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**IMH  TEP'S**

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**LEGACY ACADEMY**

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**VIRTUAL SCHOOL**  
**PROGRAM**  
**ANNUAL REPORT 2012-13**

## **Introduction**

Imhotep's Legacy Academy (ILA) offers a suite of **Science, Technology, Engineering and Math (STEM)** enrichment programs for junior high, high school, and university students of African descent living in Nova Scotia. This non-profit university-community organization was founded in 2003 with hopes of increasing the representation of African Canadians enrolled in post-secondary institutions in STEM-related programs. The organization's ultimate goal through offerings including the After-School Program, Virtual School Program, First Lego League, and Summer Studentships (ILSS) is to significantly increase the number of African Canadian professionals in STEM fields within Nova Scotia.

Imhotep's Legacy Academy Virtual School Program (ILVSP) is a personalized after school program that provides one-on-one tutoring support to all high school students and grade 9 junior high school students either in-person or online. This free service is offered to all high school students of African descent residing in the province of Nova Scotia. Tutoring is offered for all science and math courses including calculus, biology, physics, and chemistry. In addition to having access to tutors, high school students registered in ILVSP also have access to Dalhousie's Blackboard Learn System which is a database also used by current Dalhousie University students and faculty. On this website, Virtual School students gain access to several other resources such as online explanations of science and math concepts and information about scholarships and bursaries.

ILVSP is designed in such a way that each participant gains equal access to tutoring, while also benefitting from the opportunity to work independently from the comfort of their home. Under this model, students are able to work at their own pace and gain confidence in knowing that help is available to them regardless of where they live.

## **Programming**

This past school year marks the first that Blackboard Learn, Dalhousie University's new on-line system was used to house the Virtual School. Therefore, at the onset of the 2012-13 academic year, the former JPO continued to train Virtual School staff to familiarize them with this new system and the new Virtual School site which was rebuilt by the JPO during the summer of 2012. The former JPO continued to add resources in Physics, Biology, Chemistry and Math, as well as videos and other resources to the Virtual School site. These resources provide assistance to students who can access information on a particular math or science topic on the Virtual School site independently even before or after tutoring hours when tutors are not available. Additionally, information on scholarships was also posted on the Virtual School website where students could easily access this information and begin to prepare to apply for scholarships for entrance to university.

It was also necessary that the JPO correspond with Dalhousie University's On-Line services to assign new passwords to new Virtual School students and to reassign them to former Virtual School students. Students were notified of their log-in credentials (passwords) by individual emails.

Virtual School tutors/mentors also referred to students who had been previously registered in the ILVSP and attempted to contact them to find out if they wished to re-register. Some students re-registered. Tutors found it difficult to make contact with a number of students as some did not make contact after messages were left, or some phones were out of service and emails no longer in use.

### **The Students**

There were 57 students from grades 9-12 in ILASP programming this year. Represented in this number were students from Sydney, New Glasgow, Truro, Antigonish and HRM. Tutoring was delivered either face-to-face or on-line using three computers shared between the mentors and Junior Program Officer. On-line tutoring was delivered via Blackboard Learn (BBL). Students in HRM had the choice of either coming to the office located inside the Killam Memorial Library or logging onto the online system to receive tutoring. Once signed in to BBL, students would proceed to enter one of the classrooms corresponding to the subject in which they required help. ILVSP tutors would already be waiting inside the virtual classroom ready and eager to assist via webcam and/or microphone.

During the winter/ spring semester, it was noted that students in HRM who had transportation to Dalhousie preferred to come in for face-to-face tutoring rather than receiving tutoring online. Attendance records recorded from January 29 to June 19 reveal that there were 85 in-person tutoring sessions compared to only 29 sessions online during this time period. Possible reasons for this preference will be discussed later.

### **The Employees**

ILVSP employed a total of 4 tutors (2 male: 2 female) and 1 Junior Program Officer (JPO) this year. All employees of the Virtual School Program were either current or past Dalhousie University students. The four tutors include two third year Chemical Engineering students, one third year Architecture student, and one PhD student in Electrical Engineering.

The JPO, although new to the position, is not a new employee to ILA. Having worked as a mentor and coordinator with ILA for 5 years, the transition into the JPO position for this employee was a smooth one. The JPO is a recent graduate from Dalhousie University with a Bachelor of Science in Biology and Psychology. In addition to overseeing and coordinating the operations of the Virtual School, the JPO also provided tutoring assistance when required. She

demonstrated the importance of a possessing both management skills to effectively run the Virtual School Program and knowledge of STEM subjects to ensure that students are receiving as much educational support as possible.

## **Employee Training**

Between September 2012 and June 2013, all mentors in the ILVSP tutored two subjects including mathematics and either chemistry, physics or biology. Mentors are also required to take an aptitude test consisting of questions corresponding to the high school mathematics and science curriculum in Nova Scotia. Mentors who gained employment with ILA scored a grade above 80% in the aptitude test in mathematics, physics, chemistry and biology. Mentors are encouraged to stay current with the high school curriculum in Nova Scotia and to frequently review course material in order to be prepared for any question a student may have. This self-studying is encouraged because at any time the JPO or Executive Director could choose to give a mentor an aptitude test if they suspect the mentor is not adequately fulfilling their duties as a tutor.

Additionally, all employees in ILVSP take part in the professional development (PD) sessions planned for all ILA staff held twice per year. At these sessions, employees are given an opportunity to learn more about the educational history of African Nova Scotians and how to best serve our students. Our staff has the opportunity to speak with African Nova Scotian Student Support Workers, teachers, and other professionals of African descent from the community who play an integral role in the education and progress of students of African descent in Nova Scotia. These sessions are informal, yet informative allowing ILA staff who may be international university students, or students from outside of Nova Scotia to freely ask questions or address concerns about anything related to their work in the STEM education of African Nova Scotian youth.

Workshop topics this past year included 1) "The Educational Realities of African Nova Scotian Learners in the Classroom", which was facilitated by Sylvia Paris, Manager of the African Nova Scotian Affairs Integration office, HRM and 2) "Supporting African Nova Scotian Learners: Addressing Social Issues that Impact their Academic Success", which was facilitated by Adrienne Glasgow, Guidance Counselor at Prince Andrew High School. Student Support Workers, administrators, parents, current ILA students and ILA Board of Program Directors were invited to attend the second session to create a more collaborative approach to this discussion. During the fall PD Session, staff also participated in a round-table/round Robin format discussion facilitated by current and retired educators who provided staff with tips for working with African Nova Scotian students. Virtual School staff provided positive feedback on these workshops and the round Robin discussions indicating that the knowledge shared was

indeed beneficial and relevant to their work as ILA mentors and will be beneficial to them as they continue to tutor and mentor ILA participants.

In addition, these training sessions also gave ILA employees an opportunity to be mentored by Dalhousie professors and other professional scientists of African descent. These sessions allow ILA employees to be held accountable for their work and ensure that they possess the scientific knowledge required to effectively fulfill their roles. The PD sessions also help the tutor/mentor to better understand their students and, therefore, are in a better position to help them.

The PD sessions have been well received by all who participated and many individuals have described the 2012-13 sessions as the most successful ones the organization has hosted. Cultural awareness and understanding is a crucial skill that employees of ILA need to develop prior to working with African Nova Scotian youth. Thus, sessions on such topics are included in every ILA PD session and should continue to be included in the future.

## **Participation**

The level of student participation in ILVSP is difficult to represent with percentages. This is due to the fact that although fewer students sought tutoring online, the number of students who came into the office for face-to-face tutoring increased remarkably throughout the year. In addition, field trips, conferences, and workshops were incorporated into the program this year, which was not done in previous years. These new additions to programming, especially the tutoring workshops, proved to be very popular amongst our students. Each of these activities will be described in detail in the following sections.

## **Tutoring**

**Overall:** A total of 132 one-on-one tutoring sessions were recorded this year with our busiest season being between the end of January and the beginning of June. During the winter-spring semester, on average, approximately 23 one-on-one tutoring sessions occurred each month. The least active month of student participation was in February with only 11 recorded instances of students coming into the office or online for tutoring. The winter weather probably affected those students who preferred to access tutoring in person. However, student participation increased significantly as the year progressed. The most active months of student participation were April and May with 29 and 31 documented tutoring sessions, respectively. Virtual School staff attributed this rise in participation to the fact that end of year exams were quickly approaching during this time of year and students felt the pressure to study and perform well at this time.

**Online:** As mentioned previously, there were 29 recorded instances of students using the online system to receive tutoring from January 29 to June 19. There were two students who used this online feature most frequently. The first was a female student from

Dartmouth who found it more convenient to receive tutoring from home than to travel to Halifax. The second and most active online participant was a male student from New Glasgow. Despite the fact that this student registered later in the school year for the Virtual School, this student quickly became one of the most active participants in the program.

One issue unique to the online aspect of the virtual school program was the technical problems encountered between students and tutors when trying to connect online. One of the ILVSP tutors had this to say about the frustration he often feels while tutoring online: "...we generally do not have enough time to go through students' homework problems online. This is simply because it generally takes longer (almost twice as long) to solve a problem online than in-house."

It should be noted, however, that whereas in the past, problems associated with connecting to the Virtual School site were due to issues with the Dalhousie on-line system, this year, these issues were usually due to incompatibility with the software on students' computers. Even when such challenges occurred, VS tutors were able to improvise by tutoring students on Skype, which was used to tutor a New Glasgow student when he initially started with the ILVSP.

