

NeuroArts Blueprint

Human Capital and the Arts at the World Bank Group (WBG)

A look at how arts-informed economic interventions can be leveraged to improve health, well-being and economic growth

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Zanaki Primary School is a public primary school in Dar es Salaam, Tanzania, started in 1957. It has a total of 1167 students today, of which 54% are girls. It received a School Improvement Grant in 2016 financed by the World Bank for its substantially improved student performance on the national Primary School Leaving Examination. Photo: Sarah Farhat / World Bank



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Human Capital: Health, Well-Being, and Economic Growth



Sogman primary school is the second biggest school in the district of Sejnane and counts 263 pupils, 3 levels and 11 teachers. Pupils in the French class are between 9 and 10 years old Photo: Arne Hoel / World Bank

The World Bank Group (WBG) believes that by improving skills, health, knowledge, and resilience—human capital—people can be more productive, flexible, and innovative. As highlighted in the 2019 *World Development Report (WDR): The Changing Nature of Work*, markets are increasingly demanding workers with higher levels of human capital, especially advanced cognitive and sociobehavioral skills (World Bank 2018a).

Yet previous reports, including *WDR 2018: Learning to Realize Education's Promise*, make it clear that children in many countries are struggling to learn in school. Nearly a quarter of children worldwide are stunted, leaving them vulnerable to poor cognitive development and hampering their ability to learn. Meanwhile, half the world's population is not covered by essential health services, and 80 percent of poor people in low-income

countries lack a social safety net.

To fully understand the nature of the problem, the World Bank Group launched the first version of the Human Capital Index (HCI) in October 2018. The HCI is a cross-country metric developed in part from the recognition that creating transparent, easily understood metrics has historically helped to build consensus around complex issues. The HCI measures the amount of human capital that children born today can expect to achieve in the country in which they live. Human capital is defined according to three components: survival (measured using the under-5 mortality rate), expected years of learning-adjusted school (a measure of the quantity of education a child can expect to obtain by age 18 combined with a measure of quality), and health (the rate of stunting of children under age 5 and the adult



Preventing a child from fulfilling his or her potential is not only fundamentally unjust, but it also limits the growth potential of economies whose future workers are held back. GDP per worker in Sub-Saharan Africa could be 2.5 times higher if everyone were healthy and enjoyed a good education from pre-school to secondary school.

—Hafez Ghanem, World Bank President for Africa, in World Bank (2019)

survival rate, defined as the proportion of 15-year-olds who will survive until age 60).

The health and education components of the index are combined to reflect their contribution to worker productivity, based on evidence from microeconomic empirical studies. The resulting index ranges between 0 and 1. A country in which a child born today can expect to achieve both full health (no stunting and 100 percent adult survival) and full education potential (14 years of high-quality school by age 18) will score a value of 1 on the index. A score of 0.70 thus signals that the productivity as a future worker for a child born today is 30 percent below what could have been achieved with full health and complete education. The HCI is linked to real differences in how much income a country can generate in the long run. If a country has a score

of 0.50, then the gross domestic product (GDP) per worker could be twice as high if the country reached the benchmark of 1.

The HCI provides a bird's-eye view of each country's level of human capital. The larger Human Capital Project has also launched a program of data and analytical work to improve the measurement of a wide range of human capital outcomes, better understand how human capital is accumulated, and identify the country policies that can promote it. It is within this larger program, designed to enhance understanding of how human capital is accumulated, that arts-informed economic interventions can be leveraged.

Arts-Informed Economic Interventions for Human Capital

Arts-informed economic interventions help to grow human capital. As is evident in the projects explored in this paper, arts-informed interventions have been associated with higher rates of female employment, increased social cohesion within communities that have substantial ethnic minority populations, decreases in violent behavior, and better mental health, all of which can generate measurable improvements in a country's economic performance.

Engaging with creative and artistic activities has a proven track record of improving individual and population health—from increased emotional regulation and social connections, and improvements in cognitive capabilities and meaning-making to alleviating pain, reducing anxiety, and facilitating healing processes (Stuckey & Nobel 2020). Those health benefits, in turn, are deeply linked to economic performance, in part because people are more productive when they are healthier.

In Nigeria, for example, a program providing malaria testing and treatment increased workers' earnings by 10 percent in just a few weeks (Montenegro & Patrinos 2014). A study in Kenya showed that deworming in childhood reduced school absences while raising wages in adulthood by as much as 20 percent (Horton & Steckel 2011). Evidence from the United Kingdom revealed that schoolchildren who had healthier diets significantly increased their achievements in English



A woman embroiders the belt to hold the traditional jambia (dagger) at the National Women's Handicraft Center for Development of Handicrafts in Souq Almelh, in the Old City. The Social Fund for Development supports the center that provides vocational training for women and markets the handicrafts they produce. Republic of Yemen. Photo: Dana Smillie / World Bank

and science (Kraay 2018; Weil 2007). Meanwhile, a multicountry study in Southeast Asia found that both underweight and obese children had lower IQ scores than healthy-weight children (Kraay 2018). In India, giving preschoolers mathematics-based games generated enduring improvements in their intuitive abilities (IHME, n.d.). Other research shows that proper nutrition in utero and in early childhood improves children's physical and mental well-being and that better prenatal care improves infant health.

These individual returns on health add to human capital, which then accumulates and generates large benefits for economies—to put it simply, countries become richer as more human capital accumulates. Human capital complements physical capital in the production process and is an important input to technological innovation and long-run growth. As a result, between 10 and 30 percent of the difference in



Helina, (center), 25, works for a real estate construction firm in Addis Ababa, the capital of Ethiopia. She is overseeing the construction of three apartment buildings. Women working in construction used to be a rare sight in Addis but because of a construction boom, more women are wearing hard hats. World Bank research shows that sectors that are traditionally male-dominated provide an opportunity for women to earn higher returns. Photo: © Stephan Gladieu / World Bank

per capita gross domestic product (GDP) differences is attributable to cross-country differences in human capital (Kraay 2018). That percentage could be even higher when the quality of education and the interactions between workers with different skills are factored in. By generating higher incomes, human capital accelerates the demographic transition and reduces poverty.

