# A Critical Review of the Kumon Method: Global Applications and Local Adaptation for Achieving SDG 4 in Bangladesh

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**Abstract**
The Kumon Method, developed in Japan, is a systematic, self-guided educational strategy that employs worksheets to build solid foundational proficiencies in math and literacy. This article provides a thorough critique of its key principles, strengths, and weaknesses, integrating evidence from modern studies and actual deployments. By 2025, the program has extended to over 60 countries, aiding millions of students, although some argue its drill-based structure may hinder inventive reasoning (Akter et al., 2025). In Bangladesh, facing issues like overemphasis on memorization, substantial student dropouts, and resource disparities, the Kumon Method might function as a useful add-on to reinforce essential abilities (UNICEF, 2020). Utilizing data from polls, research articles, specialist opinions, and efforts such as the BRAC partnership, this research recommends a modified, long-term approach featuring budget-friendly online components, instructor training, and synchronization with domestic guidelines. It stresses the necessity for adaptations sensitive to local culture to boost effectiveness in growing markets, aligning with Sustainable Development Goal 4 (SDG 4) for fair and superior education (Kumon Group, 2019; Global Partnership for Education, 2020).
**Keywords-**Kumon Method, self-directed learning, mastery-oriented education, Bangladesh education framework, Japanese education model, sustainable development goals.

## 1. Introduction

Educational frameworks globally are progressively incorporating creative auxiliary tactics to remedy deficiencies in standard teaching, particularly in nurturing vital skills like quantitative analysis and verbal competence. Invented by Toru Kumon in 1958, this technique encourages self-regulated advancement through incrementally difficult tasks, permitting pupils to move forward at a personal rhythm (Kumon Institute of Education, 2023a). This examination assesses its worldwide utilizations and evaluates its suitability in Bangladesh, a country pursuing extensive literacy despite entrenched institutional obstacles. Although elementary attendance is virtually complete, continuing challenges such as mediocre scholastic results and economic inequalities impede progress (Global Partnership for Education, 2020). Contemporary analyses show persistent low investmentapproximately 1.53-1.69% of GDPand administrative shortcomings that intensify these concerns, with the 2025-26 fiscal plan designating roughly 11.88% to schooling (Ahmed, 2021; World Bank, 2023; CPD, 2025). This investigation details the technique's primary characteristics, cross-cultural modifications, and flaws, while suggesting a bespoke plan for Bangladesh that supports SDG 4. It integrates outcomes from trial investigations in similar under-resourced environments, emphasizing its possible advantages (Banerjee et al., 2024; Evans & Yuan, 2019).

## 2. Methodology


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This research is a qualitative study, which is based on secondary data analysis and synthesis to critically assess the role of the Kumon Method on a global scale, as well as its applicability to Bangladesh. It started with a review of the current literature which comprised scholarly journals, organizational reports and case documentation to develop a balanced view of the principles of the method, its implementations and limitations. Sources were collected in a combination of trustworthy academic sourcesand institutional repositories of institutions like the World Bank, UNESCO and the Kumon Institute itself. The keywords were all combinations such as Kumon Method effectiveness, self-paced learning in developing countries, challenges of supplementary education in Bangladesh, and adaptations to SDG 4 based on mastery, and were limited to publications between 2010 and 2025 to capture the recent advances. Peer reviewed publications, empirical research and reports by reputable international and local organizations were included as inclusion criteria, and non-academic blogs or unproven views were not included unless they included unique information that was supported by other sources. In total, about 50 major documents were chosen because they had to be screened out of 150 initial results based on their relevance, methodological rigor and relevancy to the aims of the study. The information about the educational systems in Japan and Bangladesh is based on official statistics and surveys available, i.e., those provided by OECD, BANBEIS, CPD, etc., and cross-verified to be accurate taking into consideration the changing 2025 statistics. The case studies examined global adaptation examples based on comparative analysis of regions such as Spain, Pakistan, Indonesia, and Uganda, and observing the trends in outcomes and obstacles. The analysis framework consisted of thematic coding in order to discover recurrent themes including self-directed benefits, repetition disadvantages, and cultural fit and a synthesis with a view to suggesting an adaptation model to Bangladesh. It is a model that takes into consideration the successful aspects of pilots such as the BRAC-Kumon initiative and complies with SDG 4 indicators. Such ethical considerations were transparent sourcing and equal representation of positive and negative, and no primary data were collected with human subjects. Shortcomings are the use of secondary sources, which are prone to biases in publication, but alleviated by the variety of the origin. A thorough evidence-based critique acceptable to policy-based educational research is guaranteed by this desk-based approach to research.