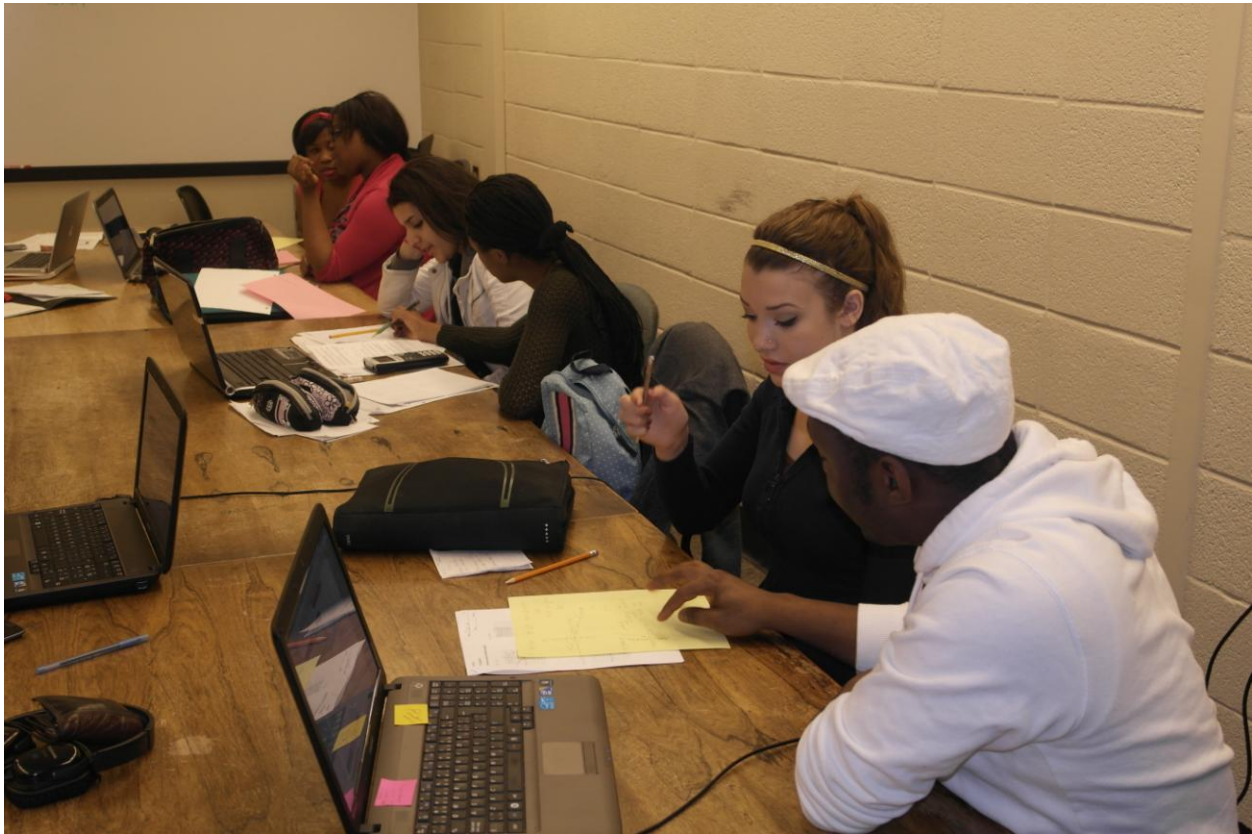
**In-Person:** In person tutoring was most popular this year and most frequently used by students living in Halifax. Students who lived in Halifax had an easier time finding transportation to and from Dalhousie University, whether it was taking the bus, walking, or getting a ride with family and friends. From January 29 to June 19, there were 85 recorded instances of students coming in to the office for tutoring, almost 3 times those recorded online. When students came to the office for tutoring, tutors would help the students work through their homework at a large table in the center of the office. Students were also permitted to use the ILA laptops and printer with tutor supervision. On occasion, tutors assisted students with projects and, although their specialty subjects include science and math, they also helped students with their writing when required.

## Sessions

Newly added to programming this year was the ILA Virtual School Tutoring Workshop Sessions. Initially, one session was organized to introduce new students to the new online system, allow them to meet their tutors in person, and also give students the opportunity to meet other students registered in the program across Nova Scotia. Students were invited to participate in a Saturday tutoring event and encouraged to bring their schoolwork and laptops. The first session occurred on January 19, 2013 during our second Professional Development Session for the year. This session was also intended to serve as part of the training for the Virtual School employees. A total of 10 students participated in the PD session (6/10 participated in the Virtual School training, while the remaining 4 participated in the training for the After-School Program). Due to the positive response received from both students and tutors, it was decided to integrate more of these sessions into the program throughout the year. Thus the JPO, under the supervision

of the Executive Director, planned and organized a total of 4 Virtual School Tutoring Sessions between the months of January and June.

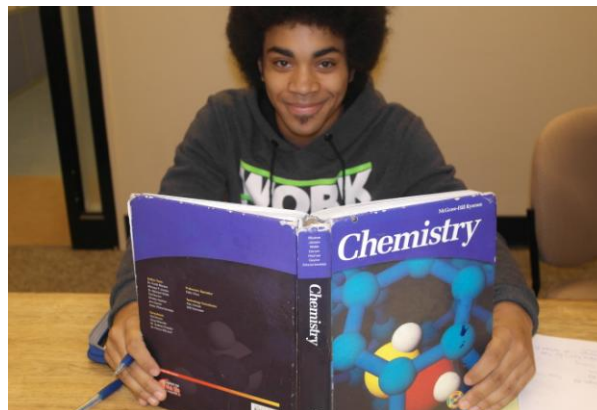
Three subsequent tutoring sessions were held on March 9, May 4, and June 8. Over 10 students attended each tutoring session held. During subsequent sessions, invitations were extended to all students registered in the program. Thus, ILA made it possible for any student registered in the program to travel to Dalhousie University and attend the in-person workshops in math and science. The Maritime Bus Company and Casino Taxi were used to provide transportation for the students, depending on where a student lived in relation to Dalhousie University. ILA covered all expenses for these workshops, including transportation, meals and welcome packages which encouraged the students to continue to attend in the future.



**Figure 1:** Some of the tutors and students who attended the Virtual School tutoring session on May 4, 2013.



**Figure 2:** ILASP mentor, Ellen Fesseha, tutors ILVSP grade 9 student, Tobi Otti, in mathematics. Tobi is also this year's recipient of the ILVSP 'Student of the Year' award.



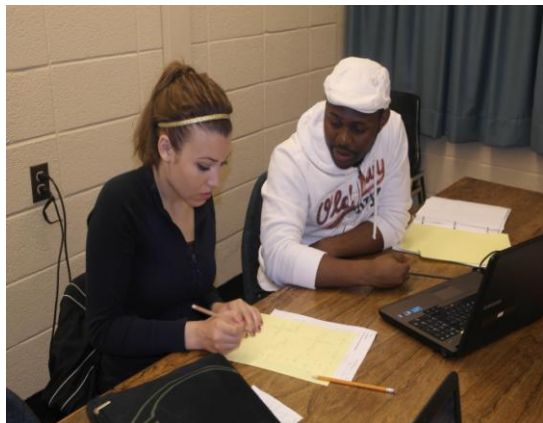
**Figure 3:** Sydney ILVSP student, Brandon Skeete, happily showing off his chemistry textbook as he prepares for his exam.

Figures 1 & 2 illustrate how the tutoring sessions were set up. Students and tutors sat around one large table while tutors circulated the table offering help to students when requested and ensuring that each student was on the right track with their work. Since the workshop sessions became so popular with ILVSP students, additional tutors were required to ensure that each student had the help he/she needed during the workshop. To meet this demand, the JPO called on After-School program mentors for tutoring support as well.

It was soon noted that while students really seemed to be benefitting from the tutoring sessions, it was difficult to cover all the material with every student in such a short period of time. Out-of-town students had to be back on the bus by 3 p.m. in order to arrive home the same evening. As a result, students travelling from Sydney, Cape Breton were not able to attend these sessions because their bus would not arrive in Halifax until at least 2 pm, only 1 hour before the bus leaves Halifax for the return trip. For this reason, it was decided that ILA would host an overnight tutoring session to allow those students from further away to also participate.

It was also noted that due to the limited time available for a Saturday session, there was little opportunity for social bonding among tutors and students. Most of the time was spent solely focusing on students completing their homework and preparing for tests. Therefore, on May 4 a third tutoring session was held. This time the hours of the session were extended from 10 a.m. to 9 p.m., instead of 10 a.m. to 3 p.m. After successfully completing the session of tutoring during the day, students were taken to Bowlarama Bowling Alley in Halifax for bowling and a pizza party with their mentors. Students from out-of-town got to spend the night in Halifax at a hotel, an expense also covered by ILA. A total of three students travelled that weekend from out-of-town: one from New Glasgow, the second from Antigonish, and the third from Sydney, Cape Breton. The JPO and a mentor chaperoned the students staying overnight at the hotel and they returned to their respective homes the following morning.





**Figure 4:** ILVSP tutor, Franklin Che, tutors ILVSP student, Jasmine Fraser, in mathematics.



**Figure 5:** Two ILSVP students from Dartmouth High working together to solve a math problem.

Several requests were made by students to have an additional tutoring session just before their final exams to help them prepare. Thus, on June 8, 2013, the fourth and final Virtual School Tutoring Workshop Session was held. This session was more geared towards exam preparedness in its approach and students were specifically asked to bring the material their teachers gave them to study for their final exams including worksheets, class notes, and review sheets. Some students used the time to work independently in a quiet space, whereas other students were gathered to accomplish a similar goal (pass their exams). Other students required a lot of help and the mentors were there to assist. Regardless of the students' level of preparedness for their exams, the tutors and mentors were there to support and encourage them every step of the way.



