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How Different Companies Worldwide are Helping Employee Children's Wellbeing, Companionship, Education, and Growth in Remote Oil Gas Minerals Ores Mining Area by Building Infrastructure and Investment. Companies are Joining Hands to Contribute and Collaborate to Offer Primary, Secondary, and Tertiary Education Within and Near the Worksites. Learn the Methodology to do the Same at Other Sites and Mine Areas. Report Excerpts

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Abstract

Mine sites, particularly those with informal or unregulated operations, often lack higher educational opportunities for employee children, leading to limited prospects. Mine sites, especially in developing countries, may not have adequate schools, libraries, or educational resources, making it difficult for children to access quality education. Even if the employee children manage to complete primary and secondary education, they may lack the resources or opportunities to pursue higher education, perpetuating a cycle of non-retention of local talent. The mining companies should invest in building and maintaining schools in mining communities, providing educational resources, and offering scholarships for higher education. There are very good examples all over the world that can be benchmarked to provide similar experiences for the children of the employees to succeed.



Figure 1. At a Saudi Arabian Expatriate school under Aramco.

The Problem

In the mining areas, there is a palpable tension among the employees and their families about the well-being, companionship, growth, and education of their children. It is quite commonplace to see the parents brood over the lack of proper education facility- comparable to their city cohorts- in the field engineering sites and areas. When there are high-perceived job demands such as workload, repetitive work, and constant engagement of the employees, they are associated with mental distress and exhaustion, sleep problems, and perceived poor physical health status. The added stress and tension of the employees are due to the persistent feeling of guilt that the employed parents cannot provide the right facilities for the growth of their children.

The Strong Case of Children's Education near Parents

When parents can't provide their children with a proper education, they may experience feelings of guilt, inadequacy, and helplessness, potentially leading to stress, anxiety, and even depression due to the weight of societal expectations and their inability to fulfill their parental duties. Here's a more detailed look at the ways parents suffer when they cannot give their children a proper education:

Emotional and Psychological Impact

- **Guilt and Inadequacy**: Parents may feel immense guilt and inadequacy when they can't provide their children with the opportunities they believe they deserve, especially when they see their children's future prospects being limited.
- **Stress and Anxiety**: The inability to provide for their children's education can lead to significant stress and anxiety, as parents worry about their children's future and the potential challenges they may face.
- **Helplessness**: Parents may feel helpless and powerless when they realize they lack the resources or means to ensure their children's educational success.
- **Depression**: In severe cases, the constant worry and stress can lead to depression, as parents struggle to cope with the weight of their situation.
- **Low Self-Esteem:** Parents may develop low self-esteem, as they struggle to meet what they perceive as their children's needs and societal expectations.

Social and Economic Impact

- **Social Stigma:** In some communities, parents may face social stigma or judgment for not being able to provide their children with a good education.
- **Financial Strain:** The cost of education, including tuition fees, books, and other materials, can be a significant financial burden for parents, especially those with limited resources.
- **Limited Opportunities:** Parents may feel their children's future opportunities are limited due to a lack of education, which can lead to feelings of despair and hopelessness.
- **Intergenerational Cycle of Poverty:** When parents are unable to provide their children with a good education, it can perpetuate a cycle of poverty, as children may lack the skills and opportunities to break free from their circumstances.
- **Increased Parental Involvement:** Parents may feel compelled to be more involved in their children's education, potentially leading to increased stress and pressure on both the parents and the children.
- Factors Contributing to this Situation
- **Socioeconomic Factors:** Lack of access to quality education can contribute to parents' inability to provide their children with a proper education.
- **Personal Circumstances**: Parents may face personal challenges, such as remoteness of work, illness, disability, or family problems, that make it difficult for them to focus on their children's education.