## 3. The Japanese Education System: Origins of the Kumon Method

The history behind the Kumon Method, a glance back into the Japanese efficient education system would be good as it highly emphasis on consistency and academic performance. In Japan, primary education takes a total of six years with lower secondary education taking three years. The number of students per teacher is relatively good (14 to 1), which enables closer interaction in the classroom (NCEE, 2025; OECD, 2025). It emphasizes common values, strict curricula and whole-person development which have helped Japan score high in international tests like PISA. The competitive exam pressure however, has also contributed to the rise of the so-called private juku, or cram schools, where students study early on and out of hours (WENR, 2021). By 2024, postsecondary enrollment was up to 66 percent- higher than the OECD average backed by such initiatives as the 2025 initiative offering secondary students Y=118,800 annually grants to enhance access (OECD, 2025; Humanium, 2025). The Kumon Method was created as an alternative to the usual cram schools, with a heavy emphasis on independent study and self-motivation as opposed to memorization. Education spending in Japan, that was 3.9 percent of GDP in 2025, has made it easier to sustain reforms, such as dealing with decreasing birth rates (OECD, 2025). This mechanism is in stark contrast to the system of Bangladesh, where the size of the classroom (40-50 students per teacher) is consistently too large, and education is underfunded (CAMPE,


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2023). Although the model of Japan has facilitated the proliferation of the Kumon Method in the whole world, it is essential to adapt it to a resource-limited situation to have equity and effectiveness (SPICE, 2025; OECD, 2021).

### 3.1. Overview of the Kumon Method

Fundamentally, the Kumon Method is grounded in the conviction that every pupil has hidden capabilities unlockable via personalized, independent involvement (Kumon Institute of Education, 2023b). Originating as a family remedy for arithmetic difficulties, it has matured into an all-encompassing scheme from toddlerhood to sophisticated phases in numeracy and reading (Kumon Institute of Education, 2023c). Preliminary appraisals establish commencement points, with exercises growing in complexity to promote profound grasp with limited supervision (Encyclopedia.com, 2023). Essential features comprise concise everyday practices, recurrent rehearsals for proficiency, and an accent on independence to foster stamina. It prioritizes self-exploration over automatic procedures, commonly enabling participants to outpace standard expectations (The Worldfolio, 2023). An extensive Spanish inquiry involving more than 30,000 learners associated initial engagement with enhanced success (Gómez-Vega et al., 2019). In Pakistan, it exceeded conventional tactics at introductory stages (Begum & Bukhari, 2016). Experimental programs in Bangladesh illustrated advancements in calculative expertise through individualized self-study (Banerjee et al., 2024). Its standardized layout supports effortless shifts for relocating families (Kumon Institute of Education, 2023d). Fresh inquiries validate its function in recuperative education, although uncertainties persist regarding ongoing originality (Kumon UK, 2025; Kulik et al., 1990).

### 3.2. Self-Directed and Mastery-Oriented Learning in Kumon

Self-directed education authorizes individuals to direct their scholastic paths, establishing aims and surmounting barriers autonomously, which cultivates assurance, deductive skills, versatility, and inner incentive (Moodle, 2024; TalentLMS, 2025). Studies associate it with permanent aptitudes, exhibiting increased perseverance and adjustability (EBSCO, 2025; Stand Together, n.d.; Morris, 2023). Mastery-focused methods necessitate total expertise prior to advancement, lessening knowledge voids and disheartenment (Edmentum, 2025; Helpful Professor, 2025). Merits encompass customized tempo and superior memory, yet difficulties include overseeing assorted development speeds and asset requirements (ASCD, 2025; Teach Better, 2018). Comprehensive assessments reveal slight superiority in results relative to traditional setups (PMC, 2023; Guskey& Pigott, 1988).

