

# Youth**Action**Net®

CASE STUDY SERIES

Science League:

INCREASING THE ACCESS AND QUALITY OF EDUCATION IN JORDAN

A partnership between:



GEORGETOWN UNIVERSITY

School of Foreign Service Global Human Development Program international youth foundation

#### Introduction

This is one of a series of case studies produced by students enrolled in the Global Human Development Program at Georgetown University through its partnership with the International Youth Foundation (IYF). Students enrolled in a course exploring the role of social enterprises and social entrepreneurs were paired with young leaders of social ventures identified through the IYF's YouthActionNet® program. The students were given the assignment of analyzing the venture's assets, successful methodologies, and opportunities for investment to increase impact. Through this experiential learning process, the student consultants gained hands-on experience and exposure to the needs of social enterprises. The ventures, too, benefited from student insights into their strengths, areas for growth, and recommendations for enhancing their impact and sustainability. The Georgetown practicum is part of YouthActionNet's larger efforts to partner with institutions of higher learning around the globe to integrate social change into the academic experience and career interests of students.

#### International Youth Foundation

The International Youth Foundation (IYF) invests in the extraordinary potential of young people. Founded in 1990, IYF builds and maintains a worldwide community of businesses, governments, and civil society organizations committed to empowering youth to be healthy, productive, and engaged citizens. IYF programs are catalysts of change that help young people obtain a quality education, gain employability skills, make healthy choices, and improve their communities.

www.iyfnet.org

#### **YouthActionNet®**

Since 2001, YouthActionNet, a program of the International Youth Foundation, has provided founders of social ventures, ages 18 to 29, with the training, networking, coaching, funding, and advocacy opportunities they need to strengthen and scale their impact. These young social entrepreneurs have pioneered innovative solutions to critical local and global challenges, resulting in increased civic engagement, improved health, education reform, economic opportunity, environmental protection, and more inclusive societies. Our work is carried out through a network of 23 national and regional youth leadership institutes that collectively support over 1,350 young social entrepreneurs globally.

www.youthactionnet.org

#### Global Human Development Program at Georgetown University

The Global Human Development Program of Georgetown University is home to one of the world's premier master's degree programs in international development. An innovative, academically rigorous skills-based graduate program, the Master of Global Human Development degree prepares the next generation of development professionals to work with public sector agencies, private businesses, and non-profit organizations that advance development. Through coursework, extracurricular activity, and practical fieldwork experiences, our graduates develop the insights, skills, and experiences necessary to become leaders in development and make a difference in our global community.

https://ghd.georgetown.edu

## **INTRODUCTION**

## Meet Hamza Arsbi, Founder and CEO of Science League

Hamza Arsbi's interest in education began when he spent a year in the United States on an exchange program doing volunteer work and meeting with policymakers. Hamza returned to Jordan and realized he wanted to start a cultural and social movement to shift Jordan on a path towards becoming a knowledge economy through the improvement of the quality of education. Hamza founded Science League in 2012, and hopes to provide a meaningful contribution to education and pedagogy by using technology, expanding the conversation about increasing access to higher quality learning, and ending the rote learning method used in the Jordanian education system. For



his work, Hamza was recognized by the King Abdullah II of Jordan with the Success Story Award. He has also received the AMENDS Fellowship from Stanford University, King Abdullah Award for Youth Innovation and Achievement Award (KAAYIA), BADIR Fellowship, and Laureate Global Fellowship among others. With an undergraduate degree in Psychology, Hamza is currently a Chevening–Saïd Foundation scholar pursuing a graduate degree in International Development at the University of Manchester while simultaneously running Science League.

Science League is increasing access to quality education and providing young students with critical and analytical skills to tackle real-world problems.