The Benefits of Parents Remaining Close to their Children in the Years of Growing Up

Children benefit significantly from pursuing education while remaining close to their families. Parental involvement and a supportive home environment boost academic success, social-emotional development, and overall well-being. Strong family engagement in education, including attending school events, communicating with teachers, and providing a supportive learning

environment at home, correlates with improved academic performance. Parental encouragement and support can foster a child's motivation to learn and set academic goals, leading to greater achievement. Families who are actively involved in their child's education are more likely to ensure regular school attendance, which is crucial for academic progress. When students are supported at home and school, they develop more positive attitudes about school, have more self-confidence, and place a higher priority on academic achievement. Parental involvement helps children develop a sense of self-worth and resilience, enabling them to cope with challenges and setbacks. A supportive family environment fosters social skills, helping children interact positively with peers and others. Children who feel supported and connected to their families are more likely to develop a strong sense of belonging and identity, which is important for their overall well-being. Studies show that parental involvement in education can lead to reduced risk behaviors among children. A positive and supportive family environment can create a sense of security and stability, which is crucial for a child's emotional development. Involvement in a child's education can strengthen family bonds and create a positive environment for learning and growth. A strong foundation in education, coupled with a supportive family environment, can pave the way for future success in higher education and careers. By valuing education and being involved in their child's learning, parents can set a positive precedent for future generations.



Figure 2. Children and young adults get both emotional and motivational support when close to family and vice-versa.

For Young Adults

Young adults studying close to their parents can experience both benefits and drawbacks, including potential for stronger family relationships and increased support, but also a possible delay in achieving independence and navigating adult challenges.

Potential Benefits

- **Stronger Family Relationships:** Living close to parents can foster closer relationships and provide more opportunities for quality time and support.
- **Increased Support**: Parents can offer financial, emotional, and practical support, which can be particularly helpful during the often challenging period of higher education and early adulthood.
- **Reduced Stress and Anxiety:** Having a strong support system can help young adults navigate the stresses of studying and transitioning into adulthood, potentially leading to better mental health outcomes.
- **Access to Resources:** Parents may have access to resources, networks, and opportunities that can benefit their children's education and career paths.
- **Cultural Identity and Family Values:** Living close to home can help young adults maintain connections to their cultural heritage and family values.
- **Improved Health Outcomes:** Studies suggest that strong parent-child relationships can lead to better long-term health outcomes, including reduced risk of substance abuse and improved mental health.
- Potential Drawbacks
- **Delayed Independence:** Relying on parental support for extended periods can delay the development of independence and self-sufficiency.
- **Potential for Conflict:** Living close to parents can sometimes lead to increased conflict due to differing expectations, boundaries, and lifestyles.
- **Strained Relationships:** Over-reliance on parents or unresolved issues can strain the parent-child relationship.
- **Limited Exposure to Diverse Experiences:** Staying close to home may limit exposure to different cultures, perspectives, and experiences that can broaden horizons and foster personal growth.

- **Difficulty Navigating Adult Challenges:** Young adults may struggle to fully develop their independence and navigate the challenges of adulthood if they remain overly reliant on their parents.
- **Economic Dependence:** Continued reliance on parental financial support can create a sense of dependence and hinder the development of financial independence.

The Solutions

The presence of primary, secondary, and tertiary education in the mining areas of oil, gas, minerals, and ores provide esteem, pride for the parents, assuring them that they can provide good education to their children, remaining close to them.

While good examples are rather rare than common, they do exist, and the progressive oil, gas, minerals, and ores mining companies are setting sustainable examples. Here are the few examples.

Examples of Oil & Gas Companies Collaborating to Establish Universities & Colleges

Oil and gas companies worldwide have **jointly established educational institutions** to train employees' children, develop future talent, and create long-term workforce stability. Here are some notable **international examples** that can serve as models for your project:

King Fahd University of Petroleum & Minerals (KFUPM) – Saudi Aramco's Initiative

Saudi Aramco offers a comprehensive education assistance plan for the children of its employees, including access to their high-quality private schools (Saudi Aramco Expatriate Schools or SAES), international schools, and even international boarding schools, with potential travel reimbursements for overseas education. The initiative is a testament that **company-sponsored university** can ensure education continuity & workforce adaptability beyond oil.

Location: Dhahran, Saudi Arabia

King Fahd University of Petroleum & Minerals (KFUPM) was officially established by royal decree on September 23, 1963, initially as the College of Petroleum and Minerals (CPM), aiming to provide higher education and research in petroleum and minerals.

