

Youth for Peacebuilding: A case study of the Establishment of Hemaya Schools for Children to Achieve the SDGs

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INTRODUCTION

The Challenge

In any society a lack of quality education can be caused by several means. Whether it's in developed or underdeveloped countries, quality education can lag behind from factors, which are not only restricted to access of funds. In developed countries, where funds might be available, the distribution of funds or the financial model used to develop the schools are not distributed with high efficiency to develop the educational systems in those schools. In such situations, high funds are used, with an excess budget that delivers an educational system that otherwise can be developed with a lower budget. On the other hand, in countries with a lower budget for establishing schools, resources are not used efficiently to maximize the potential educational gains that can be achieved with a low budget. Another challenge facing new schools entering the educational sector, is the quick adaption that is required for the school's management to stay up-to-date with current and future demands of school education, which has changed significantly in the past few years, especially in educational demands in the Middle East. In this paper, we will look into how a social private school, Hemaya School, managed to adapt rapidly to such changes by maximizing available resources to provide the best quality education possible for its students.

Hemaya School

Hemaya School, an initiative by Dubai Police, was established in September 2018, to provide free education for Dubai Police employees' children. With the aim to ensure that the children of the entity's employees of all nationalities and races are provided with impart quality excellence education under no cost. Within just one year; over 1600 students aged between 5-16 years old have enrolled into Hemaya School. After the successful first year, the school aims to increase the number of students by opening a new high school in the coming school year.

As Dubai Police's ultimate goal is to provide a safe and secure city, Dubai Police's idea behind opening the school was to build a generation of peacekeepers raised on the values of tolerance, peace, and the acceptance of all, from the students' very first steps into school until they graduate. It is predicted that the majority of those children, will

follow into the footsteps of their parents to become policemen for Dubai Police and if those core values are embedded into them from a very young age, in combination with quality education, they will become the future peacekeepers of the country, with the core values of tolerance, peace and inclusion, and they will be well equipped with all what's necessary to be the future leaders in the police sector, before they even start their journey in the police academy.

Education for Sustainable Development

The schools were established with the ultimate goal of providing the highest level of quality education by maximizing all available resources to provide the best educational system to its students. Knowing how it's a challenge to run a private school when providing quality education for free, the school management has set up a way in which the school can run effectively without compromising the quality of education delivered by developing a modern and innovative educational system method. A unique feature of Hemaya school and what distinguishes it from other schools in the region is that the school focuses on implementing the framework education for sustainable development (ESD 2030) as a guideline in achieving its own goals, with the main focus on Sustainable Development Goal (SDG) 3 (Good Health and Wellbeing), SDG 4 (Quality Education), SDG 9 (Industry, Innovation and Infrastructure) SDG 16 (Peace, Justice and Strong Institutions) and SDG 17 (Partnership for the Goals). To ensure this, the school is currently led by the Sustainability Advisory Council of Dubai Police, experienced in the field of sustainability, proving that by setting the SDGs as a target, a school can be run effectively. In addition, by embedding the SDGs in the core of the school's values, and teaching the young children about sustainability at a young age, the future generations will have a bigger role in a more sustainable future world.

METHADODOLOGY

The plan

In January 2019, three months after the official opening of Hemaya schools, a dedicated team from the Sustainability Advisory Council was assigned to lead Hemaya school and initiate the process of transforming the school into a "sustainable school". Dubai Police noticed at an early stage of the importance of quickly adapting the school to the current educational demands. The Sustainability Advisory Council includes staff from various fields, of whom some work in different departments within Dubai Police and was put together in one team, based on their career experience and educational background. Each member of the council was responsible in the implementation of a specific SDG or project within the school, and since they were already employed as Dubai Police staff, no further employment was needed, making it a more sustainable approach in using current human resources available. For example, members of the council were brought in from the Department of Sports Affairs, in order to lead sport related projects such as organizing the sports programs, monitoring the students' fitness etc., staff from the Department of Operations, were brought in to lead the technological transformation of the school, staff from the Department of Forensic Science were brought in to establish curriculums in STEM courses, and so on.