## The Problem

According to Hamza, the Jordanian schooling system is largely based on rote learning and memorization, diminishing the use of critical thinking. The education system does not prepare students to be critical thinkers and active citizens, which has led to discouragement and disinterest among young students who are at highly impressionable ages. Data from the Ministry of Education and international organizations shows a significant disparity in the enrollment rates at the primary level and high school. Data from the UNESCO shows that 58 percent of Jordanian youth do not complete secondary education.<sup>1</sup> One of the reasons for the rising student dropout rates is a diminishing interest in school itself. The pedagogical methods adopted in schools fail to provide students with practical, creative, and real-world skills required to succeed in the world of work. This has resulted in many students believing schooling is relevant and applicable only in examinations and tests.

<sup>&</sup>lt;sup>1</sup> http://www.epdc.org/sites/default/files/documents/EPDC%20NEP\_Jordan.pdf

While the education deficiencies are systemic and impact every student, there is also education inaccessibility based on economic status. Underprivileged students who attend public schools have no access to laboratory resources and other experimental hands-on tools relative to students from higher-income families. In general, the present schooling environment has resulted in disinterest in education, especially in the fields of science and research. With rising populations, due to the refugee crisis, it is critical now more than ever to address these gaps in the education system if Jordan strives to become an economy in which the production and use of data informs decision-making, a so-called knowledge economy.

## The Solution

Science League has adopted technology to address the issues of access to education and interest in science. Hamza and his team created an online interactive platform that has a high-quality student curriculum focusing on four main skills designated at the World Economic Forum as 21<sup>st</sup> century skills: critical thinking, leadership, creativity, and communication. On this platform, each student can create a personalized profile and access challenges based on ten themes in the curriculum including art, space, technology, and health. The online platform has gaming elements incorporated into the learning model so students can get through the curriculum as a fun activity, including incentivizing students to read-up on interesting subjects like the solar system, sports, and exercise by earning points for questions they get right on interactive quizzes. Scoring points for each right question rather than losing points in a real exam shifts the incentive towards advance reading and engagement.<sup>2</sup> The online platform also enables students to interact with their peers. The objective of the online platform is to enable students to complete real world missions, while earning virtual skill-points in community, creativity, critical thinking, and collaboration.

Additionally, Science League trains young adults as volunteers to assist with program and workshop implementation. Volunteers receive training in critical skills like communication, team-work, and leadership. At a time when unemployment is on the rise in the Arab world, these trainings uniquely benefit young Jordanians. Moreover, the trainings also help volunteers understand the importance and role of volunteerism in improving the Jordanian society.

## **Operational Model**

Science League was registered in Jordan as a non-profit from 2012-2016 when the organization adopted a for-profit, social enterprise model. Almost ninety percent of the funding comes from grants and contributions, with donors including USAID and UNESCO. The online platform is free for all students. However, if a private school or club uses the platform and charges students for it, Science League receives a portion of the income. Overall, Science League does not have a regular revenue stream and is currently in the process of identifying opportunities to generate stable revenue in the near future.

<sup>&</sup>lt;sup>2</sup> http://www.khaleejtimes.com/news/education/punishment-can-only-be-a-short-term-solution

Science League has three full-time employees: Hamza serves as the CEO, Farah Abu Hamdan as the Student Affairs Officer, and Sarah Alabbasi as the Communications Officer. Science League also has five web developers who designed the online platform and assist with programming. The legal and accounting functions are outsourced to one expert each. With these relatively modest resources, the organization has reached close to 4,000 students (through the online platform and workshops) and trained around 200 volunteers.



## **KEY ASSETS AND SUCCESSFUL METHODOLOGIES**

While there are other organizations around the world and in Jordan working on education, Science League is unique because of the use of technology combined with hands-on learning activities to improve critical thinking, creativity, and collaboration skills among young students. Science League is addressing the skills gap issue through innovations in education. Further, Hamza's low-cost and replicable programs, coupled with a committed team, contribute to Science League's success and set it apart, especially in Jordan.

## Use of Technology

Today, technology has the unique and unparalleled ability to interest students and captivate their attention, making it the perfect vehicle to address key issues of access to and quality of education in Jordan. The online platform has a unique and engaging curriculum coupled with gaming elements that encourage students to learn. More importantly, the online website focusses more on skills

development, rather than information regurgitation, and enables students to complete real world missions with learning objective at the core. Since the platform is designed like a game, students are self-motivated to complete the missions and learn in the bargain.