Over the longer term, human capital matters for societies. In the mid-1970s, Nigeria introduced universal primary education, sending a large cohort of children through primary school who otherwise would not have gone. Years later, the members of that cohort were found to be more engaged in political life. They paid closer attention to the news, spoke to their peers about politics, attended community meetings, and voted more often than those who did not go to primary school. Similarly, young participants in the National Volunteer Service Program in Lebanon, an intercommunity soft-skills training program, display higher levels of overall tolerance (World Bank 2018a). As the scientist Marie Curie once said, “You cannot hope to build a better world without improving the individuals”

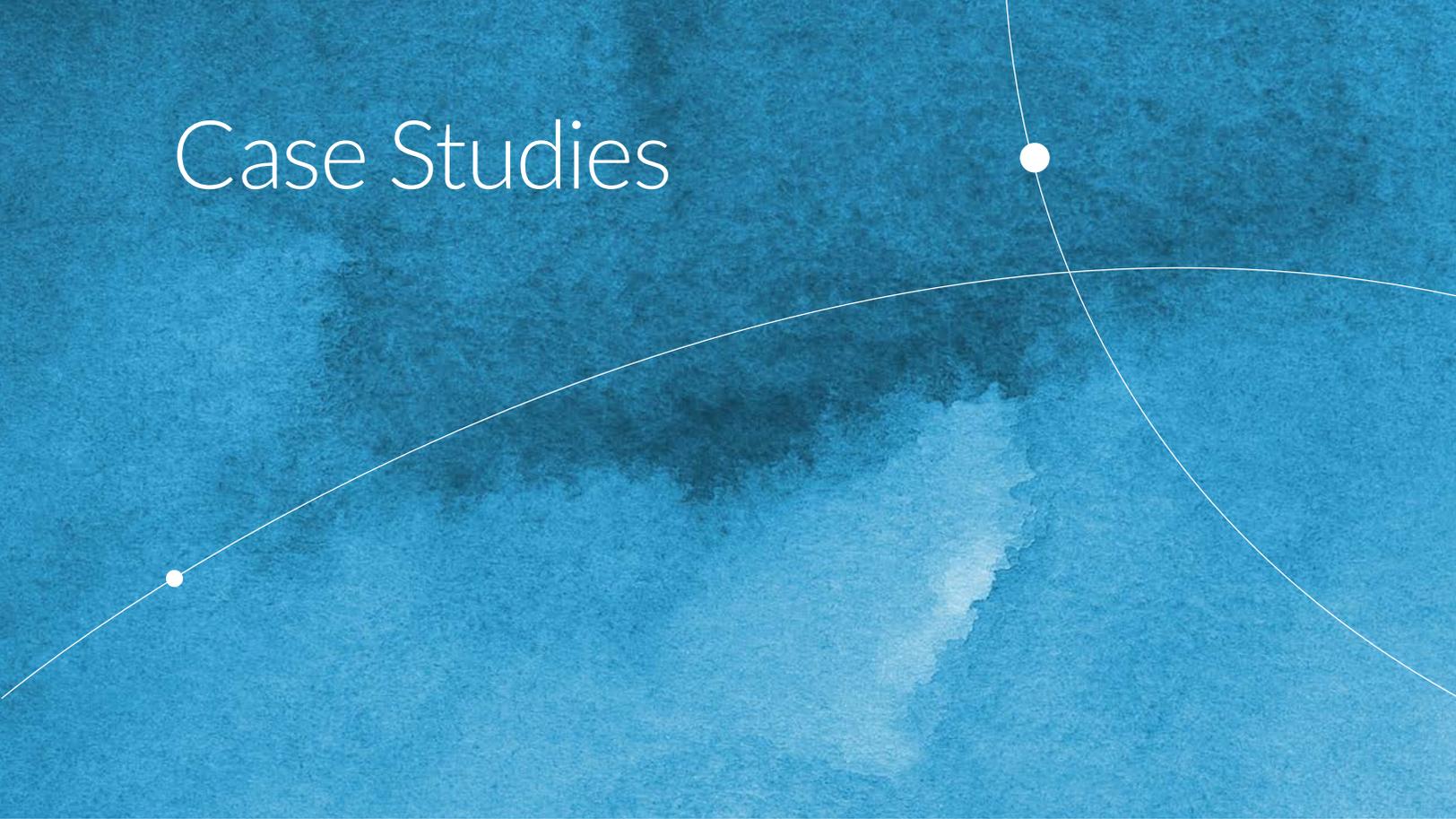
Despite the documented promise of arts-informed interventions to improve health and build human capital, the generally low number of such WBG projects suggest that there are barriers to pick up that must be addressed. The most often cited challenge is that arts

are perceived as “cute,” a soft activity that cannot be measured and has no direct impact. Art in that framing is viewed as an object for museums or performance spaces, useful only to those who “get it,” not as a process for community engagement or individual capacity-building. Additionally, and especially in international development settings, many feel that art and culture pose far too large a political risk to be used in lending projects where the client is a government.