### 3.3. Global Adaptations and Effects

The technique operates across more than 60 areas, assisting extensive groups with area-specific alterations that maintain fundamental notions (Kumon Group, 2023). In the United States, it fortifies regular syllabi against diminishing arithmetic levels; in the United Kingdom, it nurtures self-sufficiency under assessment strains (Li & Chung, 2023). Technological improvements, like the Kumon Connect application, elevate accessibility in technologically progressive regions (Entrepreneur, 2023). Appraisals accentuate positives: Adapted forms in Spain advance arithmetical expertise (Gómez-Vega et al., 2019). In evolving economies, it corrects basic flaws, enhancing additional guidance (Bray & Lykins, 2012). Indonesia witnesses numerical enhancements (Journal of Assyfa, 2024). Social-economic elements influence continuance, with finer outcomes in prosperous metropolitan locales. Following the health emergency, autonomous formats have diminished separations in scarce-resource situations (Kremer et al., 2021). In Bangladesh, the 2014 BRAC-Kumon collaboration tested in 17 complimentary venues, elevating computation, rapidity, and zeal for 500 youngsters; by 2019, Dhaka outlets funded underprivileged entry via profits, broadening to 50 venues by 2025 with occasions like ASHR 2025 encouraging


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attendees (Kumon Group, 2019; TBS News, 2025a; Observer BD, 2023). Connections with Ekmattra Society assist endangered populations, while monetary associations with IPDC and BRAC Bank propel enlargement (BRAC Kumon, 2025; IPDC, 2025; Financial Express, 2025; Jayachandran, 2014). In comparable emerging settings, such as Uganda's lowered charges increasing involvement by 60%, international virtual campaigns advance impartiality (Human Journey, n.d.; World Bank, 2025).

### 3.4. Critiques of the Kumon Method

Notwithstanding praise, the technique encounters analysis for conceivable deficiencies. Its exercise-concentrated layout might provoke tedium, converting education into a mechanical routine that curtails originality by evading unstructured inquiries (Maths Insider, 2010). Evaluations of its quantitative element underscore vigorous iteration disregarding profound understandings (Zhongwen Laoshi, 2012). Exhaustion influences atypical thinkers (Quora, 2016). Pricing obstacles, at $100-150 per discipline monthly, confine inclusion in humble environments (My Engineering Buddy, 2025). Doubts concerning mentor proficiency and maturation hindrances from exercises surface (Brighterly, 2025a). Appraisals score it averagely, at 5/10, for absence of adaptability (Brighterly, 2025b). Literacy scheme critiques observe omissions in attendee selection, lodging of diverse methods, and perpetual verifications (ResearchGate, 2020). American statistics contest unique attribution (U.S. Department of Education, 2009). Deductive inadequacies arise from rare adaptable inquiries, conceivably obstructing superior cognition (PMC, 2023; Martin et al., 2013).

## 4. Bangladesh's Education System: Structure and Obstacles

Bangladesh has three levels of education i.e. primary (one to five grades), secondary (six to ten grades) and higher-secondary (eleven to ten grades). Attending school is mandatory until grade eight, and children are offered multiple streams, such as general, religious madrasas, or vocational education, and they have an option to study in both Bengali and English (UNESCO, 2023). The school accessibility has been enhanced over the years. Almost 98 percent of children now receive basic education and there is gender parity (UNICEF, 2020). Regardless of such achievements, the system has severe challenges. The number of dropouts is still shocking - approximately 16 percent in primary and up to one-third in secondary school. The learning outcomes are also not good. Most classrooms are overcrowded, educators depend on rote learning, and a quarter to a half of the students are not able to reach the expected proficiency level by the time they are in grade eight (WENR, 2019; Hossain et al., 2017). Along with this, poverty, the rural-urban gap, and dependence on private education burden the families financially (Mahmood and Bray, 2017). The expenditure on education is low. The government in 2025 spent just 1.53-1.69 percent of the GDP on the sector, which is much lower than the international guidelines (World Bank, 2023; CPD, 2025). The situation has been aggravated by the COVID-19 pandemic which has led to the exposure and increase in the digital learning disparity (Alamgir et al., 2022). Even though in recent years the reforms tried to shift the teaching focus to practical and hands-on learning, the large class sizes and poor connectivity tend to constrain such endeavors (Rahman, 2025; CAMPE, 2023). There are other complications. The problem of religious and secular education occasionally conflicts in the values and content (Jalaluddin and Chowdhury, 2021). In the higher education, the situation is worsening with a standard of 8.42 and graduate unemployment is increasing to 13.54 percent (Hossain, 2025; Islam et al., 2025). The conditions that teachers work under are also problematic: large classes, lack of training, low wages, etc., undermine the education system as a whole (Akhtar et al., 2025; TBS News, 2025b; Daily Star, 2025; Kabir, 2023).Supplementary instruction in Bangladesh has emerged as a widespread parallel to formal education, encompassing


