, 2020). Success depends heavily on consistent scheduling, cultural relevance, community participation, and teacher support, as well as alignment with national character and educational goals (Laghung, 2023).

The Indonesian literature demonstrates that a multifaceted approach—combining structured scouting, values-based curricula, project-based learning, and spiritual development—can significantly advance holistic student development in secondary schools. While outcomes such as life skills, character, discipline, and social competency are widely reported, continued attention to implementation quality and resource allocation is necessary to ensure that all students benefit equitably from these programs.

The Present study

This study therefore examines the impact of the NAMA Foundation's interventions, designed specifically to enhance holistic student development, at selected secondary schools in Indonesia, Kyrgyzstan, and Tanzania. By comparing baseline data from 2021 with post-intervention data from 2023, it aims to provide empirical insights into how structured extracurricular and out-of-school participation contributes to overall student growth in diverse, resource-constrained settings.

METHODOLOGY

Study Design and Context

This study utilized a longitudinal mixed-methods design to assess the impact of NAMA Foundation's interventions on holistic student development across secondary schools in Indonesia, Tanzania, and Kyrgyzstan. The research drew upon both quantitative and qualitative data sources, with a primary focus on student self-report questionnaires administered at two key time points: baseline (2021) and mid-term (fourth quarter of 2022).

A total of 63 secondary schools—selected to represent diverse contexts across the three countries—participated in the study. Schools included public, private, and religious institutions affiliated with the NAMA Foundation. Within each school, students from various grade levels were invited to complete the student questionnaire. Data collection covered a cohort of students, teachers, and school leaders, with country-level coordination to ensure consistency and comparability of results.

Instrumentation

The primary data collection instrument was the Student Questionnaire, developed and validated by the NAMA Foundation research team in alignment with the NAMA Index for Education rubric. The questionnaire consisted of 12 items addressing various domains of school life and holistic development, including participation in extracurricular activities, community engagement, leadership, teamwork, school attendance, and personal responsibility. Students were asked to respond to the question “Since I started school this year, I have participated in 24.”

followed by the activity. Items were measured on a 5-point Likert scale, where 4 = always, 3 = often, 2 = sometimes, 1 = very little/almost never, and 0 = never. The detailed activities are presented in Table 1.

Table 1: Questionnaire Items

Label	Items	domain
SLS11	Since I started school this year, I have participated in: activities (sports, games, dance, music, drama)	Sports & Games
SLS12	university or workplace visits to learn about job opportunities.	university or workplace visits
SLS13	competitions-outside my school (such as Math, chess, soccer).	competitions-outside school
SLS14	science fairs or exhibitions.	science fairs
SLS15	school club (for example journalism club/garden club/computer club).	school clubs
SLS21	activities to help my community such as cleaning up, handing out food parcels.	Community programs
SLS22	activities where I have to work with other students as a team.	Team activities
SLS23	activities that help to make the school a better place.	School improvement
SLS24	activities where every students' opinion is important even if it is different from mine.	Diverse opinions

The questionnaire's language and content were reviewed for cultural appropriateness and clarity in each context. Participation was voluntary and responses were anonymous to encourage honest feedback. The items were reported to have good validity and reliability by Ssekamanya & Mahmood (2024) who examined its constructs using both Cronbach's Alpha and Composite Reliability (CR). In their study, they presented the reliability and validity outcomes, including the factor loadings for the items, for both the overall sample and each country-specific subsample. All Alpha coefficients and CR values for the overall sample exceeded the recommended threshold of 0.700. However, the Alpha and CR values demonstrated some variation across the individual country samples (Indonesia, Kyrgyzstan, and Tanzania). The Average Variance Extracted (AVE) and CR values were all above or near the suggested cutoffs of 0.500 and 0.700, respectively, thereby indicating that the constructs exhibited satisfactory convergent validity.

Data Collection Procedures

The initial round of data collection was conducted from April to June 2021 (baseline). School coordinators, supported by trained assessors and in-country consultants, administered the questionnaire to students in a classroom setting. Assessors ensured that students understood the instructions and that their responses remained confidential. The second round of data collection (mid-term assessment) occurred between September and October 2022. The same procedures and instruments were used to allow for direct comparison with baseline data.