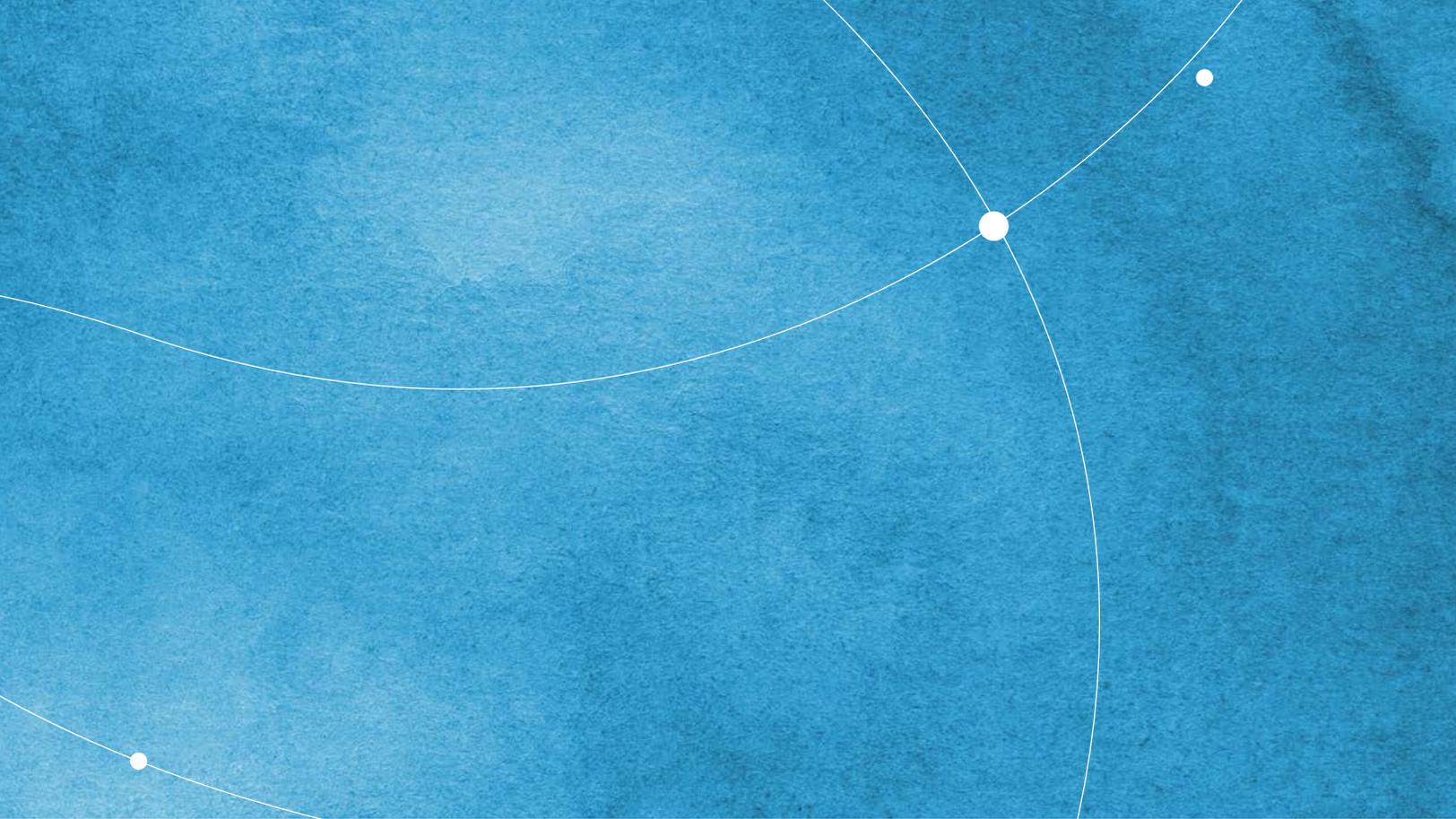
The projects described in this paper reveal these perceptions to be false and mitigable. But dispelling widely held beliefs requires continual evidence that the development-positive spinoff effects of art can be measured and linked to frameworks that are already in place for international development projects. It requires, too, the ability to show that making and beholding art is not a static process but rather one that can yield significantly more robust human capital.

Certain motivating factors both at the project and institutional levels set the stage for the successful pickup and use of arts-informed interventions. This paper showcases a variety of WBG projects and research that created the opportunity to use arts-informed interventions to build human capital by drawing on precedent, institutional value-add, alignment, a need for out-of-the-box thinking, measurability, partnerships, innovation, and economic and policy implications.

Case Studies



In the examples that follow, arts-informed interventions have been used to increase employment in Afghanistan; social cohesion among local and refugee populations in Lebanon; educational attainment by youth in North Macedonia; psychosocial skills among refugees in Bangladesh; mental health, prosocial behavior, and educational outcomes in Colombia; and cognitive power



in youth exposed to high levels of violence in El Salvador; and to foster innovative communication methods for climate change around the globe. Each one of these development outcomes has a direct impact on individual health and well-being, linking it to the attainment of larger human capital growth.

The Afghanistan Skills Development Project

Increasing Employability in Afghanistan

In 2002, Afghanistan began a process of reconstruction and recovery following the overthrow of the Taliban. Despite making remarkable progress in the five years that followed, by 2007 Afghanistan still had concerns over security, rule of law, persistent poverty, and weak institutional capacity. The country's labor force lacked the requisite skills to sustain the recovery, a skills shortage that spanned all sectors. More than 80 percent of Afghan workers were employed in the informal economy, and the vast majority lacked the basic technical competencies and literacy to take advantage of opportunities through more formalized self-employment or small enterprise development. To address the job-specific skills shortage, the government of Afghanistan began to rebuild the country's Technical and Vocational Education and Training (TVET) system. The Afghanistan government requested World Bank technical and financial assistance to ensure that the TVET system would be of high quality and impactful. Building the TVET consisted of selecting, financing, and developing a portfolio of organizations that provided skill-building opportunities for Afghans.

This skills development project is organized according to four goals. Two of these goals focus on increasing the total number of employed and employable TVET graduates, while the other two goals focus on building the capacity of TVET managers to successfully regulate and grow the TVET system in perpetuity.

Arts-Informed Economic Intervention

The arts-informed economic intervention for this project is an investment in the Afghanistan National Institute of Music (ANIM) as one of the organizations to make up the TVET system. The ANIM was identified as a tool to achieve the first set of project goals: to increase the employment of graduates of the TVET system.

Motivating factors for the use of an arts-informed intervention

Alignment

ANIM directly addressed equity, an important crosscutting theme embedded within the strategy for the project, focusing intentionally on populations, such as women, with historically less access to opportunities.

Measurability

ANIM could consistently prove—qualitatively through employer surveys and quantitatively through total number of employed graduates—that their program increased not only the total number of employable individuals in Afghanistan but also the number of employed individuals.

When identifying appropriate organizations to select for the TVET portfolio, the World Bank Group mandated that crosscutting development factors be considered. In addition to providing quality skill-building opportunities, the organizations needed to consider how they were providing those opportunities, and to whom. In particular, the WBG looked at how each organization reached lesser-served Afghanistan populations, such as women and disadvantaged youth (World Bank 2016b; 2015b). Through this lens, the WBG identified ANIM's approach as particularly equitable in its service delivery, making it a desired investment.