The use of technology has advantages relative to traditional learning methods. On Science League's online platform,<sup>3</sup> students can create customized accounts, communicate with each other, form groups, receive guidance, and obtain real time data. This enables students to work on critical thinking, leadership, creativity, and communication. Although these skills were listed by the World Economic Forum as necessary for the job market in the 21st century, the education system in Jordan does not focus on them.

The online platform does not have robust monitoring and evaluation methodology, but it does provide real-time general data on which of the ten themes generate the most interest among students and how students perform on each theme. Additionally, each student receives a real-time pie chart illustrating which skills are the most developed (i.e., the strong points of each student). In general, the online platform provides immediate data for general statistics for each student along with aggregated data for analysis.

Additionally, the use of technology serves as an asset because it enables low-cost programming and easy implementation. Additionally, since the curriculum and exercises are online, Science League does not need to hire many employees or volunteers. The full-time Student Affairs Officer leads the training activities for volunteers so they can appropriately interact with students. More importantly, most of the activities of Science League are student-driven.

## Unique Approach to Skills Gap

Science League's overall approach to addressing the skills gap in Jordan is another key asset. Although, the organization is titled Science League, Hamza and his team focus on developing non-cognitive, soft skills that are critical for the work world. More importantly, they use science-related activities as the vehicle to deliver these critical skills largely ignored in the formal education system. In the area of life skills development, there have not been any programs that adopt science to teach students lessons of teamwork, leadership, and



communication. According to Hamza, there is no other organization in the region that uses a system combining online gaming with hands-on learning to teach critical life skills to students. More importantly, there is no organization in the world that teaches these important skills through science in the Arabic language. Hence, the use of science to address the skills gap in Jordan is one of Science League's key assets and unique offerings.

## **Committed Team**

Science League is distinguished by a committed team of talented individuals. Since the organization is still a relatively small with limited funding, the hardworking part-time and full-time employees

<sup>&</sup>lt;sup>3</sup> Currently the online platform is in its pilot testing phase with 50 students.

ensure that the workshops and programs are run effectively and efficiently. All team members are passionate about and interested in education and international development. Since most of the core programming involves interacting with young students, the team members create an enabling, caring, and comfortable environment where students are encouraged to think, question, and express freely. The full-time employees and volunteers bring a combination of important skills including program implementation, teaching and training, communications, and web design, ensuring efficient division of labor.

Science League's talented team also works on building important partnerships and networks with cultural centers and community organizations. Every team member brings a unique network to the table which enables the organization to establish more strategic partnerships and cast a wider net. Owing to Science League's able team, the organization has been able to reach more than 4,000 students, train 200 volunteers, and develop five unique curricula in a short period with limited resources.

## **OPPORTUNITIES FOR INVESTMENT**

Science League is still a young organization and has many exciting opportunities to grow and further impact young students in Jordan. Hamza and his team have dreams of expanding the organization and increasing scalability and reach. To attain these promising goals, Science League needs to add sustainable revenue streams that will decrease reliance on grants. Furthermore, Science League should invest time and effort into improving relationships and building new partnerships with the corporate sector, foundations, schools, and the government.

## Add Sustainable Revenue Stream

Science League is overly dependent on donors with more than ninety percent of funding coming from grants and contributions and should explore sustainable revenue streams to cover costs. The overreliance on grant money is restrictive to growth. The grant applications are often time consuming and compete with planning and implementing programs. Secondly, the current funding model does not



ensure sustainability and scalability. Currently, Science League only has the capacity to employ only three full-time staff members and needs revenue for overhead costs at the least.

Science League has created some assets that can be leveraged soon to generate revenue. For one, they have successfully developed an interactive website with themed curricula. The organization could explore adding a nominal subscription fee and study how users react. Since students have shown keen interest in the online gaming curriculum, there is a possibility that parents might be willing to pay the subscription fee. Similarly, the online system has an option of creating clubs that enables students to create teams for discussion and collaborative work. Science League should consider targeting schools and community organizations to charge for a club account.