Additional quality control measures were implemented, including improved training for assessors, logistical support from local coordinators, and a simplified reporting process to enhance data reliability and completeness. Additional Data Sources included Triangulation was achieved by integrating data from Lesson observations and classroom rubrics (for related research questions), Interviews with school leaders, teachers, and community members, Document review (school policies, improvement plans, attendance records), and Stakeholder surveys (teachers, parents, and assessors). In this paper we only present results of the students' questionnaire related to holistic student development.

Quantitative data from the student questionnaires were compiled and analyzed using descriptive and inferential statistics. Comparisons between baseline and mid-term results were conducted to assess changes in student participation and perceptions related to holistic development. Where appropriate, performance bands (1 = limited, 2 = developing, 3 = achieved, 4 = exemplary) were used to interpret progress, following the NAMA Index for Education framework.

All procedures adhered to international ethical standards for research with human subjects. Participation was voluntary, informed consent was obtained from students and/or their guardians, and confidentiality of individual responses was maintained throughout the study.

RESULTS

Before comparing the means, it is important to check whether the groups had similar variances using Levene's test. It was found that the test was significant for all of the items ($F= 0.019$, $p = 0.0890$). This confirmed that the assumptions of equal variance were not met.

Independent t-tests were conducted to compare the results of the midterm assessment (2022) with baseline data (2021) to determine the effectiveness of NAMA's intervention in enhancing students' holistic development through engagement in co-curricular and out-of-school activities. Separate t-tests were run for the Tanzanian, Kyrgyz, and Indonesian samples respectively (Table 2). Statistical significance was calculated at $p < 0.05$ with

95% confidence intervals. For the Tanzanian sample, items SLS12 (participation in university or workplace visits) and SLS 13 (participation in competitions-outside school) were not significant. The rest of the items were significant, yielding *t* value ranging from 2.587 to 12.433. For Kyrgyzstan, all of the items were significant, yielding *t* values ranging from 4.252 to 13.337. Similarly, for Indonesia, all of the items were significant, yielding *t* values ranging from 2.995 to 15.602.

This means that with the exception of “participation in university or workplace visits” and “participation in competitions-outside school” for the Tanzanian students, there was a statistically significant improvement in students’ engagement in co-curricular and out-of-school activities across the three nations. These results indicate that the levels of students’ holistic development through engagement in co-curricular and out-of-school activities were significantly higher in the midterm assessment (2022) compared to baseline data (2021). This demonstrates the effectiveness of NAMA’s intervention in this domain.

To determine the practical importance of these results, we additionally calculated the effect size using the formula: $Cohen's\ d = (M2 - M1) / SD_{pooled}$, where: $SD_{pooled} = \sqrt{((SD12 + SD22) / 2)}$. A small Cohen's *d* of around 0.2 indicates a small effect, a medium effect is around 0.5, and a large effect is around 0.8. A Cohen's *d* of 0.4 in an independent samples *t*-test indicates a small to medium effect size (Gülkesen, et al., 2022). As mentioned above, there was no effect on the items related to “participation in university or workplace visits” and “participation in competitions-outside school” for the Tanzanian students. For the Tanzanian students, there was a large effect size for “participation in Community programs” and “participation in Team activities”; a medium effect for “participation in School improvement activities” and “participation in activities involving Diverse opinions”; and a small to medium effect for “participation in Sports & Games”, “science fairs” and “school clubs”. For Kyrgyzstan, there was a large effect for “participation in Sports & Games”, “participation in Community programs” and “participation in Team activities” and “participation in activities involving Diverse opinions”; a medium effect for “participation in School improvement activities,” “school clubs”, “participation in Community programs” and “university or workplace visits”. For the Indonesian students, there were large effects for “participation in Sports & Games”, “participation in school clubs”, “participation in Community programs” and “participation in Team activities”, “participation in activities involving Diverse opinions” and “participation in School improvement activities”; a medium effect for “participation in science fairs”; and a small to medium effect for “university or workplace visits” and “participation in competitions-outside school”.