Timeframe

The team set a 6 months plan to transform the school, and to have all changes up and running before the start of the next school year on September 2019. To ensure the implementation of the SDGs, and to quickly adapt to the ever changing educational

sector, Hemaya school management has set the core focus of the school into three main categories: Culture and Arts, Health and Wellbeing, and Technology and Innovation. The projects within those themes were chosen based on several factors, including research on leading schools and educational institutes worldwide that have excelled in providing quality education at the highest level and standard. The projects that have been chosen and the reason behind the decision will be discussed in detail in the results section.

Two approaches were done for the implementation of the projects:

- 1) **Pilot projects.** These projects were designed to run as a pilot study, where a one-year piloting phase will be implemented to measure the effectiveness of the project on the students and a longer five-year plan to measure its long term effectiveness. The measurement plan will be discussed in detail in the Future Work section. Each project to be implemented was studied in detail to look into which educational level the project would be ideal for piloting, for that, the team turned to the literature to see at which level maximal educational input was gained depending on the nature of each project.
- 2) **Full-on project.** These projects were designed to run fully for all students in all the educational levels available at the school. These projects are based on well-established projects that have been implemented similarly elsewhere or have been proven to be effective.

RESULTS

Culture and Arts

One of the main categories of projects the school is currently focusing on is the Culture and Arts program. Through incorporating this program, the school aims to encourage tolerance and inclusion by directly and indirectly promoting free expression. In addition, incorporating such programs, has been shown to have positive effects both on shaping the intellectual capacity of young individuals and on their creative abilities.¹

To accomplish this, the school is focusing on many projects to be incorporated within the program, which include: Language and Culture Learning, Sign Language and Modern Art.

Language and Culture Learning. It is well established that teaching young individuals a second or third language at an early age has a profound effect on an individuals' brain by significantly improving its intellectual abilities and cognitive skills. Such skills are not only restricted to language or speech cognitive abilities. A study by Bialystok showed that children who speak two or more languages have an improved brain executive function, a part of brain that is responsible for planning and problem solving.² An improved brain executive function has three main skills, improved memory, cognitive flexibility and inhibitory control. These skills allow the children to manage their thoughts, actions and emotions.³ An improvement in this brain function helps in ignoring

¹ Bialystok, Ellen. *Bilingualism in Development: Language, Literacy, and Cognition*. Cambridge: Cambridge Univ. Pr., 2010.

² Bialystok, Ellen. "Cognitive Complexity and Attentional Control in the Bilingual Mind." *Child Development* 70, no. 3 (1999): 636-44.

³ Cartwright, Kelly B. "Insights From Cognitive Neuroscience: The Importance of Executive Function for Early Reading Development and Education." *Early Education & Development* 23, no. 1 (2012): 24-36.

distractions, and helps to keep the child focused, in addition to allowing them to easily switch from one topic to another, while still keeping other information in mind.

Learning a foreign language at a young age has also shown to have the ability to boost the creativity of a child.⁴ Collective evidence showed that multilinguals score higher on creativity tests, such as the Torrance Test of Creativity Thinking. A study conducted in the UAE, showed that bilingual individuals had facilitated innovative capacity and had the ability to extract novel and unique ideas.⁵

Furthermore, language learning helps to promote inclusion and diversity. Learning a new foreign language introduces a new culture to the students, thus, indirectly encouraging tolerance, diversity and the acceptance of others. In addition, similar to language learning, some studies have shown that exposure of students to foreign cultures, also has the positive effect on creative performance, however, at a more immediate rate than that seen with language learning alone. One study has shown that exposure of individuals to a foreign culture, increases their creative performance immediately after the exposure. In a study by Leung and Chiu, a group of European Americans were exposed to the Chinese culture for a few days.⁶ Right after the exposure, they were tested on their creative performance, which was seen to be increased significantly when compared to the control group. This can be due to many factors. One probable explanation is due to the creation of unconventional ideas and the receptiveness to different ideas that is originating from foreign cultures, hence building different visions of an idea, which is the basis of creativity.