Additionally, the ANIM had a proven history of sound management planning, strong leadership, and clear recordkeeping to track their graduates' employment success. These factors allowed the WBG to confidently translate the arts-based work of ANIM into a clear development measurement framework. The WBG was able to track the total number of graduates and the demographics they represented to prove how ANIM was growing Afghanistan's workforce. The WBG was also able to design surveys to capture why employers ultimately hired TVET graduates and how those reasons matched the characteristics ANIM developed in its graduates. ANIM's mission, approach, and leadership aligned with the development framework already in use by the WBG for other lending projects (World Bank 2015a).



Small but steady steps to empower women in Afghanistan. Source: Kerali 2020

Lebanon Municipal Services Emergency Project

Building Social Cohesion

In June 2014, Lebanon saw an unprecedented influx of refugees fleeing violent conflict in Syria. Some 1.5 million Syrian refugees entered Lebanon at the onset of the crisis, swelling the country's population by nearly 25%. Lebanon chose not to establish refugee camps, so the majority of incoming Syrian refugees settled in urban and rural Lebanese communities, many of them already poor and underserved. The sudden increase in demand for services at the local level, where Lebanese and Syrians were interacting, sharing living space, and competing for jobs and access to services, placed mayors and municipal councils under mounting pressure. Local authorities became the principal actors responsible for managing rising social tensions and were often unable to service the growing needs.

This project was organized according to three goals:

- To alleviate the most immediate stresses on crucial municipal services, including water supply and wastewater, solid waste management, roads, recreational facilities, and community centers.
- To prepare for municipal needs that would become apparent in the longer term by proactively investing in high-priority, mid-size infrastructures.
- To support communal initiatives that promoted interaction and collaboration between the refugee and local population to facilitate social harmony (World Bank 2018c).

At the highest level, this project functioned in the belief that the influx of Syrian refugees in Lebanon was not only a humanitarian challenge for refugees but also a development challenge for host communities, which must create expanded municipal-level systems and services to support an exponentially greater total population.

Arts-Informed Economic Intervention

The arts-informed intervention for this project was the creation of a series of 132 visual arts workshops in 22 Lebanese public schools across the country. These workshops, developed in partnership with the Art Program of the WBG and the United Nations Educational, Scientific and Cultural Organization (UNESCO), were structured so that Lebanese and



Syrian refugees learn to finger paint by their Lebanese teacher, Khadga Eter (center) during class in Zouq Bhanin Village, Lebanon on March 22, 2016. Photo © Dominic Chavez/World Bank

Motivating Factors for Using an Arts-Informed Intervention

<p>Unexpected need for out-of-the-box thinking</p> <p>As this project was implemented, it became evident that social tensions between host and refugee populations were preventing the effective delivery of municipal services. The arts workshops had not been embedded into the original project design but were developed as the need for a creative solution to ease tensions became apparent.</p>	<p>Readily available arts expertise</p> <p>UNESCO was a ready and able partner, bringing niche expertise to the implementation of arts workshops. This allowed the WBG to feel confident in standing by the quality of the arts program that would be associated with its name and reputation (World Bank 2017).</p>	<p>Alignment</p> <p>The workshops were designed to engage women, and both the refugee and host populations. The engagement of these three communities was an express metric that needed to be achieved for the project to be deemed successful.</p>
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displaced Syrian children would work side by side to create paintings, sculptures, poems, and short stories based on their interpretations of the word “home.” In collaboration with teachers and artists, the children produced some 88 sculptures, 22 canvases, and 22 literary works.

This arts-informed intervention was used to achieve the third goal of the project—social cohesion—recognizing that without a harmonized society, the infrastructure designed to serve the newly blended population would not be used. Fear of and disrespect for the “other” was thwarting the uptake of public services and a space for safe and prolonged cultural learning needed to deconstruct this barrier. As the WBG’s Art Program director Marina Galvani said, “To facilitate delivery of urban services needed by the Lebanese host communities and displaced population, the social capital of these diverse groups had to be prioritized. The focus had to shift to the networks of relationships between the people who live and work together, for their communities to function effectively.”

To build these networks of relationships, UNESCO contributed its expertise in artistic program development, co-leading 132 artistic workshops

across 22 Lebanese public schools throughout the country. In many cases, these school-based workshops were the sole setting in which the two populations were in the same space at the same time, providing a unique opportunity for Lebanese and displaced Syrian children and adolescents to work collectively. This act of exploring each other’s culture and heritage in a safe space helped ease tensions across communities (World Bank 2017).

To further leverage these workshops in demonstrating the benefits of peaceful coexistence, two exhibitions of the artworks were hosted by the World Bank Group: one in Washington, DC, and the other in the Beirut Souks in Lebanon, a public outdoor gathering place and shopping area.

These workshops were directly connected to a principal development aim of the project: ensuring engagement with both the host population and refugee community and targeting women. Bringing these populations into the same physical space with a shared goal was a strategy to achieve the development aim of social interaction and engagement on an empathetic and emotional level.

The Children and Youth Development Project in North Macedonia

Youth Development and Enrichment

In the late 1990s, development research showcased wide ethnic differences in North Macedonia, revealing the region's vulnerability to social tensions which could directly thwart sustainable development. The research also indicated that the differences manifested themselves in imbalances of economic and social success across cultural groups, with the youth population most at risk.

In June 2001, the number of children in the region with delinquent behavior was almost double that of five years prior. In that same period, the number of identified substance users increased fourfold and the number of criminal acts by juveniles increased by 50%. Additionally, the percentage of students in school from various ethnic groups did not mirror their percentage in the total population, especially among girls. For example, girls in North Macedonia represented just over half (50.6%) of secondary-school-age children at the time, but only 37.3% of Albanian girls within this age group appeared on the official school registration lists. The corresponding figures for Turk and Roma girls were even lower, at 33.5% and 32.5%, respectively (World Bank, n.d.).

To address this, the North Macedonia Agency of Youth and Sport developed a series of programs housed within their Youth Centers—spaces for after-school enrichment activities—aimed at systematically engaging young people in life education activities. These activities included sports, computer and IT training, English language acquisition, art, music, drama, journalism, and debate techniques. The WBG provided financial support and capacity-building expertise to expand the available services.