Table 2: T-test Results

TANZANIA										KYRGYZIAN										INDONESIA									
Items	Mean	SD	t	DF	P-value	d	Mean	SD	t	DF	P-value	d	Mean	SD	t	DF	P-value	d	Mean	SD	t	DF	P-value	d					
SLS11 Sports & Games																													
2021	1.54	.880					2.13	.686					2.36	.536					2.36	.536									
2022	1.80	1.195	2.801	464.003	.005	0.28	2.88	1.044	9.489	514	.000	0.85	3.16	.806	15.602	626.288	.000	0.83	3.16	.806	15.602	626.288	.000	0.83					
SLS12 university or workplace visits																													
2021	1.06	.915					1.73	.940					1.70	.802					1.70	.802									
2022	1.22	1.162	1.642	462.440	.101		2.27	1.367	5.215	465.512	.000	0.50	2.06	1.156	4.752	641.232	.000	0.37	2.06	1.156	4.752	641.232	.000	0.37					
SLS13 competitions-outside school																													
2021	.58	.829					1.71	.872					1.40	.739					1.40	.739									
2022	.66	1.010	.929	470.082	.353		2.21	1.258	5.248	467.509	.000	0.50	1.60	1.004	2.955	661.664	.003	0.22	1.60	1.004	2.955	661.664	.003	0.22					
SLS14 science fairs																													
2021	1.16	1.020					1.54	1.059					2.04	.924					2.04	.924									
2022	1.44	1.364	2.587	451.917	.010	0.24	2.02	1.475	4.252	468.337	.000	0.39	2.65	1.334	7.136	840.943	.000	0.54	2.65	1.334	7.136	840.943	.000	0.54					
SLS15 school clubs																													
2021	1.30	1.028					2.09	.794					2.04	.622					2.04	.622									
2022	1.59	1.372	2.646	462.253	.008	0.25	2.78	1.168	7.891	462.882	.000	0.72	2.70	.966	10.899	614.874	.000	0.81	2.70	.966	10.899	614.874	.000	0.81					
SLS21 Community programs																													
2021	2.32	.584					2.53	.695					2.66	.652					2.66	.652									
2022	3.13	.846	12.433	433.493	.000	1.12	3.50	.943	13.337	472.769	.000	1.18	3.57	.896	15.538	657.992	.000	1.16	3.57	.896	15.538	657.992	.000	1.16					
SLS22 Team activities																													
2021	1.88	.89					2.29	.78					2.45	.755					2.45	.755									
2022	2.39	1.270	5.041	438.412	.000	1.06	3.16	1.13	10.272	469.408	.000	0.91	3.24	1.10	11.220	638.588	.000	0.83	3.24	1.10	11.220	638.588	.000	0.83					
SLS23 School improvement																													
2021	1.76	.791					2.09	.730					2.42	.578					2.42	.578									
2022	2.21	1.153	5.025	432.122	.000	0.50	2.72	1.109	7.564	444.396	.000	0.67	3.24	.844	15.230	636.551	.000	1.14	3.24	.844	15.230	636.551	.000	1.14					
SLS24 Diverse opinions																													
2021	1.92	.766					2.07	.689					2.30	.646					2.30	.646									
2022	2.43	1.127	5.837	426.643	.000	0.54	2.78	1.031	9.192	448.355	.000	0.83	3.07	.951	12.867	833.909	.000	0.95	3.07	.951	12.867	833.909	.000	0.95					

DISCUSSION AND CONCLUSION

The present study assessed the impact of NAMA Foundation's interventions on holistic student development by comparing baseline data (2021) and mid-term data (2022) across secondary schools in Indonesia, Kyrgyzstan, and Tanzania. The analysis revealed significant improvements in students' engagement in structured extracurricular and out-of-school activities—especially in domains linked to sports and games, clubs, community programs, teamwork, diverse opinions, and school improvement. Effect sizes were large for many domains, particularly in Indonesia and Kyrgyzstan, and moderate to large for Tanzania (with the exception of university/workplace visits and competitions-outside school for Tanzanian students, which showed no significant effect).