Another potential source of revenue is workshops focusing on topics from the ten themes in the online curriculum. Science League has ample experience with conducting workshops to train students and volunteers, and higher income students, who often aspire to go abroad from higher

education, may be interested in paying for workshops focusing on critical thinking and creativity. To facilitate these workshops, Science League should consider investing in a workshop center so they can design the space to their liking.

In the coming months, Science League's staff should develop a concise financial plan based on projected fundraising options to provide a good sense of their short-term and long-term revenues and expenditure. Hamza and his team should conduct an analysis to understand how much is needed annually to reach a level of financial stability where they can expand their programs to new governorates and hire more full-time workers.

## Establish Partnerships with Key Stakeholders

Science League's mission and programs can be scaled up and sustained if the company networks and establishes partnerships with key stakeholders including schools, foundations, private companies, and the government. Strategic relationships can take Science League to the next level in terms of financial stability and impact.

Science League could partner with private schools in Jordan to extend programming services and teacher training workshops based on existing curricula and market it to administrators of private schools. Science League can attain some revenue through these economically privileged schools.



The same effort can be made with Ministry of Education officials to incorporate some of Science League's services into the public school system. Public schools are in dire need of reform, and adopting some of Science League's services could serve as a good option for the short-term. While this approach might not generate revenue immediately, it could increase reach and enhance the organization's brand name. However, Hamza has noted challenges while approaching and interacting with government officials. Hamza should consider offering Science League materials as an open source initially and push the government to adopt it.

Science League should invest time and effort into building relationships with the corporate sector in Jordan and beyond. Science League's successful track record can be leveraged to the private sector through sponsorships as part of corporate social responsibility (CSR). Science League could bring in much needed financing by entering into MoUs with private companies.

Foundations are the fourth stakeholder Science League should approach since anecdotal evidence suggests that lack of quality education is an issue impacting the broader Middle East. For example, establishing a partnership with a big organization like the Queen Rania Foundation will be mutually beneficial.<sup>4</sup> Science League could also establish partnerships beyond Jordan with well-endowed foundations in Qatar, UAE, and Saudi Arabia, countries also attempting to address education issues.

<sup>&</sup>lt;sup>4</sup> Hamza states that foundations express interest in partnering with small organizations like Science League but they are hesitant to do so (probably) because of legal issues.

The foundations have the funding and brand equity and Science League has valuable intellectual property and on-the-ground experience, creating a win-win partnership.

## CONCLUSION

This is an interesting point in Science League's lifetime as a social enterprise. Since 2012, Hamza and his team have successfully tackled a challenging issue in Jordan, and the Middle East generally by increasing access to and the quality of education. Owing to low-cost programming and intrinsic scalability, Science League has the potential to expand and reach a wider student audience in the country and the region. There are many unknowns regarding future financing and sustainability, but the mission, approach, and projects have been successful. Hamza and his team have reached students in an engaging and encouraging way through technology and gamification. The passion and work ethic of the full-time staff and volunteers is impressive. The initiative is innovative and effective in engaging Jordanian youth. Science League's mission to promote science, analytical thinking, communication, and leadership seems to be swimming against the tide of public schools, and the organization has not been able to disrupt the public education system yet. As Hamza states, "This is just the first step in an effort to make Jordan a knowledge-based economy."

## FURTHER INFORMATION ABOUT SCIENCE LEAGUE

- Science League's Website: http://www.sl.jo/
- Science League on Facebook: https://www.facebook.com/pg/Science.Hero/about/?ref=page\_internal
- Science League on Twitter: https://twitter.com/scienceleaguejo
- Science League on YouTube: https://www.youtube.com/channel/UCS\_gywjpSbIyH9JmYnJ\_f2A
- Hamza Arbsi on LinkedIn: https://www.linkedin.com/in/hamza-arsbi-0852625a/
- Hamza Arbsi's YouthActionNet Profile: http://www.youthactionnet.org/fellows/373/
- Hamza Arbsi's BADIR Profile: http://badir.jo/node/148

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