The goal was to scale up the innovative programs offered by the Youth Centers for vulnerable youth, make these programs sustainable, involve communities in supporting their resource development, and ensure that the policy surrounding the programs continued to reflect the grassroots needs of the community.

Arts-Informed Economic Intervention

The arts-based intervention for this project was the development of creative activities as part of the Youth Center curriculum.

Motivating Factors for Using an Arts-Informed Intervention

Institutional value-add

The WBG's larger strategic framework for the country included a focus on social protection activities and human capital growth. Engaging youth in enrichment and personal development activities which featured art programming was seen as directly aiding the attainment of positive social outcomes and the ability of the World Bank to deliver on its country-wide strategy (World Bank n.d.).

Precedent

The WBG had previous experience in projects that offered creative enrichment activities through youth centers. Offered over a longer time horizon, these projects demonstrated that ongoing enrichment programs decrease in cost over time. At the same time, their reach expands, spurring an identifiable process of cultural change in perceptions of self, increased feelings of empowerment, less drug abuse, and greater numbers of employable youth across all ethnic groups.

At the time of this project, the Youth Centers were the only available public program addressing life education for youth in North Macedonia. The arts were seen as a crucial part of the centers' larger package of activities designed to promote conflict resolution and lessen multiethnic tensions.

In 2001, each Youth Center cost an average of US\$23,000 per year, with the cost per student for one year of activities at US\$53. Because of WBG's successful experience with similar projects in the region, the cost per beneficiary was reliably expected to decrease to US\$34 by 2005 while the number of beneficiaries was expected to double over the life of the project, reflecting increased outreach, inclusion of rural areas, and greater cost effectiveness. The WBG also used qualitative surveys to measure positive changes in widespread perceptions of minority groups and social cohesion.

Rohingya Refugees in Bangladesh

Improving the Lives of Adolescent Refugees

In August 2017, more than 750,000 Rohingya fled Rakhine State in Myanmar for neighboring Bangladesh to escape a genocidal campaign led by the Myanmar military. Before leaving, many witnessed their homes destroyed, their land burned, and their families murdered. Few were able to bring their belongings with them. Yet countless Rohingya refugees yearn to return, as one young man showcased with his poignant comment about the irreplaceable nature of being home: “Don’t you know what home is? Home is heaven.” But the longing to return home sits alongside the difficult reality that safe repatriation appears unlikely; as such these refugees may spend the near, and potentially far, future within Bangladesh.

Anthropological work makes clear that building a sense of home, whether manifested through security and stability or identity and tradition, plays an enormous role in refugees’ well-being. Yet current economic policymaking around migration, which focuses on the physical, material, and social trade-offs between a migrant’s origin and destination countries, misses the profound psychosocial role of the cultivation of a “home.” The WBG’s ongoing research *A Home away from Home: Improving the Lives of Adolescent Refugees*, by Erin Kelley, Gregory Lane, Reshma Hussam and Fatima Zahra, will speak directly to this gap.

This project will compare the impact of three programs. One is the traditional youth enrichment program offered by Terre des Hommes (TDH), an internationally renowned organization that works exclusively with children facing vulnerable situations. The other two programs combine this preexisting

program with either a photography module designed to help adolescents build a sense of home in their camp or a photography module intended to provide adolescents with marketing skills so that they can offer their photography services to nongovernmental organizations (NGOs) working in the camp.

Surveys will be strategically designed to capture changes in mental health and conducted in multiple rounds to measure the perceptions of home and the host community, feelings of hope, child protection and stability, perceptions of the future, time preferences/ time use, and emotional well-being. The surveys will be implemented with two partners: Innovations for Poverty Action Bangladesh (IPA-B, the largest survey firm operating in the country’s refugee camps) and ICDDR,B (the largest institution in Bangladesh studying issue of mental health across the country). The baseline survey will be collected by Terre des Hommes. The second survey will take place after the first six weeks to measure the short-term effect of the traditional TDH program in isolation. The third survey will take place after the final six weeks of the program in order to estimate the impact of adding a photography module centered around home compared to the module focused more heavily on building human capital (employable skills).

Arts-Informed Intervention

A Home away from Home: Improving the Lives of Adolescent Refugees analyzes the act of learning an artistic skill—photography—to understand the

difference in its psychosocial benefits when it is used to create a sense of “home” in a camp compared to creating economic changes by providing marketable skills to local refugees. In this case, the arts-informed intervention is the use of a creative activity to quantify the cost of psychosocial changes among refugee populations.

Motivating Factors for Using an Arts-Informed Intervention

This research contributes to the World Bank’s goal of promoting better living conditions for refugees, who represent an unprecedented 70 million people in recent years. This work also addresses a significant gap in current economic policymaking around migration, which focuses on the physical, material, and social tradeoffs between a migrant’s origin and destination countries but entirely misses the profound psychosocial role of the cultivation of a “home.”

Photography was selected as the tool for the study because it is both an art form that can yield better emotional awareness and health and a marketable skill that can yield economic benefits. It is uniquely suited

Innovation

This research is intended to help policymakers and governments understand the importance of helping adolescent refugees create a sense of home in the camps, a factor largely ignored in the ongoing initiatives to provide aid to refugees.

Policy implications

This research will show the psychological costs of losing one’s home, capturing how this cost should influence the migration development models that have been developed to date.

to sharpen understandings of how the development of emotional well-being compares to the development of economically marketable skills for a refugee population, and to clarify which one might better serve the needs of displaced people.

**This research is ongoing with an estimated completion in Spring 2021.*



Rohingya women with kids are walking to the camp with relief food. Near Block D5, Kutupalong extension Camp, Cox's Bazar, Bangladesh. 2 July 2018. Photo: Tanvir Murad Topu / World Bank.

Venezuelan Refugees in Colombia

Improving Mental Health and School Integration

The Venezuelan migrant crisis is the third-largest migration flow globally and the worst that Latin America has ever experienced. Over five million Venezuelans—equivalent to 16% of the population—have been displaced from their country by the current economic and political crisis. The largest number of displaced Venezuelans—around 1.6 million, according to official estimates—have settled in neighboring Colombia, which has received more displaced children than any other country in the world. Among the most pressing needs of Venezuelan refugee households upon arrival to Colombia are work permits, schooling for their children, and basic medical care.