**Figure 6:** Some of the mentors and students at Bowlrama Bowling Alley participating in the ILA social event held on May 4, 2013.

## Fieldtrips

Fieldtrips were not offered in previous years to Virtual School students. However, this year, students had several opportunities to expand their knowledge and participate in a variety of educational activities.

**Girls2013 Conference: An Equal Voice in Leadership:** The Girls 2013 Conference was an event hosted by the Institute for Women, Gender and Social Justice at Mount Saint Vincent University. The conference was held for high school girls and university/college women during International Woman's Week on March 6, 2013. The Executive Director and Junior Program Officer at ILA accompanied 6 Virtual School students to the conference (2 from Prince Andrew High School, 1 from Dartmouth High and 3 from Halifax West). During the conference, participants were inspired by other women leaders and encouraged to raise their leadership voices. Participants also learned effective ways to express themselves, present themselves, and make a difference in their communities.

**Raise Your Voice, It's Your Choice: Youth Engagement Conference:** The "Raise Your Voice, It's Your Choice: Youth Engagement Conference" was a collaborative effort between various organizations including Leaders of Today (LOT), Heartwood, and Phoenix House. The conference was held at Mount Saint Vincent University with the goal of engaging black youth and encouraging them to raise their voice and speak out about the issues that matter to them most. Topics discussed included government, school, media, and relationships. The JPO was active on the planning committee for the conference, particularly as it relates to student recruitment. The JPO also used the conference to promote ILA and its mission to encourage youth who were not yet involved to become informed and register in the program for tutoring assistance in math and science. A total of 26 ILA students attended this conference, 10 of which were registered in the Virtual School Program. Heartwood covered the cost of Maritime Bus tickets for 5 Virtual School students who travelled from Truro, Antigonish, and Cape Breton to attend. Heartwood also covered the hotel expenses for those students, plus two chaperones to stay overnight at the Future Inn Hotel in Halifax.

**Discovery Days at Dalhousie University (Chemistry/Psychology):** Discovery Science Days is an annual event organized by the students and faculty members of Dalhousie University's Faculty of Science departments including physics, chemistry, mathematics, biology, and psychology. Discovery Days are designed to introduce students, grades 6-12, to fun and practical applications of science, and aim to encourage youth to consider pursuing these fields in their post-secondary endeavors.

This year ILA arranged for Virtual School students to attend Discover Psychology Days. The JPO brought 4 virtual school students on this field trip (2 from Prince Andrew High School and 2 from Dartmouth High). Students got the opportunity to tour the Psychology

Department as well as receive a fun and exciting lecture on psychology similar to that received by first year psychology students at Dalhousie University. The students really enjoyed learning about psychology. After the presentation, two of the students even stated that they are now considering taking psychology in university and expressed interest in pursuing the subject as a degree.

Imhotep's Legacy Academy After-School Program students were taken to Discover Chemistry Days. At this event students took part in an exciting, hands-on science show in a first year chemistry classroom and also conducted two experiments in a first year chemistry laboratory. One of our Virtual School students was permitted to attend this field trip due to the fact that he was in grade 9 and exhibited a strong interest in chemistry. This student was also very active in the program and won the award for ILVSP student of the year (discussed later).

Overall, the Discover Days at Dalhousie University are an excellent way to give the students an idea of what university life entails while also opening their eyes to the many opportunities that knowledge of science can offer. This event makes for a great fieldtrip for our students and should continue to be offered to them in years to come.

### **TD Bank Opportunity Scholarship**

ILA has partnered with TD Bank to create a four-year renewable scholarship opportunity for outstanding ILA program graduates entering Dalhousie University, provided they enroll in a STEM related program of study. The purpose of this scholarship is to help decrease the financial barriers for African Nova Scotian students pursuing post-secondary studies in STEM related fields. ILA students who are nominated by ILA staff due to their active participation in the program and demonstrated interest in STEM are eligible for this scholarship. Nominees are required to submit a completed application form, including a 500 word essay, two letters of reference (including one from and ILA staff member) and a transcript. In order for this scholarship to be renewed each year, students are required to remain involved in STEM initiatives, particularly ILA programs.

This year, ILA received six applications from both Virtual School and After-School Program participants. The competition was tight as only three awards are given out each year at the Closing Ceremony. This year's recipients were Isaiah Reade (After-School and First Lego League participant in Halifax-Oxford School), Teanna Sparks (After-School, First Lego League, and Virtual School participant in Halifax-Oxford School), and Haley Matthews (After-School and First Lego participant in Truro- Truro Junior High).

Recipients of this year's scholarships were recognized at the Closing Ceremony held in Antigonish at the Charles V. Keating Center, Saint Francis Xavier University. Students were given a certificate honouring their achievement along with a promise of up to \$5000/year upon their acceptance and registration in a Dalhousie STEM related program. Renewal of the scholarship is granted each year for up to three additional years. A university GPA of 2.7 or

above is required to renew the scholarship in following years. Table 1 demonstrates how the scholarship is awarded.

**Table 1:** Chart depicting scholarship amount awarded to students.

| Grade                            | 7     | 8     | 9     | 10    | 11     | 12     |
|----------------------------------|-------|-------|-------|-------|--------|--------|
| Future Annual Award at Dalhousie | \$500 | \$500 | \$500 | \$500 | \$1000 | \$2000 |

As shown in Table 1, students are awarded a scholarship amount dependent on the grade they are in when they receive

the award. Each consecutive year that they remain active in an ILA program, an additional amount can be added to their total to a maximum of \$5000/year. For example, one of this year's scholarship recipients, Teanna Sparks has just completed the 9<sup>th</sup> grade. Thus, she will receive the \$500 corresponding to the amount given to a recipient in grade 9. If Teanna continues to remain active in the program, namely, in the Virtual School program, she is eligible to receive additional funding for each year she remains active. Therefore, if Teanna remains active all three years of high school, she stands to gain an additional \$3500 bringing her scholarship total to \$4000/year upon her acceptance to and registration in Dalhousie University.

This is only the second year of the scholarship. Previous TD Bank Opportunity Scholarship recipients Latisha Reynolds and Tamara Phee had their awards renewed each year due to their continued participation in ILA's Virtual School Program and After-School Program, respectively.

Through this scholarship, the goal and mission of ILA continue to be reinforced as these students' dreams of attending university can now become a reality. Students who may not have envisioned themselves pursuing post-secondary education because they lacked financial security can now regain hope in the fact that financial support is available to them.

### Closing Ceremony

In May of every year, ILA hosts its annual Closing Ceremony event where students and staff are acknowledged for their work and commitment throughout the year. Students, their families, school administrators, funders, and community members are invited to share in the celebration of our youth. This year's Closing Ceremony also marked a milestone for ILA: its 10th year anniversary. Inspired by the 2013 theme for African Heritage Month, the theme of this year's Closing Ceremony was *Living the Legacy: Then and Now*. It was hoped that this theme would inspire all connected to ILA to reflect on how far the organization has come in terms of the number of African Nova Scotian students it has served as well as its many accomplishments.

**Stem Showcase:** The ceremony began with a STEM Showcase, which included several student displays of their favorite activities presented in ILA programs over the past year. Under the

guidance of their program coordinators and mentors, students designed poster presentations as well as hands-on demonstrations of their favorite science experiments to perform for the guests attending this event. In addition to the presentations made during the STEM Showcase, other students from various program sites presented their activities during the Closing Ceremony itself (See Appendix A for Closing Ceremony program & itinerary).

One of ILA's Virtual School Students, Habiba Cooper Diallo, also set up a table during the reception to inform guests about an organization she has founded and continues to organize: the Women's Health Organization International (WHOI). At the young age of 16, Habiba who aspires to become a medical doctor became the Executive Director of her own non-profit organization and because of her great initiative and determination, has been an inspiration to all at ILA.



**Figure 7:** ILVSP participant Habiba Cooper-Diallo raising awareness about her organization WHOI at the 2013 ILA Closing Ceremony as she speaks to guest speaker Dr. James West .

All of the activities and presentations were a huge success and it was encouraging for staff and community to see the students so excited about educating their guests on what they had learned throughout the year.

**Guest Speakers:** Two keynote speakers, Dr. James West and Dr. Nadya Mason, joined ILA during the celebration and addressed the audience. Dr. James West, an African American inventor, born in Virginia in 1931, offered words of wisdom and advice, inspiring students to be innovative and dream big. Dr. West holds 47 US patents along with over 200 foreign patents from his forty-year career at Bell Laboratories. Dr. Nadya Mason, also from the United States, obtained her Bachelor of Science degree in physics from Harvard University, a doctorate in physics from Stanford University and now serves as associate professor in the physics department at the University of Illinois Urbana campus. Dr. Mason spoke about her journey from being a young African-American female pursuing a degree in science to becoming the brave, intelligent, and highly respected scientist that she is today. She encouraged students to never give up and to not allow society to dictate what they can accomplish in their lives.