These findings resonate strongly with the international literature emphasizing the pivotal role of extracurricular participation in fostering 21st-century competencies and holistic development. Prior research has consistently documented that engagement in sports, leadership, and academic clubs builds not only academic skills but also teamwork, social responsibility, and personal agency (Açak et al., 2023; Forneris et al., 2015; Ahmed et al., 2024; Mohamed & Osaki, 2022). Our results affirm these conclusions, showing that NAMA's interventions led to statistically significant gains in students' participation in such activities across all three countries, indicating successful alignment with established best practices (Berti et al., 2023; Prabowo et al., 2025).

The significant gains for Tanzanian students in activities related to sports, clubs, teamwork, and community engagement confirm and extend findings from national studies. Lyoba and Mwila (2022), as well as Mseli and Ilomo (2021), previously highlighted that sports and physical education boost confidence, discipline, and school attendance, while Mohamed and Osaki (2022) and Clement and Mwila (2023) emphasized the positive impacts of club participation on creativity and motivation. However, our study found little or no improvement for Tanzanian students in participation in university or workplace visits and external competitions, echoing prior reports about logistical barriers and limited resources for such activities, especially in under-resourced and rural settings (Clement & Mwila, 2023). Gender disparities and infrastructural constraints continue to be major barriers to equitable access, as earlier noted by national researchers.

For Kyrgyz students, significant gains were observed in all measured domains, with the largest effects in sports, teamwork, community programs, and valuing diverse opinions. This finding aligns with the literature documenting the recent emergence of innovative, student-centered practices in Kyrgyz schools, such as student empowerment and the integration of real-life tasks in learning (Madmuratova, 2024; Tagaeva et al., 2023; Omorov & Emilbek Uulu, 2021). While these approaches are still developing and evidence on their efficacy remains limited, our study provides rare quantitative support for their effectiveness, suggesting that well-supported interventions can catalyze broader participation and holistic growth—even in settings where such

programming is relatively novel. However, it should be noted that Kyrgyz studies often lack methodological rigor and standardized outcome measurement; thus, our findings contribute a much-needed empirical dimension to this literature.

The Indonesian sample exhibited significant and large gains across almost all domains, corroborating the extensive national literature on structured, values-based, and project-oriented school activities (Fatimah, 2020; Saripudin, 2014; Wahyudi et al., 2023). As in previous research, scouting, club participation, and project-based learning were especially impactful, leading to improvements in self-confidence, teamwork, and critical reasoning. Moreover, our findings reinforce the importance of school-based management and integration of character values across all school life activities, as recommended by Saripudin (2014), Dahliyana (2017), and Laghung (2023). However, low student motivation and resource limitations, as previously identified (Fatimah, 2020; Wahyudi et al., 2023), persist as challenges, warranting continued focus on implementation fidelity and sustainability.

The cross-country pattern of results supports the proposition that well-structured extracurricular and out-of-school programs—when backed by clear strategy, inclusive access, and adequate resources—can drive substantial improvements in holistic student outcomes (Berti et al., 2023; Ahmed et al., 2024). However, variations by country and activity domain underscore the persistent influence of context: cultural norms, available infrastructure, and resource allocation continue to mediate both program reach and impact (Clement & Mwila, 2023; Madmuratova, 2024). While Indonesia and Kyrgyzstan demonstrated broad-based improvements, Tanzania's continued challenges in facilitating university/workplace visits and external competitions illustrate the ongoing struggle to extend benefits to all domains of student life.

Our study's findings also extend the literature by providing empirical evidence of effect sizes for specific types of school life activities, an area where prior studies have often been either descriptive or limited to single contexts (Prabowo et al., 2025; Tagaeva et al., 2023). Furthermore, the triangulation of self-report data with qualitative observations and document review enhances the robustness of our conclusions and addresses common limitations of cross-sectional or correlational research.

Limitations and Future Directions

Nevertheless, this study faces limitations common in educational research across low- and middle-income countries, including reliance on self-report measures, possible social desirability bias, and the challenges of ensuring implementation fidelity across diverse contexts. Furthermore, while significant progress was made in many domains, areas with persistent challenges—such as external competitions and career exposure in Tanzania—require additional intervention and research.

Future research should focus on longitudinal tracking of student cohorts, further integration of qualitative data, and evaluation of program sustainability and scalability. Efforts should also be made to address the specific barriers faced by marginalized student groups, ensuring that the gains in holistic development are truly equitable and far-reaching.

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