Children are among the most vulnerable groups of refugees, and the emotional well-being of Venezuelan refugee children is currently of great concern for the international community and Colombia itself. This makes the country an important setting within which to study the effect of interventions designed to promote the integration and well-being of children, and their capacity to build both cognitive and soft skills.

Bullying, social tension, and discrimination by peers create a disruptive environment at school, threatening the capacity of young people to accumulate human capital, with long-lasting consequences for productivity and well-being. However, the school setting also has the potential to create a sense of normality and stability in the lives of displaced children, especially when accompanied by psychosocial support. Quality education plays an important part in encouraging integration and social inclusion among children.

WBG's research *Mental Health, School Integration, and Refugees in Colombia*, conducted by Lelys Dinarte, Sandra Rozo, and Juan Vargas, will study the effects on Venezuelan refugee children of *Somos una sola escuela*, a program that uses an arts-based curriculum to help children identify and explore their emotional well-being. The program will be implemented within schools hosting much of the refugee population.

This research will compare the mental health, prosocial behavior, school cohesion, and educational outcomes of a control group against three other groups: students who only experienced an art therapy intervention, students who only experienced a social cohesion curriculum, and students who experienced both. For mental health, measures of arousal (as a proxy for stress) and valence (as a proxy for emotional regulation) will be taken using low-cost electroencephalograms. For prosocial behavior, self-reported questionnaires and task-based surveys will be used to measure levels of empathy. Finally, administrative sources will provide measures of educational outcomes, school attendance, standardized test performance, and dropout levels.

Arts-Informed Intervention

In this research the arts-informed intervention is the program *Somos una sola escuela*. This program will feature two key components: an arts therapy-based intervention and a social cohesion-oriented school curriculum. The art therapy component will use artistic

methods to help people explore their emotions, cope with stress, and boost self-esteem and social skills. Researchers will work with art therapists to develop a curriculum that addresses the ability of participants to build a bridge between the past and the future by attaching meaning to experiences, an important facet of social protection. This curriculum will use storytelling and drawing to help children reconcile their two cultural worlds, express feelings of loss, and share coping strategies to create ripple effects of positive social change.

The social cohesion curricula that would be a part of this study will be oriented to promote diversity and challenge prejudices. This curriculum will promote openness to different perspectives and encourage critical thinking through role playing. This part of the program will rely heavily on theater activities that allow children to place themselves into the lives of migrants, fostering a sense of empathy between migrants and Colombian children. The program will be designed for a heterogeneous classroom setting using characters and roles that are particular to the Venezuelan and Colombian contexts.

Motivating Factors for Using an Arts-Informed Intervention

Innovation

This project will greatly contribute to the existing literature on interventions oriented toward improving displaced children's emotional health and well-being.

Policy implications

This project has the potential to change the kind of curriculums mandated for use in schools that house refugee populations.

Developmental research has established that violence negatively impacts educational success, regional stability, and economic growth. Research also points to direct relationship between levels of violence and size of refugee populations. To mitigate these realities, development professionals have focused their interventions upstream: engaging a young population to develop enduring positive social behaviors and emotional control.

This research will fill a gap in existing psychological evidence. While some studies show positive effects of art therapy on outcomes among immigrant children, they are typically based only on small samples or lack a credible control group. This research will overcome those issues by implementing a large-scale program assessed by a randomized control trial. As well, to the best of the researchers' knowledge, there is no evidence of programs that simultaneously focus an intervention on displaced children and the contexts in which they interact. This research thus expands the field by clarifying how the content and location of arts-based curricula impact their success in developing prosocial behaviors. Finally, this research focuses on the impact of arts curricula in developing countries, a departure from research that is generally conducted in developed countries.

The researchers hypothesize that this therapy will primarily help displaced Venezuelan children to cope with their displacement trauma and potentially indirectly improve Colombian children's mental health as well. If confirmed, the intent is to use art therapy and social cohesion curricula more widely in school settings to diminish the harm of social tensions and develop resilient young people better able to develop their full human capital.

** This research is in the proposal phase as of Summer 2020*

Violence Mitigation in El Salvador

Behavioral and Neurophysiological Evidence for Preventing Violence

Violence and crime in the developing world force countries to spend substantial amounts of public and private resources on reducing their adverse effects, causing critical welfare losses. Across all stages of childhood and adolescence, young people in developing countries have particularly high exposure to violence and crime. For example, 43% of all homicides worldwide occur between ages 10 and 29, and nearly all these deaths occur in developing countries (World Health Organization 2016). In addition to direct economic and social costs, evidence shows that this early exposure makes this population more likely to be involved in crimes later in life (Sousa et al. 2011; Damm & Dustmann 2014).

After-school programs have been identified as tools that protect children by preventing victimization and delinquent behavior. When including a special curriculum to foster socioemotional skills, these programs can also be an alternative source of learning and social development.

Arts-Informed Intervention

WBG's research *Preventing Violence in the Most Violent Contexts: Behavioral and Neurophysiological Evidence*, conducted by Lelys Dinarte and Pablo Egana-delSol, provides experimental evidence of the impact of an after-school program on vulnerable public school students in El Salvador. The program combined a

cognitive behavioral therapy intervention with a more traditional after-school program of ludic activities (i.e., social interactions based on games and play, including arts-based activities) for students ages 10 to 16. The authors hypothesized that it would affect violence, misbehavior, and academic outcomes by modulating emotional regulation and automatic reactions to external stimuli. The arts-informed intervention was chosen to study the impact of after-school programs that included creative and artistic activities.

Results

The impact of the after-school program and cognitive behavioral therapy curricula was measured through surveys and portable electroencephalograms. Before the children attended the blended program, self-reported data on personal and family characteristics were collected from the students. Follow-up self-reported data included questions to measure the intervention's impact on attitudes, violence and crime, exposure to risky spaces, and educational or personal expectations. This self-reported information was combined with administrative records on math, reading, and science grades, behavioral reports, and absenteeism data. Schools provided this data before and after the intervention both for students who were enrolled in the program and those who were not. Additionally, neurophysiological evidence was collected

from a random subsample of students who had been enrolled in the program, with emotional regulation and stress proxied directly from their brain activity. Portable electroencephalograms were used to take measurements at a lab-in-the-field setting.