**Figure 8:** Dr. Nadya Mason addressing the audience at the 2013 ILA Closing Ceremony.



**Figure 9:** Dr. James West addressing the audience at the 2013 Closing Ceremony.

The JPO, who has also been an ILA employee for the past five years, also addressed the audience, particularly ILA students with a speech. Cinera States has been a mentor for ILASP since she began her undergraduate degree at Dalhousie University in 2008. Upon her graduation in 2012, Cinera continued working for ILA in the positions of ILASP program coordinator for HRM and then later became the Junior Program Officer. In March, 2013, Cinera was accepted to Dalhousie University Medical School. Her journey through her undergraduate degree, applying to medical school, and finally being accepted has been shared with students whom she mentors. Thus, it was only fitting to have Cinera address the students at the Closing Ceremony. Cinera spoke to the ‘Now’ of the ‘Then and Now’ theme and encouraged the students to pursue their dreams, reminded them of their potential, and demonstrated, by example, that they, too, can

overcome the barriers to education and achieve anything they set their minds to accomplish. (See Appendix B for Cinera's speech)

The inspiring words of Virtual School and After-School ILA student Asia Jones told a story which truly exemplifies ILA's mission. Asia boldly informed the Closing Ceremony audience that ILA's programs have been instrumental in her journey from being a student on an Individual Program Plan (IPP), to being able to access help through ILA and successfully get off the IPP. A grade 9 student, Asia aims to pursue academic math and science courses in high school with the aim of becoming a STEM professional in the future. Asia's speech was both motivating and encouraging, especially to all students attending the Closing Ceremony. She also stands as a living testimony of the positive impact of ILA's programs on the academic experiences and achievement of African Nova Scotian students

**Student Awards:** In addition to the words of inspiration the youth received, they were also awarded for being inspirations themselves. This year 7 students were awarded "Student of the Year" awards. A student from each ILASP site: Halifax, Dartmouth, Truro, Antigonish, and Sydney, one student from ILVSP, and one student from the First Lego League program were chosen to receive this honour. Student of the year recipients received a trophy as well as Samsung Galaxy Tablet this year. Students were not aware of the award they would be receiving this year until they were told to look into their gift bags at the Closing Ceremony. When they pulled out the tablets from the gift bags, their expressions were priceless. The winners of this year's Student of the Year awards are listed in Table 2 below.

**Table 2:** 2013 'Student of the Year' winners. ILASP = Imhotep's Legacy After-School Program, ILVSP = Imhotep's Legacy Academy Virtual School Program, ILFLL = Imhotep's Legacy First Lego League.

| Name                | School/Site                               | ILA Program | Short Biography   |
|---------------------|---|-------------|---|
| Brianna Green       | St. Andrew Junior High/Antigonish         | ILASP       | <b>Grade:</b> 7 (1 <sup>st</sup> year in ILA)<br><b>Career Goal:</b> Registered Nurse (RN)        |
| Asia Jones          | Oxford School/ Halifax                    | ILASP       | <b>Grade:</b> 9 (3 <sup>rd</sup> year in ILA)<br><b>Career Goal:</b> Pediatrician                 |
| Eriana Willis-Smith | Caledonia Junior High/Dartmouth           | ILASP       | <b>Grade:</b> 7 (1 <sup>st</sup> year in ILA)<br><b>Career Goal:</b> Singer                       |
| Haley Matthews      | Truro Junior High/Truro                   | ILASP       | <b>Grade:</b> 9 (3 <sup>rd</sup> year in ILA)<br><b>Career Goal:</b> Medical Doctor               |
| Kaycee Rodney       | Whitney Pier Memorial Junior High/ Sydney | ILASP       | <b>Grade:</b> 8 ( 2 <sup>nd</sup> year in ILA)<br><b>Career Goal:</b> Registered Nurse or Teacher |
| Isaiah Reade        | Oxford School/ Halifax                    | ILFLL       | <b>Grade:</b> 9 (3 <sup>rd</sup> year in ILA)<br><b>Career Goal:</b> Engineer                     |
| Tobi Otti           | Fairview Junior High/ Halifax             | ILVSP       | <b>Grade:</b> 9 (1 <sup>st</sup> year in ILA)<br><b>Career Goal:</b> Architect                    |

Students who demonstrated outstanding attendance and participation were also awarded the opportunity to attend a SuperNova week-long science camp to be held during the summer of 2013. Over 40 ILA students from various program sites were awarded a SuperNova Camp certificate, signifying the chance to attend one of these camps in their area of residence, if they so desire. A SuperNova Camp representative was on hand to present these certificates.

**TD Bank Opportunity Scholarships:** Also awarded at this year's Closing Ceremony were the recipients of the TD Bank Opportunity Scholarship. Two students, Isaiah Reade and Haley Matthews who received the 'Student of the Year' award, also received the TD Bank Opportunity Scholarship. A third student, Teanna Sparks, received the scholarship as well. Teanna was a grade 9 student at Oxford School, member of ILASP and ILFLL. Like Isaiah, she was also a member of the winning FLL team at Oxford - "Legos 'R' Us" - who brought home the Mechanical Design Award and Michelin Award during the February 2, 2013 provincial competition held at Acadia University. Teanna's future career goal is to attend Dalhousie University and become a pediatrician. TD Bank representative, New Glasgow Branch Manager attended the ceremony and presented the awards to this year's scholarship recipients.



**Figure 10:** The three TD-Bank Opportunity Scholarship recipients (from the left: Haley Matthews, Isaiah Reade, and Teanna Sparks) receiving their award from TD Bank representative, Gayle Macdonald – Branch Manager, New Glasgow.

In addition to honouring ILA's junior high and high school participants, ILA also recognized four Dalhousie University students at the Closing Ceremony. ILA has partnered with Dalhousie University Faculties of Engineering, Medicine, and Science to offer summer research opportunities students of African descent who are pursuing STEM education. See Table 3 for a list of this year's recipients.

**Table 3:** ILA Summer Research Award recipients.

| Name                | Research Area  | Short Biography   |
|---------------------|--|---|
| Rufus Alubankudi    | <b>Clinical:</b> Comparing two surgical procedures to prevent sub-arachnoid aneurysmal bursting or re-bleeding in Sub-Arachnoid Hemorrhage (SAH) | <b>Birth Place:</b> Nigeria<br><b>Education:</b> Pursuing a Bachelor of Engineering: Chemical Engineering<br><b>Career Goal:</b> Medical Doctor   |
| Gaidah Khashmelmous | <b>Microbiology &amp; Immunology:</b> Cancer Immunology  | <b>Birth Place:</b> North Sudan<br><b>Education:</b> Pursuing a Bachelor of Science: Microbiology & Immunology<br><b>Career Goal:</b> Medical Doctor or PhD with focus on cancer immunology |



|                     |  |  |
|---------------------|--|--|
| Tamunoemi Greg Duke | <b>Engineering:</b> Chemical Engineering | <b>Birth Place:</b> Nigeria<br><b>Education:</b> Pursuing a Bachelor of Engineering: Chemical Engineering<br><b>Career Goal:</b> Engineer              |
| Leah Jones          | <b>Medical:</b> Cochrane Review          | <b>Birth Place:</b> Nova Scotia, Canada<br><b>Education:</b> Completed Bachelor of Science Degree: Biology, 2013<br><b>Career Goal:</b> Medical Doctor |

Overall, ILA's 2013 Closing Ceremony was a huge success. The accomplishments of our students, both ILA participants and mentors, were outstanding this year. Additionally, ILA enjoyed the company of 150 persons attending the ceremony, including students, staff, board members, family and community members, junior high and high school administrators, funders, and Dalhousie University and St. Francis Xavier University faculty and staff. This healthy attendance was particularly remarkable since the Closing Ceremony was held in Antigonish, the location of one of our smaller sites, therefore requiring that most attending travel a far distance to support ILA. The large number of persons attending the ceremony also provided the perfect opportunity to expose persons from various Nova Scotian communities to the importance of STEM outreach to African Nova Scotian youth and to raise awareness of the significance of ILA's efforts. In celebration of the founders of this great organization, special tribute was paid to the three ILA founders who were present at the ceremony: Barb Hamilton-Hinch (Professor, Faculty of Health and Human Performance, Dalhousie University and ILA Board of Program Directors Member) Wayn Hamilton (Executive Director, Office of African Nova Scotian Affairs), and Dr. Kevin Hewitt (Associate Professor, Department of Physics and Atmospheric Science, Dalhousie University). In addition to numerous testimonies of ILA's success, the celebration of the organizations 10th anniversary, the gathering of distinguished academics, scientists, engineers, and other STEM professionals of African descent was an excellent way to motivate and inspire African Nova Scotian youth, their families and community members in general.

### **Community Outreach/ Student Recruitment**

This past year a number of community outreach and student recruitment efforts were made. The Executive Director led efforts to reach out to various regions in Nova Scotia. The following section will highlight the work done this year to create awareness of ILA and increase student involvement.