King Fahd University of Petroleum & Minerals (KFUPM) is a public research university located in Dhahran, Saudi Arabia. Established in 1963, the university aims to provide a world-class education in the fields of petroleum engineering, geosciences, and geophysics. In addition to these areas, the university offers degrees in chemical engineering, mechanical engineering, electrical engineering, computer science, business management, and more.

KFUPM is well-known for its commitment to research and innovation. The university operates several research centers and institutes, including the Research Institute, the Center for Research Excellence in Renewable Energy, and the Center for Environment and Water.

As one of the leading universities in the Gulf region, KFUPM attracts students from all over the world. The university offers a diverse and multicultural environment with a range of student services, including health clinics, sports facilities, and on-campus accommodation.

Here are some pointers:

- **Establishment:** KFUPM was founded by a royal decree on September 23, 1963, as the College of Petroleum and Minerals (CPM).
- **Initial Focus:** The institution's primary purpose was to provide higher education and research in the fields of petroleum and minerals.
- **First Students:** The first students were admitted a year later, on September 23, 1964, with 67 young men enrolling.
- **Name Change:** In 1975, the College of Petroleum and Minerals became the University of Petroleum & Minerals.
- **Current Name:** The University was renamed The King Fahd University of Petroleum and Minerals in 1986.
- **Location:** The university is located in Dhahran, Saudi Arabia, near the site of the original discovery of oil in Saudi Arabia.



Figure 3. King Fahd University of Petroleum & Minerals (KFUPM) at worksite

How It Started

- Established in 1963 with support from Saudi Aramco & other petroleum firms.
- Focused on petroleum engineering, renewable energy, and industrial automation.
- Provides scholarships, research funding, and guaranteed job placements for employees' children.

Why It Worked

- Direct industry involvement in curriculum design.
- Strong partnerships with global energy firms for internships & R&D.
- Helped Saudi Aramco transition workforce skills into renewables & AI.

Aramco Schools

Since 1940, Aramco have provided educational services for the dependents of Saudi Aramco employees. Saudi Aramco Expatriate Schools (SAES) provide an English language American curriculum for grades K4-9 for the children of Saudi Aramco expatriate employees. They have generously supported their schools, recognizing that a world-class education is important to the employees and their families. **Today, SAES enjoys an outstanding worldwide reputation for quality educational programs, professional staff, student achievement, supportive parents, excellent facilities, and company support.**

Texas A&M University at Qatar – Oil & Gas Industry Partnership

Location: Doha, Qatar

Texas A&M University at Qatar (TAMUQ) has a strong partnership with the oil and gas industry, particularly focusing on natural gas production and related fields, offering programs and research in areas like petroleum engineering and chemical engineering. Texas A&M at Qatar, a Qatar Foundation partner university, welcomed 162 new students in fall 2023, including 86 Qatari students. That year had the highest enrollment in the university's history.

The total number of students at Texas A&M at Qatar that fall was 844, including students from other Education City partner universities enrolled at Texas A&M at Qatar, as well as the students who are studying abroad from Texas A&M's flagship campus in College Station, Texas (USA). Of the 632 total undergraduate students, 61 percent are Qatari and 48 percent are female students.The university welcomed 12 new master's students in fall 2023. This semester, Texas A&M at Qatar is also hosting 87 Ph.D. students from Texas A&M's College Station campus and 25 Ph.D. Fellows.

The new students aim to become engineers who will contribute to developing innovative and sustainable solutions to critical issues faced by Qatar, the region and the world.The undergraduate students are pursuing bachelor's degrees in chemical engineering, electrical engineering, mechanical engineering or petroleum engineering. Texas A&M at Qatar also offers a Master of Science and Master of Engineering in chemical engineering. In addition to engineering courses, the students will take courses in science, mathematics, liberal arts and the humanities. Texas A&M at Qatar students are also given the opportunity to cross-register for various courses at other Qatar Foundation partner universities within Education City.

The reputation of the university, its world-class facilities, the high caliber of the faculty who are teaching at the university and the impact Texas A&M at Qatar's

graduates are having in the region were some of the key factors that influenced students' decision-making process.

Focus Areas: TAMUQ's partnership with the oil and gas industry centers on natural gas production, upstream and downstream processes, and related technologies.

