

“Project *Sapana* (Dream)”

Digital education and socioeconomic mobility in rural Nepal: Educational bootcamp for underrepresented school students with apprenticeship-based job market exposure

Himal Raj Pandey '25 | Williams College | Dhading, Nepal | June - August 2022

Background

Marpak, Dhading. 2019. I was back in my village, a day-long walk away from the nearest city, to volunteer at the local Nimarchok Secondary School. This was my first time back since I temporarily moved to Australia for five years. I expected better enrollment and student engagement after the school went through renovations after the 2015 Earthquake due to better technical infrastructure. However, the school principal mentioned that most students dropping out after grade eight was still prevalent.

After talking to many villagers over my four-month stay, I realized that most of the students dropping out were from the marginalized groups in the village. The lack of clarity on the long-term benefits of education discouraged these students from low-income families from continuing schooling. They were suffering from generational poverty where their families had just enough to make ends meet. The families lacked the conviction of continued investment in education, which seemed expensive without immediate returns. After dropping out, the students became farmers, manual laborers, or moved to the city to find minimum-wage work. However, these alternate paths were only short-term solutions to a long-term problem of alleviating their socioeconomic status.

Developing countries like Nepal, despite international support, continue to be plagued by endemic barriers to socioeconomic mobility. We can overcome this with improved access to quality education programs that provide exposure to skilled jobs in urban areas. A recent [paper](#) published by the World Bank analyzed panel data from standardized testing from low and middle-income countries. They presented strong evidence that, by age 22, high scoring children from poorer backgrounds complete the same number of years of schooling as low scoring children from wealthier backgrounds. This figure demonstrates a need for external interventions that actively promote educational opportunities for children in rural communities. As part of “Project *Sapana*,” these interventions would take the form of providing digital literacy to the students and exposing them to the labor market externships for early introduction and motivation for continued study. This will provide the students and their families with a stable income, reduce domestic conflicts arising from poverty, and give clear access to a means of upward socioeconomic mobility. We can move towards a more peaceful society by achieving these three interdependent goals through “Project *Sapana*.”

Mission

The mission of “Project *Sapana*” is to pilot an educational program that equips secondary school students from socioeconomically disadvantaged groups (the Ghale, Tamang, Magar and Chhetri communities) with digital literacy skills where they learn MS Office to basics of computer programming. We will then match up to 15 of them with externship opportunities with leading technology companies and incubators in the capital city (Deerwalk Nepal, Kathmandu Living Labs, National Innovation Center and more). I expect to run this project at Nimarchok Secondary School in rural Dhading. This program will address the pressing issue of access to professional careers for even the brightest students in rural villages in Nepal.

Project Implementation and Timeline

Planning (June 6 - June 15)

- **Curriculum Development:** We will develop the curriculum with guidance from computer science professors at Williams College focusing on K-6 computer science education, young Nepali professionals from Kathmandu University working in the technology and research industry, and our local externship partners.
- **Team Construction:** Throughout late Spring/early Summer, I will collaborate with local community leaders (The School Principal and Village leaders) and various policy analysts (Professors from Kathmandu University and the National Planning Committee team members) to develop a team for Project *Sapana* that will be engaged in operations and planning of each step of the process for students. For the active work at the schools, I will be coordinating a team of high school graduates and bachelor students.
- **Skills Assessment:** We will conduct surveys to assess students' digital skills in Nimarchok Secondary School. This step will ensure that the curriculum targets the principles of "Teaching at the Right Level."

Method of Instruction (June 20 - July 9)

- Students will be divided into groups of five based on their level of digital literacy.
- Students will attend hands-on lab sessions sets where they will be taught the basics of using MS Office Suite and data analysis. They will learn to apply those in the context of a real-life project they will pursue for their final projects.
- Instructors will dedicate time each week to hold specific office hours addressing the most common educational gaps to support the students' projects.
- The primary method of instruction will depend on the severity of COVID cases/onset of different variants. However, the school already has a new computer lab established by donors after the 2015 earthquake. If all things go well, students will learn in person to engage with the instructors.

Short Term Outcome (July 25- August 5)

- The three-week program will culminate in a portfolio of qualitative/quantitative projects where students dive into questions relevant to their community. We will provide a stipend to a group of 15 students. We will then match them with relevant two-week-long externships in the capital city, Kathmandu, that allow them to use the skills they learn during Project *Sapana* in the real world.
- We will also buy a laptop for the school library that the students can borrow after their externships. This will allow them to work from their homes, which will help the students and their families realize the project's outcome more concretely. When the parents can see the work done by their children, it will provide them with an incentive to further invest in their children's education.

Long term Impact/Sustainability

The externships with stipends will allow the students to gain valuable experience to help them find freelance computing jobs on the internet and in nearby cities. This will create a positive feedback loop, allowing their educational pathway to have less resistance. Students who complete the externship program will return to the village and continue taking leadership roles in their school as ambassadors of the program. Their success will motivate future students to continue their educational journeys as well. After a successful pilot, I plan to implement this in multiple villages of Nepal to establish a grassroots-led digital literacy movement that provides direct access to elusive labor market opportunities for the most disadvantaged communities.