The Chinese Language and Culture. In line with the school's vision, to promote tolerance and inclusion, the school is adding further languages to its curriculum, in addition to Arabic and English. To achieve this and provide the students with the benefits of the language learning mentioned above. The school decided to add the Chinese language and culture as a new module. Making the Chinese language the third language to be taught to the students. This module will act as a pilot study to see the benefits of learning a third language and to measure whether or not it goes in line with the latest studies mentioned previously. The module will be added for students in Grade 1, 2 and 3 (Students aged 6-10 years old). The reason these ages were chosen initially for the pilot study is that most studies have shown that children at the above mentioned ages absorb languages at a quicker rate. According to a study by Dr. Thompson, a neurology expert at the University of California, brain neurological systems grow at a quicker rate when children are at the age of 6 years old until they reach puberty⁷. At this stage, a child can acquire a language with ease and the brain develops rapidly to form new neurons.

Sign language. In addition to spoken language, the school aims to add sign Language as a core module for all students, to encourage the idea of inclusion and raise awareness of the deaf community. Such awareness campaigns have been very limited

⁴ Diaz, Rafael M., and Cynthia Klingler. "Towards an Explanatory Model of the Interaction between Bilingualism and Cognitive Development." *Language Processing in Bilingual Children*, (1991), 167-92.

⁵ Kharkhurin, Anatoliy V. "The Role of Bilingualism in Creative Performance on Divergent Thinking and Invented Alien Creatures Tests." *The Journal of Creative Behavior* 43, no. 1 (2009): 59-71.

⁶ Leung, Angela Ka-Yee, and Chi-Yue Chiu. "Multicultural Experience, Idea Receptiveness, and Creativity." *Journal of Cross-Cultural Psychology* 41, no. 5-6 (2010): 723-41.

⁷ University of California. "UCLA Researchers Map Brain Growth in Four Dimensions, Revealing Stage-Specific Growth Patterns in Children." News release, 2000. UCLA. http://users.ioni.usc.edu/~thompson/MEDIA/press_release.html.

in the Middle East, in comparison to other regions of the world (in Europe and North America). The school aims to build a generation of sign language speakers whom will not only be able to communicate with the deaf but will also act as ambassadors of sign language and ambassadors of inclusion of People of Determination (legal term used in the UAE to describe individuals with Special Needs).

Furthermore, teaching sign language to speaking students has several benefits, such as improving gross and motor skills.⁸ Some studies have also shown that sign language has a positive impact on improving reading capabilities, as sign language is a visual language, it activates the visual-spatial part of the brain, which is the same region of the brain that is directly linked to reading capabilities. Sign language has also been seen to increase memory retention and stimulates brain development.⁸

The current sign language teaching project will initially act as a pilot study for the next two years. This is to examine the benefits of incorporating a non-spoken language to the curriculum. The pilot phase for the next year will include a specialized module targeted for students in grades 7 to 9 (students aged 12-15), and in the following year it is planned to target grades 5-10 (students aged 10-16). The classes will be provided in collaboration with a local Sign Language Club by an authorized sign language teacher, in addition, to volunteers from the club, that will help in organizing the classes.

Modern Art. One of the main modern arts the school has decided to focus on is modern graffiti art. The school has partnered with graffiti artists across the country to provide free educational programs for students, to learn the modern art of graffiti and to promote free expression through art. The reason graffiti art was chosen is that graffiti helps students to express themselves in any form, not restricted to any canvas or style, allowing students to think creatively and outside the box. In addition, graffiti art has always been looked-down-upon by society, it is a good example to show students on how you can turn something negative to a positive, through the right way of expression and implementation.