#### **1. Information Sessions**

- **New Glasgow**
  - Wednesday, February 6
  - Executive Director and JPO travelled to North Nova Education center to present on ILVSP to parents and students in New Glasgow

- African Nova Scotian Student Support Worker at North Nova Education Centre assisted in promotion and recruitment of parents and students to attend the event
- 2 students & 3 parents in attendance
- 3 students signed up and became active participants in the program
- **Hammonds Plains**
  - Meeting was set up, but no parents or students showed up
  - Information on ILA posted weekly in the Emmanuel Baptist Church bulletin and Executive Director gave live announcements to congregation during Sunday services.
  - Executive Director and ILVSP Tutor provided information on the ILVSP to teens working at a Summer Day Camp in Upper Hammonds Plains (August)
- **Sydney, Cape Breton**
  - Met with principal at Sydney Academy
  - Was unable to schedule an ILVSP information session but was advised by principal to make contact at the beginning of the 2013-14 school year
- **Annapolis Valley**
  - African Nova Scotian Student Support Worker was contacted and tentative dates for ILVSP information sessions tentatively set.
  - No success in confirming a date for information session
  - Attempt made to contact Coordinator of Race Relations for the Annapolis Valley Regional School Board.  
Additional attempts should be made in future years
- **Preston (East & North)**
  - JPO planned with community worker and ILA summer employee, Lameia Reddick, to hold an ILA information session and parent meeting
  - North Preston location will be the North Preston Recreation Center
  - East Preston location will be the East Preston Recreation Center
  - Plan is to host two separate meetings on different days, but extend invitations for both sessions to members in each community giving parents two opportunities to attend
  - Session will take place before the start of the 2013-14 academic year
- **Truro**
  - Executive Director attended a parent meeting hosted by ILASP staff and promoted all ILA programs, providing registration forms and flyers
  - Executive Director met with Student Support Worker of Cobequid Education Center to provide ILVSP information and updated

equipment for students to log-in to Virtual School from their school location

- **Antigonish**
  - Executive Director and ILASP-Antigonish Program Coordinator collaborated with administrative staff and Student Support Worker at Dr. John H. Gillis High School to plan an event to recruit Virtual School students
  - Event held in January. ILASP Coordinator and one mentor met with African Nova Scotian students and presented on the ILVSP program

## 2. Organization Meetings

- **African Canadian Services Division Meeting with Student Support Workers.** Executive Director, JPO and Virtual School mentor presented on ILVSP, ILASP and ILFLL (November 16)
- **BEA Meeting (Dartmouth).** Meeting with BEA Regional Educator for the Dartmouth Eastern Halifax County and representatives of the Cherry Brook Education Committee, and Dartmouth East Education Committee to promote the ILVSP (February)
- **STEM Committee through BEA (3 meetings)**
  - Executive Director represented ILA at several meetings and promoted all of ILA's programs with other organizations' representatives around the table.
  - WISE, Department of National Defense and BEA representatives also partners
  - Meeting held to become knowledgeable about what other groups/organizations are doing and to brainstorm ways of promoting STEM to African Nova Scotian youth.

## 3. Community Events

- **Upper Hammonds Plains, African Heritage Month celebration led by Matt Whynott, MLA.** Executive Director presented on ILVSP. (February)
- **Truro Talent Showcase during African Heritage Month.** Executive Director promoted ILSVP, ILASP and ILFLL (February)

- **TD Bank Event at Pier 21.** Information Table set up to promote ILVSP, ILASP, ILFLL. (March)
- **Medical School Information Event, North Branch Library**  
JPO, ILVSP mentor and ILASP students attended. (March)
- **African Nova Scotian Youth Engagement Conference** - JPO held information session on STEM careers and encouraged youth to register in Virtual School.(April)
- **ILA Closing Ceremony** - Information Table was set up to promote ILVP (May)
- **Family Fun Day - Dartmouth East Education Committee - Dartmouth Boys and Girls Club.** Executive Director attended and set up table promoting the ILVSP and ILASP. (July)

#### 4. Other

- **Promotion & Distribution**  
ILAVSP flyers and registration forms were also distributed throughout the year to organizations including the African Diaspora Association of the Maritimes, Women in Science and Engineering (WISE), African United Baptist Association Churches (AUBA), NSCC's African Canadian Transition Program, BEA's Regional Educators and to various parents and community members.

#### Parent Involvement

Attempts were made in Sydney, Antigonish, Truro, Halifax and Dartmouth to initiate ILA Parent Associations in an effort to improve parent knowledge of ILA and participation in ILA.

In all locations parents were invited to attend the opening Magic Show event, where fascinating science activities were displayed and the Parent Association was promoted. Other parent meetings were held at sites including Sydney and Truro, while other sites combined parent meetings with other social activities being held for the students (for e.g. a movie night). Additionally, parents were invited to participate in Professional Development sessions to share their expertise on how ILA can better serve their children.

The uptake of parents interested in joining the ILA Parent Association was discouraging as only a few parents in Halifax demonstrated some interest. Rather than being daunted by this low response, however, the JPO and Executive Director, in collaboration with these parents revamped ILA registration forms to include a question asking parents directly if they would like to be involved in the ILA Parent Association, and if they would like ILA to add them on to the organization's Facebook page. These parents also worked with the Executive Director to put a plan in place to target ILA parents early on in the school year.

Parent information was sought on registration forms so that contact could be made with them during the year by phone and or email. However, it was found that it was difficult to make contact with parents due to work schedules, parents not checking email on a regular basis, or not returning phone calls. The opposite proved to be true as it relates to parents who dropped their children off to the Killam to be tutored in person. These parents remained in contact and mentors could readily speak to them about their child's progress.

With the new restructuring of ILA's governing body into a Board of Program Directors, a seat for a Parent Representative was included on this board to serve as a voice for ILA's parent group. We are pleased to report that this seat has been filled with a parent who has continued to be engaged in ILA programming during the years of his child's involvement. As the student of this parent will be starting the Virtual School program in September of 2013, we look forward to the work he will do to assist the Executive Director and JPO in building ILA Parent Associations across the province.

### **Annual Good News Stories**

This year, there was so many good news stories about ILA staff and students that a new section of the report had to be added. In this section, the success and achievements of individuals associated with ILA will be highlighted and discussed. The actual news articles and/or additional resources illustrating the successful year ILA has had in the media are attached in the appendix and can also be accessed via the web links provided.

1. ILA's Junior Program Officer, **Cinera States** graced the pages of the Chronicle Herald on May 24, 2013. The article entitled "Mentor to Med School", describes Cinera's journey from an undergraduate student and ILA mentor to her application to and acceptance into Dalhousie Medical School. Cinera hopes that her story can inspire other African Canadian students to pursue careers in the STEM field despite the observable and systemic barriers that may be facing them. Visit the following link to learn more. <http://thechronicleherald.ca/novascotia/1131288-mentor-to-med-school>
2. ILA Summer Research Award recipient, **Rufus Alubankudi**, was the recipient of the Slight Family Scholarship from Dalhousie University this year. Dalhousie's Bold Ambitions Campaign, the largest fundraising effort in the university's history, made this scholarship possible. Rufus is grateful for all of the opportunities he has received during his time studying at Dalhousie University and is a proud member of the ILA team. Visit the following link to learn more. <http://www.dal.ca/news/2013/05/17/from-the-ivory-coast-to-the-east-coast.html>
3. ILVSP participant **Habiba Cooper Diallo**, founder of WHOI, was named one of Canada's Top 20 Under 20 award recipients this year. WHOI is a non-profit organization

that Habiba founded after reading an article in the Wall Street Journal about Anafghat Ayouba, a young woman who suffered from obstetric fistula in Niger. Inspired by Avouba's story, Habiba began campaigning for the many women who suffer from the condition. Habiba's goal through WHOI is to encourage women of Africa and the African Diaspora to self empower through health and education. Visit the following link to learn more. <http://sharenews.com/teenager-among-top-20-under-20-canadians/>

4. Two ILVSP students have graduated from high school this year and have gain acceptance into various universities. **Brandon Skeete**, a Sydney Academy graduate, will be pursuing a Bachelor of Science degree at St. Mary's University. Brandon's ultimate goal is pursue entrance to medical school and become a medical doctor. **Shanni Cyrus**, Citadel High graduate, will be starting at Dalhousie University this fall, pursuing a degree in Chemical Engineering. Shanni is the daughter of ILA's President of the Board of Directors, and Associate Dean of Engineering, Dr. Pemberton Cyrus.
5. Current ILVSP student and past ILASP student **Kaitlin Johnson** volunteered with ILA as a junior leader at Caledonia Junior High (CJS) this year. Kaitlin has been involved with ILA for the past 5 years. In her early years as a grade 7 student at CJS, Kaitlin was the only ILA participant in her grade. Cinera States (past grade 7 mentor and current JPO) mentored Kaitlin each week. Despite the fact that Kaitlin was often the only student in attendance, she still showed up each week excited and willing to learn. Kaitlin believes that it is because of the mentorship she received from Cinera, and the other mentors at ILA, that she has now set career goals for herself and wishes to pursue a career as a Marine Biologist. Kaitlin hopes to offer this same type of mentorship to students younger than herself and to one-day impact the lives of students like her ILA mentors have done for her.
6. ILVSP and ILASP student **Teanna Sparks** was featured in Global Morning news broadcast on May 10, alongside Executive Director, Késa Munroe-Anderson to promote ILA. Additionally, **Teanna Sparks** is also a member of the ILA First Lego League (ILFLL) team of Oxford School which won the Mechanical Design and Michelin Award at the FLL Provincial Competition held at Acadia University on February 2. This team - "Legos 'R' Us" beat out over 30 teams to capture these awards. Visit the following links to learn more. <http://globalnews.ca/video/550915/science-education-program>  
<http://www.dal.ca/news/2013/01/31/rockin--robots-ready-to-rumble.html>  
<https://www.dal.ca/news/today/2013/02/27/kudos-to-the-imhotep-legacy-academy.html>
7. ILVSP and ILASP student **Asia Jones** successfully graduated from the IPP level she was on in math and science and advanced into a regular academic class due to the help of ILA

tutors and mentors. Asia gave a testimony of this experience at the annual Closing Ceremony last May. A copy of Asia's speech is located in Appendix C.