The research found that students assigned to the program had better attitudes toward school and 23 percent less absenteeism. It also showed reduced violence and misbehavior at school, based on reports from students and teachers. In line with evidence that emotional and behavioral skills promote and indirectly influence cognitive development (Cook, Ludwig, & McCrary 2011; Cunha & Heckman 2008), the researchers also found that the cognitive behavioral therapy curriculum blended with the after-school program successfully increased academic achievement, with grades 0.11–0.13 standard deviations higher for treated students after seven months of intervention. The intervention also reduced the probability of having to repeat a course by 2.8 percentage points.

The program also had indirect short-term effects on children who were not enrolled. Exploiting the exogenous percentage of treated students within each classroom, the research found positive spillover effects where nonenrolled students were exposed to a higher proportion of treated classmates in terms of both academic and behavioral indicators. The magnitudes of these effects were 0.08–0.09 standard deviations on academic performance and 0.15 standard deviations on misbehaviors at school.

Motivating Factors for Using an Arts-Informed Intervention

Innovation

This research filled a gap in the literature that examines the impact of after-school programs on youth development in developing countries.

Economic implications

This research develops a clear connection between the emotional well-being of those exposed to violence and their eventual economic earning power.

After-school programs have long been established as tool for social behavioral improvements. However, prior to this study, the literature focused mainly on the effects of the programs in developed countries, primarily the United States, a context that generally has limited applicability for low- and middle-income countries. Here, the research concluded that the blended cognitive behavioral therapy and after-school program was a low-intensity intervention that could be successfully applied in the context

of a developing and highly violent country, with short-term effects similar in magnitudes to those of middle-intensity interventions in the United States (Durlak, Weissberg, & Pachan 2010; Cook, Gottfredson, & Na 2010).

Given that emotions regulate many cognitive and behavioral outcomes, such as attention, memory, and perception (Salzman & Fusi 2010), there is evidence that they may also impact earning power. Individuals exposed to highly risky environments might demonstrate more substantial effects, compared to their less exposed peers in terms of learning and developing cognitive and socioemotional skills. This, in turn, creates or widens a gap in educational or labor market outcomes.

** This research is a Policy Working Paper published in May 2019 as part of the Development Economics, Development Research Group of the World Bank Group (Dinarte-Diaz and Egana-delSol 2019).*

The Art of Resilience

Reshaping Global Climate Change and Risk Communications

The Global Facility for Disaster Risk and Reduction (GFDRR) is a WBG-managed grant-funding mechanism that supports disaster risk management projects worldwide. Working on the ground with more than 400 local, national, regional, and international partners, GFDRR provides knowledge, funding, and technical assistance.

Through its project work, GFDRR identified the need to more effectively communicate the urgency of climate change. The complexity of climate change data, and the information associated with understanding monumental environmental changes, make it difficult to communicate in ways that elicit behavioral change, especially in an era of rampant misinformation and sensationalism. In an innovative approach, GFDRR embarked on a climate risk communication campaign built on an international arts exhibition that featured visual designers and technologists. Alongside the exhibition, GFDRR created a database of publicly accessible artists working on related topics, bringing the importance of creative-sector collaborations to broader audiences.

This campaign aimed to achieve three goals:

- Showcase through practical examples the potential for art to support the aims of disaster risk management and climate change communications.
- Inspire climate change leaders within the World Bank to incorporate art into their projects, especially when they are sharing their findings with professionals who do not work in the development area.

- Contribute to the knowledge and awareness of the wider set of WBG staff working on climate change topics about the linkages across art, design, science, and resilience (Global Facility for Disaster Risk and Reduction and World Bank 2019a).

Much of this project was designed to raise awareness of art's usefulness as a tool to communicate big climate change data. Success was measured by the backing of senior World Bank management staff, by the total number of World Bank staff who attended the educational events associated with the exhibition, and by the indication of future funding for initiatives that included engaging with artists at the nexus of art and climate change.

Arts-Based Intervention

Here, the arts-based intervention was the project itself—an exhibition that brought together international artists working at the intersection of visual art, data, science, and climate change to present new ways of communicating climate data and the urgency of action. The belief was that by collaborating with creative sectors, the data-driven narratives of development professionals could be more deeply felt and understood by a broader audience.



Redefining Life, Pitsho Mafolo, 2019.
Mixed media on paper, 186 x 166cm.
Image courtesy of the artist.

Motivating Factors for Using an Arts-Informed Intervention

Institutional value-add

The upper levels of management within GFDRR recognized the challenge of engaging broad audiences with their research and committed to dedicating time and resources to experimenting with new solutions.

Alignment

GFDRR, the unit within the WBG that took on this project, maintains an Innovation Lab charged with trying new approaches to climate-change-related development challenges.

Readily available arts expertise

Through the institutional partnership with the World Bank Art Program, GFDRR was able to access needed curatorial expertise and artistic program management at no cost.

This project arose in response to GFDRR's recognition that they could be more effective in their communications about climate change data to the general public. To inspire higher levels of engagement with its research findings and improve the impact of its work, GFDRR sought to modify the ways in which it crafted its narratives.

Additionally, this arts-based intervention dovetailed with the structure of GFDRR's Innovation Lab—a unit dedicated specifically to pushing the envelope with development projects that are traditionally seen as too risky or experimental. As a department, GFDRR had the bandwidth to undertake a new approach that could be rigorously tested.

The WBG Art Program was a ready partner, willing to manage all of the technical art aspects of the project at no cost, including curating the works, identifying strong artists, organizing all shipments, confirming legal agreements with the makers, and publishing all exhibition labels and catalogue. Because GFDRR had neither the in-house expertise to manage the artistic side of the project nor the budget to hire a consultant to do so, the partnership with the Art Program's staff was a linchpin in making this arts-informed intervention feasible.

Looking Ahead

Arts-informed economic interventions in WBG project and research work are used for intentional and strategic reasons. Within a project, arts-informed interventions were implemented when key motivating factors were present. For example, it was important to be able to show how the outcomes of the arts intervention allowed the larger project to meet its benchmarks for success in cross-cutting development themes, such as greater engagement with women or increased social opportunities for ethnic minorities. Arts-informed interventions were used when the WBG could identify reliable partners and collaborators with skills and expertise that were beyond WBG's capacity.