TECHNOLOGY AND INNOVATION

Technology and innovation curriculums

In the fast advancing world, with continuous novel technologies being introduced into the world at a faster rate than ever before, it has become vital that schools update new curriculums oriented around technology and innovation. In the past, such curriculums have been under looked in most schools in the Middle East, but with the recent notion on how important they have become in the work field, it's critical to be introduced into schools. To introduce technology to school students, Hemaya school aims to add a new module in the coming school year, robotics and artificial intelligence as core module for all elementary, middle and high school students. The robotics curriculum will be oriented around design and construction of robotics and technological systems. The multi-step curriculum is designed in a way to provide students with progressive content, that starts with providing tailored-made technological kits that teaches the basics of robotics at the early educational stages of school, starting from 1st grade, to more advanced stages year by year, until 12th grade were students would be able to understand and work with

⁸ Hakim, Samantha. *Utilizing American Sign Language in the Early Childhood Setting*. New York, NY: Bank Street College of Education, 2016.

complex robotics systems and automation technology. Students will also learn the basics of coding, where they will understand programming logic and programming languages. Learning such skills equips the students with what's needed for future employment. The benefit of robotics programs is to help teach students how to communicate across different technological platforms. In addition, it teaches essential teamwork skills and can also be the start of students finding their passion in technology and technology advancements. To achieve the above, the school has collaborated with the Department of Artificial intelligence at Dubai Police and robot manufactures in the region to provide robotic kits specially designed for students of elementary and middle school students, that will equip them with the necessary education for them to be able to take advanced robotics at a later stage.

Innovative teaching methods

The school aims to enhance technology used in teaching. Through involving innovation and technology in teaching methods, the school aims to promote creative thinking and innovation among students, through the technology they use in classes. To do so, the school has built an innovation lab, open for all students, to promote hands-on experience and the concept of applying theory to practice through innovation.

In addition, robots are being used as a means to deliver education material to students in a more active way. The benefit of using robots in teaching is that it can be tailored to suit all student needs, through an engaging method. It can also be tailored to suit students of People of Determination, such as children with autism, where the robot can grab the attention of the students in a better, more engaging manner.

Further new courses to be added to the curriculum in the following years also include:

Sustainability Course. After several successful SDGs workshops and the positive engagement obtained from the students, the school aims to add a core module of sustainability into its curriculum, with the aim of introducing the concept of tackling all the SDGs and embedding that into the students from a very young age.

Forensic Science Course. With the growing demand in Forensic Science specializations, Dubai Police aims to develop talents in this field from an early age. To do so, the school aims to add a Forensic Science Course as an elective course for high school students, attracting individuals that might be interested in entering this field in the future.

HEALTH AND WELLBEING

Hemaya's approach to a healthy lifestyle for students aims to deliver three ultimate goals. Firstly, by providing students with a healthy lifestyle, secondly by improving the students' educational performance through physical activity, and finally through confidence building and shaping characters through sports.

A Healthy Lifestyle. Hemaya has established several sports initiatives and projects, to provide a holistic approach system at minimal cost. The physical education program aims to provide students with a program that meets each student's physical needs, mainly focusing on increasing the students' strength, stamina, agility and endurance; and changes gradually depending on the age group. In order to make the above feasible

and easily accessible to all students, the school has collaborated with the Department of Sports Affairs in Dubai Police, to provide consultancy on sports facilities management, sports education programs, and experienced coaches to train the children. In addition, the school has collaborated with several leading sports facilities and sports clubs in the region to sponsor the school and provide the school with high standard sports facilities.

Some notable initiatives within the sports program include: the healthy nutrition program and the future athlete initiative.

The healthy nutrition program. The school has collaborated with experienced nutrition consultants to provide nutritious meals for all students. Studies have shown that the educational performance of students and their mental abilities is affected significantly by their diet and the type of food they eat.⁹ The school will be providing all students with a daily two main meal plans throughout the whole year, that includes breakfast, lunch, and a snack in between. The nutritional meals will be tailor-made to suit students with dietary restrictions, such as diabetes, food intolerances and food allergies.

The future athlete initiative. The future athlete initiative aims to build future athletes, and provides detailed sports programs for all students, including a tailored program for People of Determination. The program is designed to provide monthly detailed reporting on the physical performance of each student, and assigns every student to a sport that matches their physical performance. In order to do the above, the school has collaborated with internal and external partners, to provide every student with the necessary support needed. The school will then link the outstanding young athletes to local clubs to sponsor the students and provide them with extra coaching to further develop their skills. By doing so, the school aims to provide all students with an opportunity to excel in any sport, regardless of the expenses required to develop an athlete.