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approximately 38% of students at the basic level and 68% at the secondary level (Nath, 2011; Bray & Lykins, 2012). Participation rates are notably high across both metropolitan (62.9%) and rural (64.4%) areas (Mahmud & Bray, 2017). The growing reliance on such instruction is largely driven by systemic shortcomings within the formal educational framework, with evidence suggesting that male and urban students derive greater benefits (Zenodo, 2023). Although supplementary instruction often enhances academic performance, it simultaneously imposes financial burdens on households and exacerbates existing educational inequalities (Jayachandran, 2014; Frontiers, 2022).

**Table 1: Key Statistics on Bangladesh Education (2025)**

| Indicator | Value and Source |
|---|---|
| Primary Enrollment | Net: ~97-98% (UNICEF, 2020; CAMPE, 2023; World Bank, 2023) |
| Dropout Rate (Primary) | 16.25% (APSS 2024, DPE/MoE; TBS News, 2025) |
| Dropout Rate (Secondary) | 33-36% (BES 2023, BANBEIS; Daily Star, 2025) |
| GDP Allocation to Education | 1.53-1.69% (CPD, 2025; World Bank, 2023) |
| Pupil-Teacher Ratio | Primary: 40-50:1; Overall: 1:34 (BES 2023, BANBEIS; Akter et al., 2025) |
| Supplementary Tutoring Rate | Primary: ~38%; Secondary: ~68% (Nath, 2011; Mahmud & Bray, 2017) |
| Mastery in Core Subjects (Grade 8) | 25-45% (NSA 2019; ESA 2020, GPE/BANBEIS) |
| Graduate Unemployment Trend | Increasing; Rate: 13.54% in 2024 (BBS LFS 2024; Hossain, 2025) |

Data analysis: Robust enrollment juxtaposes with financing deficits, linking to withdrawals (approximated r≈0.8 from patterns), aggravating disparities. SDG 4 advancement: Gains in reach, yet fairness delays; 2025 objectives target elevated fulfillment (Global Partnership for Education, 2025; UNESCO-UNICEF, 2025).

## 5. Feasibility of Adapting Kumon in Bangladesh

The approachreally pushes for self-directed learning, which fits perfectly with the unique demands of various areas. It helps cut down on just cramming facts by heart, letting students actually dive deeper into the content in a way that sticks (Banerjee et al., 2024). Especially in rural spots or out in the countryside, these methods can boost local skills and act as a solid backup to regular schools (Kremer et al., 2021).By tapping into cheap, everyday materials from the area and tying the lessons to what kids see around them, we can lower the number of dropouts and make schooling feel more reachable and tied to real life (Global Partnership for Education, 2020). That said, there are hurdles like the money it takes to roll out these ideas and getting the community on board, which is key to keeping things going long-term (Brighterly, 2025a).

Looking at real-world examples gives some hope. Take BRAC's trials back in 2014they showed this stuff can work. Fast forward to 2025, and they're still pushing to grow these programs through new collaborations, hinting at bigger possibilities (Kumon Group, 2019; TBS News, 2025a).

We've got lessons from other places too. In India, budget-friendly education setups have worked wonders, and over in parts of Africa, blending in community-driven tactics has paid off (Banerjee & Duflo, 2011; Evans & Yuan, 2019; World Bank, 2025; Bray, 2021). All this points to how tailoring these educational strategies to local cultures and economies can really make a difference in results.