Research and Development: TAMUQ, through its TEES Gas and Fuels Research Center, engages in research related to natural gas production and monetization.

Educational Programs: TAMUQ offers undergraduate and graduate programs in petroleum engineering, chemical engineering, and other related fields, preparing students for careers in the oil and gas industry.

Industry Collaboration: The university actively collaborates with industry through workshops, events, and partnerships to enhance knowledge and skills in the oil and gas sector.

Accreditation: TAMUQ's engineering programs, including petroleum engineering and chemical engineering, are accredited by the Engineering Accreditation Commission (EAC) of ABET.

Sustainability: TAMUQ also hosts events and showcases related to sustainability in the oil and gas industry, highlighting the importance of environmentally responsible practices.

Qatar Foundation Partner: TAMUQ is a partner university within Qatar Foundation's Education City, which hosts other international universities and research institutions.

How it Started

- ExxonMobil, Shell, and Qatar Petroleum co-funded an engineering-focused university.
- It offers petroleum, chemical, and mechanical engineering degrees.
- Provides education subsidies for employees' children and local students.

Why it Worked

- Strengthened local workforce skill development.
- Helped companies meet nationalization policies (Qatarization).
- Created R&D partnerships for energy transition and sustainability.

Takeaway

Oil firms can **co-fund a local technical university** to sustain workforce talent beyond the field's lifespan in addition to help the employees' children.



Figure 4. Texas A&M University at Qatar (TAMUQ).

The Petroleum Institute (PI) – UAE's ADNOC and Industry Collaboration

Location: Abu Dhabi, UAE

The Petroleum Institute (PI) – UAE's ADNOC and Industry Collaboration

The Petroleum Institute (PI) (formerly The Petroleum Institute University and Research Center) is a multidisciplinary research center of Khalifa University which focuses on oil, gas and broader energy industries[1]. The Institute previously operated as an independent entity, funded by a consortium of national and international oil companies. The center is currently part of Khalifa University's Sas Al Nakhl Campus.

PI was established in 2001 by an Emiri decree under the direction of His Highness Sheikh Khalifa bin Zayed Al Nahyan, ruler of Abu Dhabi. It was initially financed and governed by a consortium of five major oil companies: ADNOC, Royal Dutch Shell, BP, Total S.A., and Japan Oil Development Company, a wholly owned subsidiary of INPEX. The partnered with the following universities: Colorado School of Mines, Johannes Kepler Universitat Linz, University of Maryland, University of Minnesota, The University of Texas at Austin, Rice University and China University of Petroleum[2,3].

In 2017, The Petroleum Institute and The Masdar Institute of Science and Technology became parts of Khalifa University.

The PI admitted its first students in the Fall of 2001. At present, over 800 undergraduate male students and 100 female students are studying in one of the following five engineering disciplines: Mechanical Engineering, Petroleum Engineering, Electrical Engineering, Chemical Engineering, Petroleum Geosciences, Polymer science and material science.

The Petroleum Institute (PI) in Abu Dhabi, while primarily focused on engineering education and research in the oil and gas industry, does not appear to have specific programs or policies directly focused on supporting the education or well-being of employee children. They have a strict admission policy based on merit. Once admitted, an employee child gets various benefits.

Here's a more detailed breakdown:

- **Focus on Education and Research:** The PI's core mission is to be a world-class institution for engineering education and research in the oil and gas sector.
- **No Mention of Employee Child Support:** While the PI offers various programs for students and faculty, there's no mention of specific initiatives or policies designed to support the education or well-being of employee children in the available information. The admission is competitive but being close to the site helps in reducing displacements of the employee benefit which is an advantage.
- **Focus on Professional Development:** The PI emphasizes the development of teamwork skills and Emirati values, focusing on the professional development of its employees.
- **Sponsors and Affiliates:** The PI's sponsors and affiliates include Abu Dhabi National Oil Company (ADNOC) and major international oil companies.
- **Women in Science and Engineering Program (WiSE):** The PI has a unique program called WiSE that supports female undergraduate students pursuing studies at the institution.
- **Graduate School**: The PI offers fellowships and assistantships for highly qualified graduate students.