8. ILVSP mentor, Ifunanya Kammelu, JPO Cinera States and ILA volunteer and former FLL coordinator, Ibimina Koko were awarded the \$7000 African Canadian Services Science Profession Scholarship. Ifunanya and Ibimina will use this scholarship to continue their studies in Engineering, while Cinera will use hers as she begins her Medical School education in September 2013.

### **Future Directions**

Although ILA made several improvements to the Virtual School Program this year, there are still ways to grow and progress. This section will provide some suggestions for ILA to pursue next year and in the future.

1. One of the main challenges that needs to be addressed is the low number of students using the online system for tutoring. While the in-person attendance continued to increase, the number of students logging in for online support is not. Possible ways to increase these numbers would be to put incentives in place to encourage students to log-in online. For example, Virtual School students who use the on-line system most frequently could be recognized as "Student of the Month" and given a small prize and recognition by photo on the VS site and the ILA Facebook page.

Also, each year, one Virtual School student is awarded "Student of the Year". The student of the year is chosen based on participation (both online and in-person), commitment to the program, and overall positive attitude and love for STEM subjects. If we stipulate in the criteria that the ILVSP "Student of the Year" must also actively use the virtual aspects of the program, this may encourage student activity online.

Another possible way to raise the on-line activity would be to post an attendance record online. If student attendance could somehow correlate with some type of "point system" allowing students to gain points/rewards for logging online, student activity online could potentially increase. After gaining so many points, for example, a student may be eligible to redeem a reward (i.e. gift card to their favorite restaurant or clothing store). ILA started a Virtual School log-book system in January 2013 which proves that this may be effective at increasing on-line tutoring. The ILA tutors created an attendance binder to manually track the students using ILVSP services both in -person and on-line. Those students who came in for face-to-face tutoring often saw the attendance binder on the table. When news circulated about the Virtual School "Student of the Year Award", this ignited friendly competition between two Virtual School students to achieve the best attendance record.

In future years, it is hoped that this office attendance binder that created such healthy competition between two Halifax participants can spark the same type of competitive incentive online for Virtual School students across the province.

2. The Virtual School Tutoring Workshops were extremely popular with students, mentors, and parents this year. Therefore, it would be a good idea to continue to integrate the sessions into the program. However, it would also be a good idea to hold some class-based workshops. For example, the current workshops involve students bringing in the homework or study materials that they need help understanding. In future years, there could also be a separate workshop (held every other Saturday or one Saturday a month) dedicated to one particular subject or concept. Tutors could send home a class description to parents and students describing the material that they will be covering in the workshop and students could then decide if they wish to attend based on whether or not the subject applies to their educational needs. This kind of workshop could be beneficial if implemented correctly and students may benefit from a workshop that is more streamlined in what it intends to teach. These workshops could also be offered virtually as on-line participation increases. These sessions would not be intended to replace the Virtual School sessions ILA currently holds, but to simply compliment them.
3. Building on the class-based workshop idea, it would also be a good idea to develop a tentative schedule of all of the workshop dates early in the year and send this calendar out to students and parents so that they could prepare for these events. Recognizing the fact that parents and students likely will not know their exact schedules for the year, providing them with the calendar could help them remain aware of ILA activities and hopefully plan their events around the workshops that ILA offers. In addition, parents and students could also provide feedback about the workshop schedule, including the topics that will be discussed. Giving parents and students the opportunity to request certain topics or certain dates for a workshop may help ILA participants feel more in control of their education and also make them more inclined to participate in something that they played a part in planning.
4. It would be a good idea to have a workshop to help students apply for scholarships and provide students with information about scholarships and bursaries available to them. This workshop could even serve as a time to inform students about the TD Opportunity Scholarships available through ILA. This year was the first year students were asked to submit an actual application for the TD Bank Scholarship and, for some of the students nominated, this was their first time applying for a scholarship. Such a workshop could provide assistance to those students who have never written scholarship essays and could even provide students opportunities to receive reference letters from faculty members and staff at Imhotep's Legacy Academy.
5. As Imhotep's Legacy Academy is expanding and the in-person tutoring is becoming more and more popular among the Virtual School students, it is necessary that ILA moves to a larger space that is more conducive to hosting a larger group of students at once. While



the library, in itself, is a large space, the ILA office is not. When more than 2 students visit for face-to-face tutoring, the office becomes crowded. This issue deserves serious consideration and action in the near future if we will be able to continue to accommodate a growing number of in-person students for tutoring in the future.

6. While ILA is doing positive work with African Nova Scotian youth, our services still need to be more widely advertised as a number of persons still do not know that ILA exists. For this reason, hiring a person dedicated strictly to marketing and publicity of ILA and its programs would be a wise investment. This person could also potentially create opportunities for more African Nova Scotian students to gain employment if this position was made available to Business and Commerce students as co-op or regular employment.
7. This year, the Executive Director and JPO travelled to different regions of Nova Scotia to recruit students in the program. In future years, it would be a good idea to have the Virtual School tutors travel to these regions as well. Although tutor's class schedules may not always permit them to travel, efforts should be made to have at least one tutor present at each information session. This would make it possible for some of the students who do not live in Halifax to benefit from the same face-to-face contact with their tutors that the HRM students receive on a regular basis.
8. In future years, ILVSP should aim to begin offering programming and resources to their students in September rather than later in the school year. A cross-over in staffing of the JPO contributed to a slower start at the beginning of the 2012-13 academic year. However, in the coming year, information sessions in various communities should be held as early as possible in the fall. In addition, the JPO, with the help of the ILVSP tutors, should begin calling the previous year's students at home to determine if they wish to re-register with the program. Parents should also be informed about the proposed start date for programming as soon as possible.
9. Currently, paper copies of student registration forms are kept on file in the office. Searching for students under this current system is very time consuming and tends to get confusing. A new student tracking system should be developed to keep all students' information on a computer database allowing for information to be accessed more efficiently. Of course, this system would have to be monitored and only select employees would have access. The paper system could still remain. However, a computer tracking system would provide a second method of record keeping while also making the management of that information a lot easier.
10. This year, the Executive Director asked ILASP Program Coordinators to assist with promotion of the ILVSP in their respective areas across the province. This effort should be continued in future years, perhaps with these employees being asked to dedicate an additional three paid hours per week which would be strictly devoted to promoting and

recruiting for the Virtual School. In the past, ILA has been missing the physical presence of an ILVSP representative in specific areas across the province outside of HRM. These efforts would be effective in improving future recruitment and participation in the ILVSP.

11. ILA has hired a Summer Student to gather information from former and current ILA participants, parents, employees, partners, volunteers, board members, and school administrators, etc. on how the organization has been fulfilling its mission over the years. As this Summer Student interviews and surveys those who have been involved with the ILVSP, we look forward to finding additional new ways to improve upon this and other ILA programs.

## **Conclusion**

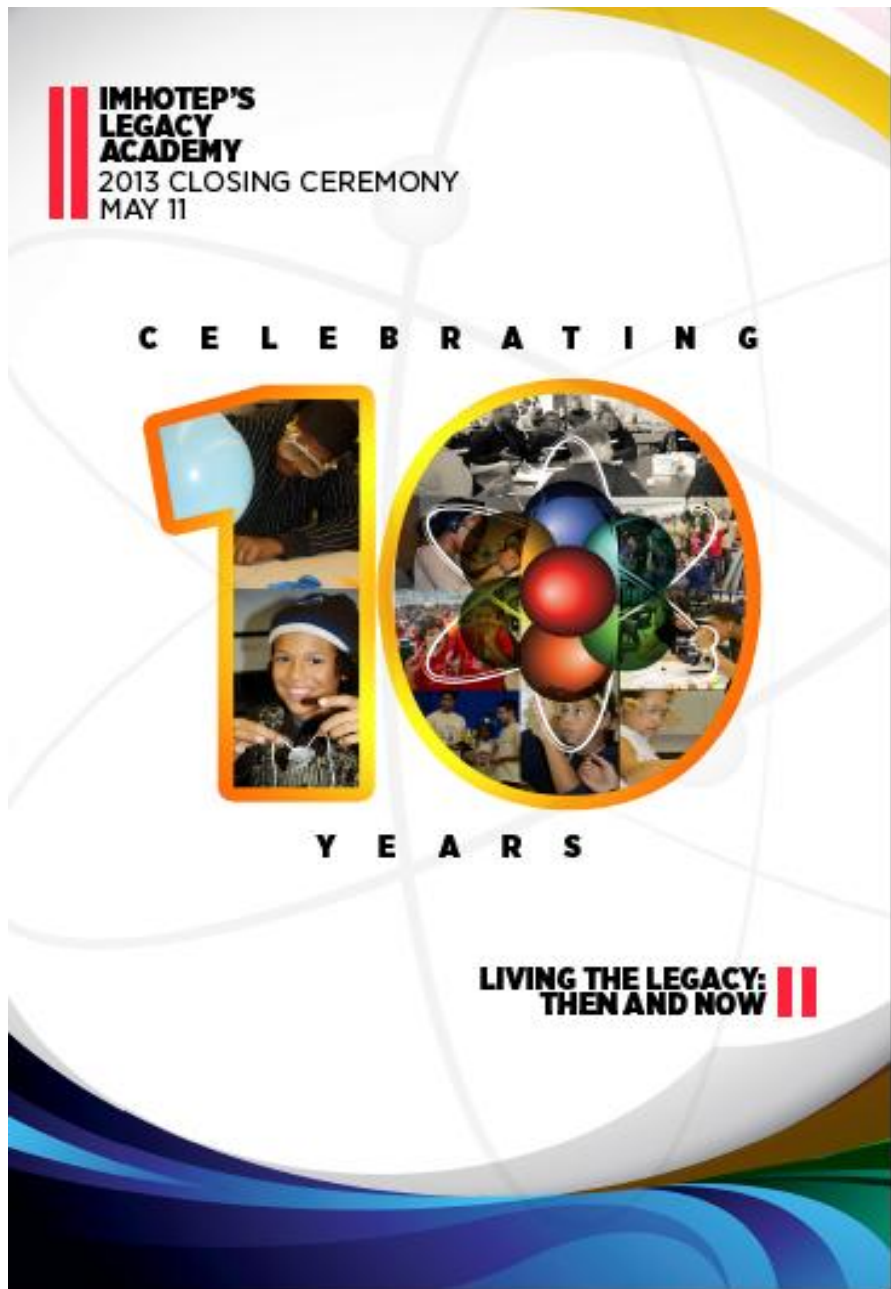
Imhotep's Legacy Academy has had a very successful year. The organization has experienced success not only within its programs, but also with its individual students and employees as well. Of the 10 years providing science enrichment opportunities for youth, this year has definitely been one of the most productive. ILVSP, especially, has benefitted significantly from the progress that has been made this year, with the introduction of new student recruitment strategies, increased parent involvement, and outreach. Despite this progress, there is still potential for growth and improvement. With the proper staff, resources and supports in place, ILA could be in a position to reach even more students in subsequent years. The ILA team looks forward to working more closely with the community, particularly other organizations serving African Nova Scotian youth across the province to continue offering STEM enrichment opportunities to students. Through strengthened partnerships in the communities where we currently exist – Antigonish, Sydney, Truro, New Glasgow, and HRM, and new partnerships in others, we are confident that we will also be able to expand our programs to include an even greater representation of African Nova Scotian youth across Nova Scotia.