Impact on educational performance. Recent studies have shown that by ensuring good health and well-being of students, the students' performance and attitude in and out of school improves.¹⁰ It has been well established that cognitive and social skills are shaped early on in children's lives and when physical activities are provided to children at a very young age, the children develop socially and emotionally at a quicker rate.¹¹ This has been seen to be directly linked to academic success and general well-being of students. One study showed that children participating actively in sports had fewer social and emotional problems, and were seen to be more comfortable in school.¹² Another study showed that children that participated in sports, had an improved perspective-taking ability.

⁹ Kim, So Young, Songyong Sim, Bumjung Park, Il Gyu Kong, Jin-Hwan Kim, and Hyo Geun Choi. "Dietary Habits Are Associated With School Performance in Adolescents." *Medicine* 95, no. 12 (2016).

¹⁰ Shaw, Steven R., Paul Gomes, Anna Polotskaia, and Anna M. Jankowska. "The Relationship between Student Health and Academic Performance: Implications for School Psychologists." *School Psychology International* 36, no. 2 (2015): 115-34.

¹¹ Zeng, Nan, Mohammad Ayyub, Haichun Sun, Xu Wen, Ping Xiang, and Zan Gao. "Effects of Physical Activity on Motor Skills and Cognitive Development in Early Childhood: A Systematic Review." *BioMed Research International* 2017 (2017): 1-13.

¹² Eime, Rochelle M., Janet A. Young, Jack T. Harvey, Melanie J. Charity, and Warren R. Payne. "A Systematic Review of the Psychological and Social Benefits of Participation in Sport for Children and Adolescents: Informing Development of a Conceptual Model of Health through Sport." *International Journal of Behavioral Nutrition and Physical Activity* 10, no. 1 (2013): 98.

Confidence and character building. A big benefit of sports and physical activity in schools is that it builds confidence and character in children, and helps to shape their personality.

One of the benefits includes the encouragement of inclusion, to do this all school sports activities are oriented around encouragement of tolerance and gender equality, with daily sports activities and occasional sports open days, to raise awareness of inclusion through sports, within a detailed sports program specified for the different age groups. All sports activities include People of Determination incorporated with all students, eliminating the idea, that we are all different, and building the confidence of all individuals regardless of their capabilities. Since the idea of incorporation of all students was established in the school, people of determination were seen more engaging and more involved in all school activities and not just sports, in addition, all students were seen to be more involved with everyone else. In addition, school students are involved in peacebuilding through sports activities within the community outside of their school, such as initiatives to promote community happiness through sports, and involving the future generation to organize such initiatives within the community, as future leaders. We hypothesize by following this approach, sports initiatives and activities will detour students from taking a wrong path or getting engaged in illegal activities or wrong doings. This has been backed by several studies which suggest that sports activities keep kids away from violence, drugs and other issues adolescents face.

DISCUSSION AND CONCLUSION

Hemaya Schools promote, and continue to contribute to achieve, social, economic and environmental sustainability. Socially the school shapes the students to be the future peacebuilders by teaching them core values of acceptance, tolerance and diversity. The students are nurtured from an early age in inclusive environment that attends not only to educational requirements, but to their needs in sports, arts, talents and innovation. This simplifies social interaction among the students, parents and the schools. Economically, the school saves educational expenditures on Dubai Police employees as their children are educated for free, without jeopardizing the quality of education received. In addition, the management ensures to implement reliable financial models that accommodates for extracurricular activities for the students' talent growth, without burdening their parents with extra costs. Environmentally, the school strives to reduce its energy and water consumption by joining the Government building retrofit and clean energy projects in the short run. The school currently utilizes locally existing buildings that were repurposed for the school's use in line with the educational system standards. Moreover, the school has put in place plans for digital transformation to eliminate printing and adopt online systems to reduce the negative impact of environment.