How it Started

- **ADNOC, BP, Shell, Total, and JODCO** jointly established PI in 2001.
- Offers degrees in **petroleum engineering, geosciences, and energy transition**.
- Provides **full scholarships to employees' children**.

Why it Worked

- Ensured **long-term workforce stability despite oil price volatility**.
- Created a **pipeline of skilled engineers & technicians**.
- Strengthened UAE's transition toward **renewables & sustainable energy**.

Takeaway

☞ **Multi-company investment** in a specialized institute can sustain workforce education **beyond a 10-year project life**.

University of Alberta Oil Sands Engineering Program – Canada's Oil Majors' Initiative

Location: Alberta, Canada

NSERC Industrial Research Chair in Control of Oil Sands Processes is a major strategic initiative taken by the University of Alberta. The program is a partnership between Natural Sciences and Engineering Research Council of Canada (NSERC), Cenovus FCCL Ltd., Emerson Process Management, Spartan Controls Ltd, Suncor Energy Inc., Syncrude Canada Ltd. and the University of Alberta. NSERC Alliance Program in Smart Automation is a major research program after the IRC program. It is in a partnership with Natural Sciences and Engineering Research Council of Canada (NSERC), Imperial Oil, Shell Canada, Suncor Energy Inc., Syncrude Canada Ltd. and the University of Alberta. The objective of the Chair is to establish one of the best process control research and education programs in Canada and to build a world-class process control research center at the University of Alberta. Through the IRC program, the breadth and depth of Canada's oil sands expertise is extended by creating a pool of highly trained engineers in process systems engineering. Our integrated program will enable collaboration with industry to convert research outcomes into implemented solutions and train highly qualified personnel with excellent job prospects. As a result, Canada will be well-positioned to meet its future energy needs.

How it Started

- Co-funded by **Suncor, Syncrude, and Canadian Natural Resources Limited (CNRL)**.
- It offers **oil sands engineering, AI-driven energy, and ESG courses**.
- Provides **employee scholarships, research grants, and internships**.

Why it Worked

- Helped transition Canada's workforce **from oil to sustainable energy**.
- Improved **corporate social responsibility (CSR) compliance**.
- Strengthened **industry-academic R&D collaborations**.

Takeaway

A **technical university partnership** ensures continuous education funding & job security for employees' families.

Kazakhstan-British Technical University (KBTU) – Oil & Gas Industry Support

Kazakh-British Technical University (KBTU) is a public university located in Almaty, Kazakhstan. It was founded in 2001. KBTU's research is focused in the main sectors of the Kazakhstani economy – oil and gas, information technologies, banking and finance, management and telecommunications.The Kazakh-British Technical University JSC was established by the Government of the Republic of Kazakhstan on August 3, 2001 under Decree No. 1027.

Since 2003, NC KazMunay Gas JSC has been the sole shareholder of KBTU JSC (Resolution of the Government of the Republic of Kazakhstan No. 987 dated September 26, 2003). However, in 2018, a Public Foundation "Education Fund of Nursultan Nazarbayev" purchased shares of the Kazakh-British Technical University. The privatization took place following the Government of Kazakhstan's Privatization Program that was approved by a Government's order No. 1141 on December 30, 2015.

Location: Almaty, Kazakhstan

How it Started

- Chevron, Shell, and KazMunayGas partnered to create a university focused on oil & gas.
- Offers petroleum engineering, data analytics, and automation courses.
- Provides industry-backed scholarships & international exchange programs.

Why It Worked

- Created a highly skilled local workforce for Kazakhstan's oil sector.
- Helped companies reduce expat labor dependence
- Ensured employees' children had career pathways beyond oil.

Takeaway

Jointly funded education hubs can help companies **transition communities beyond oil dependency**.

Reliance Jamnagar Township and KD Ambani Reliance Foundation School (KDARFS)

Reliance Jamnagar Township offers facilities for employees and their families, including a CBSE school, amenities like civic centers with recreational areas, and sports facilities, as well as a child development center with creche facilities.

Here's a more detailed breakdown:

- **School: KD Ambani Reliance Foundation School (KDARFS):** Established in 1997 to provide schooling for Reliance employees' wards, it now has around 3000 students and 185 staff members. The school operates from Monday to Saturday, 7:45 a.m. to 2:30 p.m.