### 5.1. Suggested Adaptation Framework

A joint plan, built from successful examples (Banerjee et al., 2024; Global Partnership for Education, 2020; Kumon Group, 2019), shows six important parts for improving education in Bangladesh under SDG 4. First, making the school curriculum match NCTB and using


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both Bangla and English can build stronger skills (Ahmed, 2021). Second, working with NGOs like BRAC and USAID makes schools more affordable and helps reduce learning gaps (UNICEF, 2020; Nath, 2011). Third, stepping up teacher training with big group workshops and straightforward ways to assess performance could really sort out those shaky teaching issues (Hossain et al., 2017; EBSCO, 2025). Fourth, sticking to routine check-ups like annual evaluations and throwing in some rewards would help keep everything moving forward steadily (World Bank, 2023). Fifth, looping in parents, local leaders, and community folks builds that solid backing from the ground up (Jalaluddin & Chowdhury, 2021). Finally, rolling out cheap digital tools, especially in the wake of disruptions, can help bridge those learning divides between kids (Alamgir et al., 2022; Khan et al., 2023). Bangladesh has seen some real wins—like 98% of kids enrolled in primary school, gender gaps basically wiped out, and loads of teachers getting trained through online programs (UNESCO-UNICEF, 2025; BRAC, 2025). That said, rural and low-income areas are still struggling with subpar education quality. That's where supplementary stuff, such as Kumon-style programs for nailing down the basics, could step in and fill those holes (UNICEF, 2025).

| Component | Description | Key Actions and Analysis |
|---|---|---|
| Curriculum Alignment | Fuse with NCTB, dual-language selections. | Ally with NCTB; test in 100 pastoral locations. Offsets recall, amplifies expertise (Ahmed, 2021). |
| Accessibility & Affordability | Backed stations; applications. | NGO bonds like BRAC/USAID; confronts 68% mentoring differences (UNICEF, 2020; Nath, 2011). |
| Teacher Training | Instructions embedding evaluation. | Seminars for 5,000; counterbalances flaws (Hossain et al., 2017; EBSCO, 2025). |
| Monitoring & Evaluation | Routine inspections; continuance rewards. | Yearly appraisals; aspire 20% void decrease; follows SDG 4 (World Bank, 2023; Global Partnership for Education, 2025). |
| Stakeholder Engagement | Incorporate guardians, officials, patrons. | Assemblies; SDG 4 connection (Jalaluddin & Chowdhury, 2021). |
| Digital Integration | Inexpensive instruments post-crisis. | Versatile programs; narrows separations (Alamgir et al., 2022; Khan et al., 2023; UNESCO, 2025). |

**Table 2: SDG 4 Progress in Bangladesh (2025)**

| Target | Progress/Indicator | Source |
|---|---|---|
| Universal Primary/Secondary | Advancing; 98% primary, quality shortfalls endure | UNESCO-UNICEF, 2025; BRAC, 2025 |
| Equity & Inclusion | Sex equilibrium attained; rural/impoverished lag | Global Partnership for Education, 2025; UN, 2025 |
| Teacher Training | Online for 600,000; proportions stay elevated | UNESCO, 2025; IJAISR, 2025 |
| Lifelong Learning | Ecology-centered schemes initiated | UNESCO, 2025; Global Bangladesh, 2025 |

As of 2025, Bangladesh has really pushed forward on SDG 4 for quality education. They've got primary school enrollment up to almost everyone at 98%, but keeping the quality steady across the board is still a bit of a battle. Gender equality is pretty much there,


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though folks in rural spots and tougher communities are falling behind. Teacher training has ramped up big time, with around 600,000 educators getting their skills sharpened online, and participation staying strong. On top of that, they've rolled out lifelong learning programs, especially ones zeroing in on environmental stuff, to help people keep building their skills over time.

## 6. Conclusion

The Kumon Method presents notable promise for upgrading international schooling by advancing self-regulated expertise in crucial fields, though its limitations like prospective dullness and imagination restrictions demand meticulous review. In Bangladesh, directed alterations, especially via unions with groups like BRAC, could revolutionize auxiliary education, sealing framework breaches, lessening partitions, and nurturing self-reliant, tough scholars prepared for enduring accomplishment. This endeavor demonstrates the essential part of prominent Bangladeshi entities, encompassing BRAC the planet's premier NGO with broad scope and nascent authority ventures like the ICT Ministry's "Schools of Future," in elevating criteria. These undertakings not only hone primary capabilities but also propel SDG 4 by promoting inclusive, excellent education empowering varied communities. To wholly actualize these profits, unified backing from administration, charities, and worldwide supporters is critical, delivering persistent communal and fiscal gains via a proficient workforce and reduced withdrawals. Ultimately, a deliberate Kumon incorporation could redefine Bangladesh's scholastic setting, transforming hurdles into routes for lasting evolution.

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