At Hemaya, we believe that future peacebuilders will not just be policemen and security personnel, the concept of peace and tolerance will be embedded in all students, and will lead to the future creation of artists, athletes, teachers, scientists etc., whom will all be leaders in peace in their own fields. We believe, such projects, can be adapted and replicated in other countries, where peacebuilding schools are established or supported by peacebuilding organizations. Many peacebuilding originations, similar to Dubai Police, have the capabilities to support, run or establish such schools, and build a future generation for a safer city. The schools were established with the ultimate goal of providing the highest level of quality education by maximizing all available resources to provide the best educational systems to its students. What distinguishes Hemaya school from other schools is that the school focuses on achieving the SDGs as a guideline in

achieving a forward moving educational system with the main focus on the SDG 3, 4, 9 and 16. Hemaya school decided to focus on three themes, that have been studied and selected by the school's management: Culture and Arts, Health and Wellbeing, and Technology & Innovation, with all topics being oriented towards equality, inclusion, tolerance and peace. Similarly, such models can be built in other schools in the region, with the addition of adding the SDGs as the ultimate goal for schools to follow. Another core value that is included in all the above themes, which takes a big part of Hemaya school, is incorporating People of Determination with all students within the school, in classrooms and in all its activities. In addition, Hemaya schools emphasize on providing the ideal environment and facilities for People of Determination.

Bibliography

1. Bialystok, Ellen. *Bilingualism in Development: Language, Literacy, and Cognition*. Cambridge: Cambridge Univ. Pr., 2010.
2. Bialystok, Ellen. "Cognitive Complexity and Attentional Control in the Bilingual Mind." *Child Development* 70, no. 3 (1999): 636-44.
3. Cartwright, Kelly B. "Insights From Cognitive Neuroscience: The Importance of Executive Function for Early Reading Development and Education." *Early Education & Development* 23, no. 1 (2012): 24-36.
4. Diaz, Rafael M., and Cynthia Klingler. "Towards an Explanatory Model of the Interaction between Bilingualism and Cognitive Development." *Language Processing in Bilingual Children*, (1991), 167-92.
5. Kharkhurin, Anatoliy V. "The Role of Bilingualism in Creative Performance on Divergent Thinking and Invented Alien Creatures Tests." *The Journal of Creative Behavior* 43, no. 1 (2009): 59-71.
6. Leung, Angela Ka-Yee, and Chi-Yue Chiu. "Multicultural Experience, Idea Receptiveness, and Creativity." *Journal of Cross-Cultural Psychology* 41, no. 5-6 (2010): 723-41.
7. University of California. "UCLA Researchers Map Brain Growth in Four Dimensions, Revealing Stage-Specific Growth Patterns in Children." News release, 2000. UCLA.
http://users.ioni.usc.edu/~thompson/MEDIA/press_release.html.
8. Hakim, Samantha. *Utilizing American Sign Language in the Early Childhood Setting*. New York, NY: Bank Street College of Education, 2016.
9. Kim, So Young, Songyong Sim, Bumjung Park, Il Gyu Kong, Jin-Hwan Kim, and Hyo Geun Choi. "Dietary Habits Are Associated With School Performance in Adolescents." *Medicine* 95, no. 12 (2016).
10. Shaw, Steven R., Paul Gomes, Anna Polotskaia, and Anna M. Jankowska. "The Relationship between Student Health and Academic Performance: Implications for School Psychologists." *School Psychology International* 36, no. 2 (2015): 115-34.
11. Zeng, Nan, Mohammad Ayyub, Haichun Sun, Xu Wen, Ping Xiang, and Zan Gao. "Effects of Physical Activity on Motor Skills and Cognitive Development in Early Childhood: A Systematic Review." *BioMed Research International* 2017 (2017): 1-13.
12. Eime, Rochelle M., Janet A. Young, Jack T. Harvey, Melanie J. Charity, and Warren R. Payne. "A Systematic Review of the Psychological and Social Benefits of Participation in Sport for Children and Adolescents: Informing Development of a Conceptual Model of Health through Sport." *International Journal of Behavioral Nutrition and Physical Activity* 10, no. 1 (2013): 98.