Amenities

- **Civic Centers:** Each civic center has recreational and cultural arenas and Olympic-sized swimming pools.
- **Sports Facilities:** Cricket and football grounds, courts for tennis, basketball, and volleyball are available.

Childcare

- **Child Development Centre with Crèche Facility:** This facility supports employees with childcare needs.

Other Employee Benefits

- **Medical Cover:** Comprehensive health and insurance policies, including group personal accident insurance, group term life insurance, and annual health checkups.
- **Parental Support:** Generous parental leave policies, flexible working arrangements, and support for childcare.
- **Lifestyle Benefits:** Well-equipped gyms, fitness and relaxation classes, sports and social clubs, flexible working hours, and marriage assistance.
- **Financial Benefits:** Relocation allowance, handset reimbursement, and company-leased vehicles.
- **Emergency Response Services:** Reliance Employee and Family Emergency Response Services.

Minerals and Ores Mining Company Initiatives

RioTinto

Rio Tinto supports various learning centers and initiatives in Australia, including funding for school-based programs, vocational education and training (VET) qualifications in automation, and initiatives focused on Indigenous culture and language preservation. The Pilbara's newest purpose-built early learning centre opened in Tom Price and now has over 250 children enrolled. Built in partnership with the Shire of Ashburton, the new centre provides children with high quality facilities including nature play areas, water play, outdoor spaces and much more. Through a partnership with Rio Tinto the centre is operated by community organisation Nintirri. Nintirri Early Learning Centre Manager, Tina says the decade-long partnership with Rio Tinto shows the company's commitment to the town of Tom Price and highlights the importance of early childhood educators and their significance in providing quality education for the employee and local children.

Here's a more detailed breakdown of Rio Tinto's learning initiatives in Australia:

- **Resource Industry Collaboration:** Rio Tinto has partnered with South Metropolitan TAFE, the WA Government, and other industry partners to develop nationally recognized VET qualifications in automation.
- **Automation Qualifications:** These new certificate and micro-credential courses equip current and future workforces with STEM skills needed for automation and technology in the resources sector.
- **Pilbara Region:** Rio Tinto is a driving force in Western Australia's skill development landscape, with a focus on building, attracting, and retaining a highly skilled workforce.
- **Future Skills:** Rio Tinto's "Future Skills" initiative provides insights into early career pathways, including traineeships, apprenticeships, and graduate programs.



Figure 5. Reliance Jamnagar Township and KD Ambani Reliance Foundation School (KDARFS).



Figure 6. Rio Tinto School at Pilbara.

- **School-based Programs:** Rio Tinto offers school-based apprenticeships and traineeships (SBATs) that allow students to work and train on the job while still at school.

Rio Tinto's Future Minds

Rio Tinto's Future Minds Accelerator program has provided future skills courses to kindergarten to year 12 students and educators in Western Australia.

The Future Minds program provides free remote classes at Parburdoo, Dampier and Baynton West Primary Schools in the Pilbara, along with seven schools in the Western Cape and Northern Peninsula regions.Rio Tinto has provided $10 million to fund the four-year program, with the aim of teaching young Australians the skills they will need for future jobs.Each startup was given a $50,000 grant from the mining giant, plus training and mentoring from BlueChilli startup accelerator, and up to $100,000 in Amazon Web Services' (AWS) credits for startups."Our world is ever-changing and it is important, now more than ever, to equip children with the skills they will need for a digital future," Rio Tinto Weipa acting general manager of operations Dan Kelleher said."We are helping to prepare young people by providing regional communities in the Western Cape access to programs like the Future Minds Accelerator that focus on critical thinking, problem solving, systems design and data analytics – all skills required to thrive in the careers of tomorrow."

Skills in artificial intelligence and robotics, smart cities, sustainability, online game development, virtual reality, career readiness, entrepreneurship, teamwork, imagination, physical health and mental health were some of the areas focussed on with the Future Minds program. The Future Minds Advisory Council of Australian education, innovation and business leaders is led by David Gonski, who welcomed the initiative."Now more than ever equal access to education is important for regional and remote areas of Australia," he said."I am delighted that the startups from the Future Minds Accelerator are helping bridge that gap and building these future skills in our young Australians."