Additionally, arts-informed interventions were used when the failure of other methods established an undeniable need to try something different. Such was the case in the Art of Resilience climate change project and the Lebanon Municipal Services Emergency Project, where arts served as an innovation that could break the mold. Finally, the World Bank supported research into arts-informed interventions when the interventions held reasonable promise of revealing new approaches to development challenges, had positive policy implications, or filled a gap in existing literature. Across all projects and research, the arts-informed interventions always showcased links back to building human capital as the gateway to economic growth.

As the Human Capital Project continues, the



Two students in a rural school in Mongolia are making a story book together, based on the stories they read in the classroom library. Dadal County, Mongolia. Photo: Khasar Sandag / World Bank

opportunity to further mainstream arts-informed interventions will depend on the continued development of analytic tools that concretely connect the outcomes of arts-informed interventions to greater individual productivity and resilience. As the case studies demonstrate, the tangible changes that confirm improvements in individual productivity and resilience can take many forms, ranging from increased employment to controlled emotional responses and higher pickup rates of municipal services. It will be the job of development professionals to open their minds to the ability of the arts to foster socioemotional well-being and therefore economic capability, developing metrics that link the results of this process to the growth of human capital.

Motivation for Arts-Informed Intervention

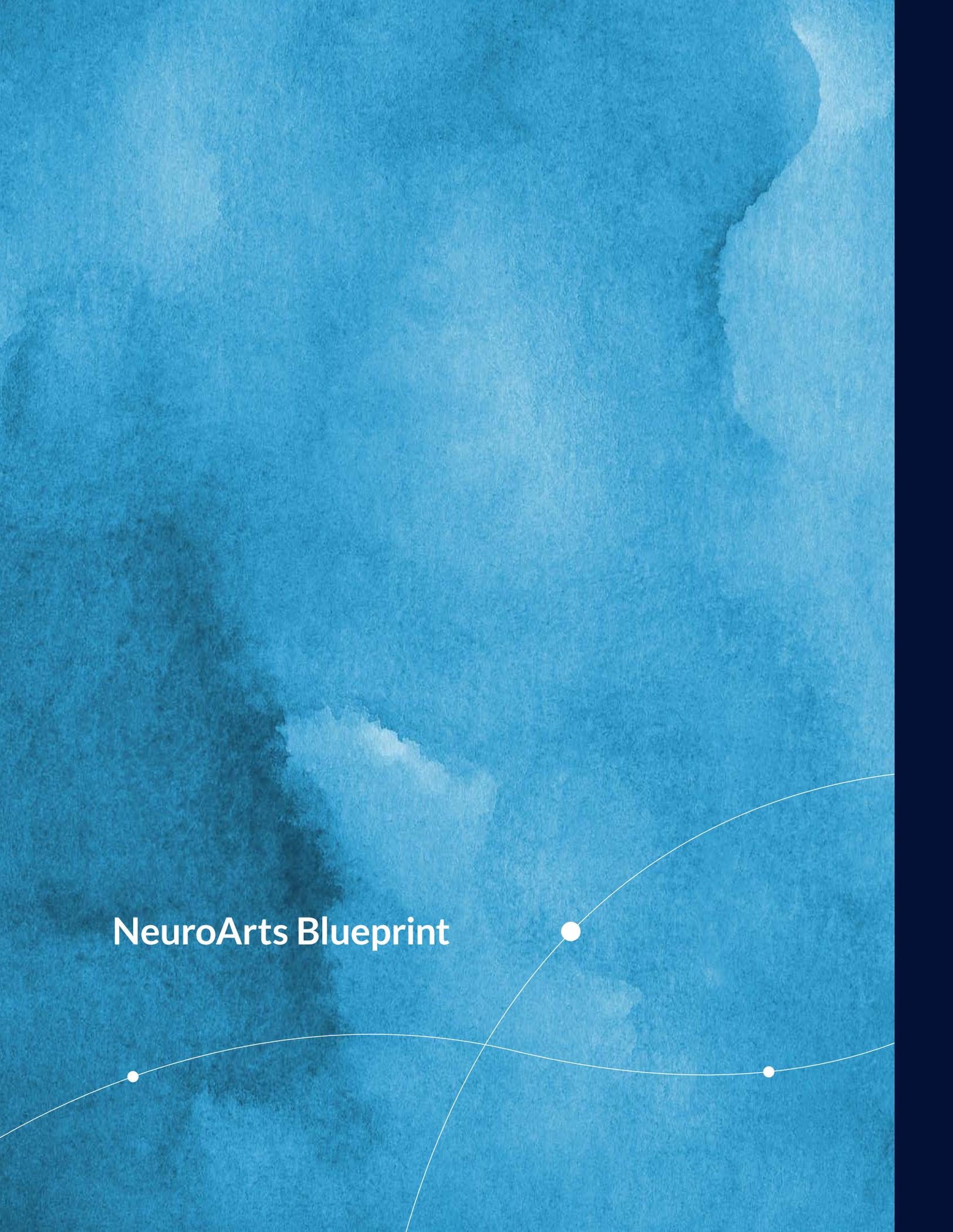
Case Studies

Motivating Factors for the Use of an Arts-Informed Intervention	The Afghanistan Skills Development Project	Lebanon Municipal Services Emergency Project	The Children and Youth Development Project in North Macedonia	Rohingya Refugees in Bangladesh	Venezuelan Refugees in Colombia	Violence Mitigation in El Salvador	The Art of Resilience
Precedent			✓				
Institutional value-add			✓				✓
Alignment	✓	✓					✓
Measurability	✓						
Readily available arts expertise		✓					✓
Unexpected need for out-of-the-box thinking		✓					
Policy implications				✓	✓		
Innovation				✓	✓	✓	
Economic implications						✓	

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The background is a textured watercolor wash in various shades of blue, ranging from light sky blue to deep navy. In the lower half, there are three white dots of varying sizes. Two thin white lines, one straight and one curved, intersect at the largest dot, which is positioned to the right of the text.

NeuroArts Blueprint