**Report completed by: Cinera States - JPO**

**Késa Munroe-Anderson - Executive Director**

Appendix A

Closing Ceremony Program 2013





## CELEBRATING 10 YEARS OF INFLUENCE

### MCs

Dr. Afua Cooper -*James R. Johnston Chair, Dalhousie University*  
Mr. Wade Smith-*Principal, Highland Park Junior High*

### Order of Events

STEM Showcase & Reception

Prayer-*Rev. Emmanuel Mutale*

National Anthem-*Eriana Willis-Smith (Caledonia Student)*

Lift Every Voice and Sing-*Jamie Sparks (Parent)*

Opening Remarks-*Dr. Kevin Hewitt*

Participant Remarks-*Kameron Sparks (Antigonish) &*

*Asia Jones (Halifax)*

Science Activity I-*Truro*

Dinner & Slide Show

Guest Speaker-*Dr. Chadwick Williams*

Student Testimony-*Haley Matthews (Truro)*

Guest Spealer-*Cinera States (JPO)*

Keynote Speakers - Interview Panel

*Dr. Nadya Mason, Dr. James West*



Student Awards & Sponsorship Presentations

ILA TD Scholarship Awards-*Gayle Macdonald (TD Bank Rep.)*

Science Activity II-*Antigonish*

Students of the Year-*Site Coordinators*

SuperNova-*Ben Parker*

Post Secondary Summer Research Awards

Science

Medicine

Engineering

Closing Remarks-*Wayn Hamilton ANSA*

# BIOS



## **Dr. James West**

Ninety percent of microphones used today are based on the ingenuity of Dr. James Edward West, an African American inventor born in Virginia in 1931. If you've ever talked on the telephone, you've probably used his invention.

Dr. West and a colleague, Gerhard Sessler, developed the mic (officially known as the Electroacoustic Transducer Electret Microphone) while at Bell Laboratories, and they received a patent for it in 1962.

The acoustical technologies employed became widely used for many reasons including high performance, acoustical accuracy and reliability. It is also small, lightweight and cost effective.

West started at Bell labs as an intern and joined them full-time in 1957 after graduating from Temple University. As the inventor of the microphone, James West has received numerous awards and honours including a Fellow of IEEE, Industrial Research Institute's 1998 Achievement Award, 1995 Inventor of the Year from the State of New Jersey, and induction in the Inventors Hall of Fame in 1999. Dr. West holds 47 U.S. patents and more than 200 foreign patents from his 40-year career at Bell Laboratories.

During his career, West also involved himself with programs designed to encourage racialized students to take more of a role in the sciences. In the 1970s, he was a member of the Association of Black Laboratories Employees (ABLE) at Bell Labs that influenced management to fund programs that helped more than 500 non-white students graduate with degrees in science, engineering and mathematics.

Dr. West now works with Johns Hopkins University as a research professor.



## **Dr. Nadya Mason**

Dr. Mason received her bachelor's degree in physics from Harvard University in 1995 and her doctorate in physics in 2001 from Stanford University, working in the group of Aharon Kapitulnik. Her thesis research was on phase transitions in two-dimensional superconductors.

Prior to joining the physics faculty at University of Illinois, Mason was a Junior Fellow in the Society of Fellows at Harvard University, where she collaborated

# BIOS

on projects related to both carbon nanotubes and nanostructured superconductors.

Dr. Mason's research at University of Illinois focuses on how electrons behave in low-dimensional, correlated materials, where enhanced interactions are expected to give novel results. She is particularly interested in the effect of reduced dimensionality and correlations on electron coherence. Mason plans to take advantage of modern fabrication techniques to make and study a variety of nanostructures, such as quantum dots and wires, as well as arrays of superconducting dots.

So far Dr. Mason's research has focused on the quantum behavior of nanotubes and on 2D and nanostructured superconductors. In both of these areas, her previous work has allowed us to gain insight into coherence and correlations in low-dimensional materials.

Dr. Mason's numerous awards and honours include the Maria Goeppert Mayer Award (2012); Center for Advanced Study Fellow (2011-2012); Denice Denton Emerging Leader Award (2009), and the National Science Foundation CAREER Award (2007-2012).

## **Dr. Chadwick Williams**

Dr. Williams, from East Preston, Nova Scotia, graduated from Dalhousie University with a Medical degree in 2004. He completed his internal Medicine residency at the University of Calgary and specialized in gastroenterology, graduating in 2009. From 2008-2009, Dr. Williams was the Chief Gastroenterology Resident. Currently, Dr. Williams is a gastroenterologist specializing in inflammatory Bowel Disease (IBD) at Saint John Regional Hospital in New Brunswick. He is completing an IBD Fellowship with Cedars-Sinai Medical Center, Los Angeles, California. Dr. Williams has had numerous publications and affiliations and in his spare time he enjoys golfing, chess and travel.



## **STUDENT BIOS**

*Brianna Green*, an enthusiastic seventh grade student of St. Andrew Junior High, enjoys a challenge and is always excited about learning something new during the After-School Program. Not only is Brianna's attendance record excellent, but she encourages her peers to attend the program regularly as well. Brianna is respectful, fun-loving, hard-working and dedicated to ILA's program. Her self-driven motivation makes her a role model to all. Brianna's career goal is to become a Registered Nurse.

# BIOS

A social 'butterfly', *Asia Jones* has been a participant in the Oxford School After-School program for the past three years. Asia's outstanding determination to improve her grades, particularly in science, has resulted in higher marks this semester. This student's admirable work ethic also resulted in her becoming a Virtual School student this year. Asia is a proud cheerleader and aims to become a pediatrician in the future.

A seventh grader at Caledonia Junior High School, *Eriana Willis-Smith* is a model student who has demonstrated respectful behaviour and a readiness and desire to learn more at each session. Eriana always displays a positive attitude about enhancing her education. She does not hesitate to assist her peers in understanding science concepts or to ask her mentors for help with her homework when required. Eriana enjoys science class, doing experiments, volunteering and singing.

*Haley Matthews* is an exemplary leader in both the After-School and FIRST Lego League (FLL) programs at Truro Junior High School. A ninth grader, Haley has been a star participant for the past three years, and her enthusiasm and excellent work ethic have been contagious. An inspiration and mentor to her peers, Haley has taken the initiative to train two of her team members to take over her role as lead programmer on the FLL Team when she leaves for high school. Haley's favourite subjects are math and French and she plans to live out her passion to help the sick and needy by becoming a medical doctor.

*Isaiah Reade's* commitment and dedication to Legos 'R Us, his FIRST Lego League(FLL) team at Oxford School, is extraordinary. In fact, his outstanding leadership as the team's lead programmer and coordinator played a major role in their win of the Mechanical Design Award for their robot at the 2013 FLL provincials at Acadia University. An ILA student for three years and sometimes the lone student at FLL sessions, Isaiah's exceptional drive and determination to overcome challenges and always perform at his best make him an example to his peers. Isaiah loves chemistry and plans to become a Chemical Engineer in the future.

*Kaycee Rodney* is an eighth grade student who has demonstrated exemplary commitment, reliability, respect and enthusiasm during her involvement in the Sydney After-School program. A second year ILA participant, Kaycee has an excellent attendance record and consistently shows genuine interest in program activities. Kaycee, who is known for her positive attitude and outgoing personality, is interested in a future career in nursing or education.