BHP

BHP donated $CAD200,000 to the Ronald McDonald House Charities Saskatchewan Miles to Go campaign in Canada, aimed at supporting paediatric patients and their families. The donation will aid in the construction of Ronald McDonald Houses in Regina and Prince Albert, Saskatchewan, allowing families to stay close together while their children receive medical care.

BHP's donation will also sponsor a family guest room at the new Ronald McDonald House location in Regina, where expanded paediatric services at the Regina General Hospital are expected to increase the demand for overnight stays by young patients.The guest room will offer families a home-like environment, helping them focus on their children's well-being during challenging times.

"We are proud to be able to support a guest room at the new location that will serve as a home away from home for families, allowing them to focus on what matters most – the health and well-being of their children."

Currently, the only Ronald McDonald House in Saskatchewan is located in Saskatoon and serves only 20–30 per cent of paediatric families who need support. The new Regina location, with 20 rooms, will help over 820 families per year and provide essential facilities such as cooking, dining, play areas, and spaces for relaxation and community connection.

"This gift from BHP to the future RMHC-SK Regina House is a significant contribution enabling family-centred care and support to families that are traveling throughout Southern Saskatchewan for the medical needs of their child or children," Ronald McDonald House Charities Saskatchewan chief executive officer Tammy Forrester said.

"Together we are building a home to keep families close." This campaign highlights the financial challenges families face during a child's illness, with out-of-pocket costs averaging $CAD3600 for a seven-day hospital stay. BHP's support is crucial in easing this burden for many Saskatchewan families.



Figure 7. Rio Tinto School at Pilbara.

Tata Steel

Tata Steel has a long history of enriching the education landscape of Jamshedpur, starting with the establishment of Mrs. Keoke Monroe Perin Memorial School (KMPM) in 1915, and has since expanded to include numerous other schools and initiatives.

Key Points about Tata Steel's Jamshedpur Schools:

- **Early Beginnings:** Tata Steel established its first school, KMPM, in 1915, eight years after the establishment of the Jamshedpur steel plant.
- **Extensive Network:** By the end of the 1930s, Tata Steel had established over 28 schools in Jamshedpur, and today, there are over 350 schools in the city.
- **Focus on Quality Education:** Tata Steel's commitment to education is evident through its various initiatives, including the establishment of schools like KMPM, Jamshedpur Middle School, and Golmuri Night School.
- **Community Involvement:** Tata Steel actively engages with the community through initiatives like the "Thousand Schools Programme" and "Masti Ki Pathshala," which aim to improve access to quality education for all children, including those from disadvantaged backgrounds.
- **Modern Facilities:** Schools like Prem Jyoti Prangan School in Northern Town have been equipped with modern facilities, including smart classrooms, science and computer labs, and libraries.
- **Sustainability Initiatives:** Tata Steel has also launched initiatives like "The Green School" to promote environmental awareness and sustainability in schools.
- **Schools of Excellence:** Tata Steel has introduced a pioneering learning initiative called "Schools of Excellence (SoEs)" to structurally enable the 70:20:10 model of learning, with special emphasis on involving learners actively in the learning process for effective skill development.
- **Masti Ki Pathshala:** This initiative focuses on bridging the gap for children who are out of school, providing them with the necessary skills and knowledge to mainstream them into regular schools.
- **Loyola School:** Loyola School in Kalinganagar is a new venture of the Jesuit Fathers of the Jamshedpur province of the Society of Jesus (Jesuits) and is promoted by Tata Steel.



Figure 8. Tata Steel Green School Project

- **Adarsha Vidyalaya:** Tata Steel has also constructed Adarsha Vidyalaya (Model School) in Jajpur.

Universidade Federal de Ouro Preto (UFOP) – Brazil's Mining Industry Initiative

Location: Brazil's Iron Ore & Gold Mining Region (Minas Gerais)

How it Started

- Established with **support from Vale, Samarco, and other Brazilian mining firms**.
- Designed to **train engineers, geologists, and environmental scientists** for Brazil's mining sector.
- Provides **free/low-cost education to mining employees' families**.

Why it Worked

- Companies contributed funding, faculty, and research partnerships.
- **Graduates absorbed into mining & allied industries** in Brazil.



Figure 9. Universidade Federal de Ouro Preto (UFOP)

- Strengthened ESG compliance and community goodwill.

Takeaway

☞ **Multiple mining companies can fund and govern a technical university**, ensuring employee happiness and continuous talent supply.

WA School of Mines (WASM), Curtin University – Australia's Mining Giants' Initiative

Location Western Australia (WA) – Gold & Iron Ore Mining Hub

How it Started

- **BHP, Rio Tinto, FMG, and Newmont Gold** invested in an industry-focused mining college.
- Offers **engineering, automation, AI, and sustainability courses**.
- Provides **scholarships and job placements for mining employees' children**.

Why it Worked

- Close **integration with industry needs** – courses shaped by mining firms.
- **Company-funded research centers** on sustainable mining & automation.
- Created **a global hub for mining education**, attracting talent worldwide.

Takeaway for Your Project:

☞ **A specialized mining school, co-funded by multiple firms**, can support workforce development & innovation.

University of Johannesburg (UJ) – South African Mining Consortium's Initiative

Location: South Africa's Gold & Platinum Belt

How it Started

- Supported by **Anglo American, Sibanye-Stillwater, and De Beers**.
- Offers **mining engineering, metallurgy, and ESG courses**.
- Provides **free education to employees' children in mining towns**.

Why it Worked

- **Industry-led faculty & training programs** for practical skills.
- Increased **local employment & reduced talent migration**.
- Enhanced **corporate social responsibility (CSR) impact**.

Takeaway

Mining firms **co-investing in a regional university** can improve workforce readiness and community trust

How to Kickstart the Mining Education Proposition?

Here's a **step-by-step roadmap** for the mining companies with this idea:

Step 1: Identify Potential Partners

- **Target** mining companies in **iron ore, chromite, limestone, coal, and oil & gas regions** where workers lack good education facilities.
- **Key Locations**
  - Odisha (Barbil, Joda, Sukinda, Talcher)
  - Karnataka (Bellary, Hospet, Sandur)
  - Chhattisgarh (Bastar, Korba, Raigarh)
  - Jharkhand (West Singhbhum, Dhanbad)
  - Andhra Pradesh (Krishna-Godavari Basin)
  - Assam (Digboi, Duliajan)

What's Missing in Indian Mining & Oil Towns Compared to Global Examples?

- **India lacks full-fledged mining and petroleum universities** in mining belts like Digboi, Barbil, Hospet, and KG Basin.
- **Most company-run schools focus on primary & secondary education**, but **few focus on higher education or research**. **There are no world-class STEM research institutes in major mining areas**, unlike Qatar's Education City or Chile's copper-mining universities.
- **Public-private partnerships for education are limited**—most schools rely on CSR rather than integrated long-term planning.

Impacts on the children

When children move to other cities for education, they face significant changes, including adapting to new schools, cultures, and social environments, which can impact their social-emotional well-being and academic performance.

Here's a more detailed look at the potential impacts:

Challenges

- **Adjustment Issues:** Moving can be stressful, and children may struggle to adjust to a new school, environment, and social circle.
- **Social-Emotional Impact:** Frequent moves can negatively impact social skills and increase the risk of emotional and behavioral problems.
- **Academic Challenges:** Adapting to a new school system, curriculum, and teaching methods can be difficult, potentially affecting academic performance.
- **Loss of Familiarity:** Leaving behind friends, teachers, and familiar surroundings can be emotionally challenging.
- **Increased Risk of Depression:** Studies show that children who move frequently are at a higher risk of depression.
- **Homesickness:** Children may experience homesickness and struggle with the separation from their families and familiar environment.

(**Special Note**: The above is an excerpt of a detailed report. The above examples are borne out of following various methodologies. They include early concept development, getting started and the steps leadership, collaboration, developing trust among the stakeholders, seeking permission and approvals, management of the board and trustees, phasing, budgeting, funding and many other aspects. The detailed report contains all the above aspects. A customized detailed report can be obtained by contacting the author of the report: jayantasim@gmail.com. Terms and conditions apply)