*Teanna Sparks* is a conscientious and intelligent ninth grader who has been an ILA After-School Program participant for the past three years. A member of the successful Oxford FLL team "Legos 'R' Us", Teanna is a team player who has demonstrated a positive attitude and excellent attendance. Teanna loves science and math and aims to be a pediatrician in the future. She is grateful for her ILA journey and is now confident that she can achieve her goals.



#### **SUMMER RESEARCH AWARDS**

*Rufus Alubankudi*, originally from Nigeria and raised in La Cote d'Ivoire, is pursuing a Bachelor of Engineering in Chemical Engineering at Dalhousie University. Although his academic background is in engineering, Rufus' future academic and career aspiration is to pursue medicine and ultimately practice in Canada. This summer, Rufus is undertaking a clinical research study to compare the two surgical ways (clipping and endovascular coiling) to prevent sub-arachnoid aneurysmal bursting or re-bleeding in Sub-Arachnoid Hemorrhage (SAH).

Faculty of Engineering awardee *Tamunoemi Greg Duke* is beginning his third year of a Chemical Engineering degree at Dalhousie University. A Nigerian, Duke's research this summer will focus on chemical engineering, and in the future he sees himself conducting more research in the area of manufacturing and processing to devise a more efficient and faster way to process raw materials. Duke aims to have his own chemical plant someday.

Faculty of Medicine awardee *Leah Jones* is a biology major at Dalhousie University and native of Dartmouth, Nova Scotia. Leah serves as a mentor in the ILA After-School Program at Oxford School. She will be graduating this spring with a Bachelor of Science degree and plans to pursue a career in the medical field.

*Gaidah Khashmelmous*, a native of North Sudan, is in her third year of a Bachelor of Science degree in Microbiology and Immunology at Dalhousie University. In the summer of 2012, Gaidah also gained a Summer Studentship with ILA. Recipient of this year's ILA- Faculty of Science Summer Research Award, Gaidah plans to pursue a MD or PhD that focuses on Cancer Immunology.



**Staff Members**

|                      |                               |
|----------------------|-------------------------------|
| Kesa Munroe-Anderson | <i>Executive Director</i>     |
| Cinera States        | <i>Junior Program Officer</i> |
| Donna McDermott      | <i>Office Administrator</i>   |

**Coordinators**

|                |                          |
|----------------|--------------------------|
| Emmanuel Anom  | <i>Truro</i>             |
| Nicole Brown   | <i>HRM</i>               |
| Reynaldo Dames | <i>FIRST Lego League</i> |
| Aaron Marsman  | <i>Sydney</i>            |
| Alma Zalo      | <i>Antigonish</i>        |

**Mentors**

|                      |                       |
|----------------------|-----------------------|
| Frederick Amon-Armah | Franklin Mbende       |
| Ebenezer Asamany     | Leah McConney         |
| Rania Fashir         | Chinakwu Odenigbo     |
| Samia Fashir         | Ikenna Oguejiofor     |
| Ellen Fessha         | Philippa Ovorjiodida  |
| Leah Jones           | Chevy Phillips        |
| Ifunanya Kammelu     | Prabakar Ravichandran |
| Ernest Korankye      | Beretam Yaako         |
| Sade Lopez           |                       |

**Program Directors**

|                             |   |
|-----------------------------|---|
| Dr. Pemberton Cyrus         | <i>Associate Dean of Engineering<br/>Dalhousie University</i>       |
| Ms. Adrienne Glasgow        | <i>Guidance Counsellor<br/>Prince Andrew High School</i>            |
| Prof. Barb Hamilton-Hinch   | <i>Assistant Professor Leisure Studies<br/>Dalhousie University</i> |
| Dr. Kevin Hewitt            | <i>Associate Professor of Physics<br/>Dalhousie University</i>      |
| Ms. Lorna Little            | <i>Admin. Assistant<br/>Office of Human Rights and Equity</i>       |
| Dr. Wilber Menendez Sanchez | <i>Faculty<br/>NSCC</i>   |
| Ms. Oluronke Taiwo          | <i>Black Student Advisor<br/>Dalhousie University</i>               |
| Dr. Keith Taylor            | <i>Associate VP Academic<br/>Dalhousie University</i>               |

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## **Appendix B.**

### **Closing Ceremony Speech – Cinera States (JPO)**

Good evening. First off I just want to say how great it is to see everyone gathered here this evening. This is the first year that I played an active role in actually planning and organizing this event so I am very happy that you could all make it here this evening to celebrate 10 years of Imhotep's Legacy and another successful year completed by our students.

My journey with Imhotep's Legacy Academy has been an amazing one. It all began during my first week at Dalhousie University when I met a loud, yet wonderful woman named Barb Hamilton. I believe the first thing Barb asked me was what I was studying at Dalhousie and as soon as I said science, she began her persuasive sales pitch about Imhotep's Legacy and how great a job it is for university students. At the time, though convincing in her arguments, I did not attempt to follow up on the job position. Instead, for a reason I still do not understand, I wanted to work for a campus painting company. Never painted a day in my life mind you, but for some strange reason I had convinced myself that painting was the student job for me.

The day I went to inquire about the painting job, I ended up getting lost in the Student Union Building and stumbled upon a group of ILA members. I remember us all just looking at each other. Me wondering if they were the group of painters and them wondering if I was the girl scheduled for the interview with them that afternoon. To make a long story short, after a few moments of discussion they encouraged me to send in my resume and apply for the mentor position. An interview and a serious attempt to convince me to switch majors to physics by Kevin, I was an ILA employee. I truly believe that second meeting with Imhotep's Legacy Academy was no coincidence and that becoming a mentor for this organization was a job that I was meant to do.

Imhotep's Legacy Academy has changed a lot since I first started working there. There have been changes in the staff, students, science activities, and even the logo. However, the change that I most wanted to see this year was parent involvement. I have been to four closing ceremonies in the past and I honestly do not remember a ceremony that I felt was well represented by our parents. This year in my new position as junior program officer, I really wanted to try to get parents more involved. Thus, I especially want to thank the parents who came out tonight because it is very important that we support our youth in all that they do, whether it is athletics or academics. These students are worthy of being celebrated today. While others may rush home after school to see the latest updates on Facebook or sit in front of the TV playing video games, these students have made the conscious decision to stay behind after school and continue learning. So I applaud all of you who have actively participated in the ILA programs this year whether it has been the After-School, Virtual School, or First Lego League. I

congratulate you for making your own decision to participate in ILA despite what your peers may say or think about it.

Through all of this, I want you all to remember that nobody else can dictate the person you want to be. You have the power to design your own life plan, live your own legacy. If you don't take control and design it yourself, somebody else will do it for you. Thus, I encourage you all to continue on this path you have already begun with Imhotep. You all have the ability to be whatever you want to be. All you need to do is believe in yourself. I have worked with a lot of you so I have seen, first hand, your potential. You all have the tools necessary to succeed. Do not allow anything or anyone to stand in the way of your dreams. Financial barriers should not be an impediment to your education or success. Believe me, money is available. You just have to have the patience and commitment to seek it out. I never had the money for my undergraduate degree and I surely do not have the money to pay for medical school. However, that is not something I choose to focus on. I have decided to focus more on the rewards of the opportunity of gaining a better education rather than the financial debt it may bring. You too, can find the resources to fund your education. Try not to focus too much on the financial aspects of it just yet. Instead commit yourself to improving your grades and being the best student that you can be. If you do this, I promise, everything else will fall into place.

I know some of you may be thinking, "What is Cinera talking about? Just because she did it doesn't mean that we can too." Well, my response to you would be that I once felt as though I could not reach my goals as well. We all have our moments of feeling insecure, but that does not mean that we are not capable. Last summer while I was studying for the MCAT, I got to a point during my studies that I no longer believed I could do it. I remember taking a practice test only a few weeks before my actual test and still not getting the scores I hoped for. I remember calling my brother crying and he told something I will never forget. He said, "Whether you think you can or think you cannot, either way you will be right". From that point I realized that I could either a) believe that I will never get scores good enough to get into medical school or b) make the decision to believe in myself and my ability to succeed. My conversation with my brother inspired me to look over all of my previous practice tests and go over every question I did wrong. Not only go over it, but also force myself to understand why I answered that question wrong. I wrote the MCAT a few weeks later and I am proud to say that I got through it. Not only did I get through it, but I also achieved my goal of getting accepted into Medical School. This story is not to scare you out of applying to Medical School, but to show you that what you think is difficult right now, with some hard work determination, you can learn to understand and overcome. Just think about the pioneers like Dr. West who we have here with us tonight or female inspirations like Dr. Mason who had to endure even greater challenges to get to where they are today. After all that they have done to pave the way and create better opportunities for us, the least we can do is work hard and study in school.

I know there are times when you may feel as though the world is against you, your teachers are against you, and your peers just do not understand you. In fact, I was just having a conversation with a few of the ILA students two nights ago. I would just like to remind you that those before us overcame racial barriers that we cannot even imagine having to face today. I encourage you to

focus less on what teachers may think or feel about you at the moment and focus more on the student that you wish to be. If you focus on being a student who works hard, respects others, and has a good attitude, then chances are you will attract that same positivity from those around you. I also want you to remind you that we are all in this together. None of us could be where we are today without the love and support of one another. When you feel as though nobody understands you, just remember your Imhotep family, a family that was created for the very fact that we understand you and your needs as a black student.

If there is one thing I have learned through this whole experience it is that opportunities are everywhere. It is our job to recognize these opportunities when they are presented to us and take advantage of them. Imhotep's Legacy Academy, in itself, is an amazing opportunity. I encourage you all to take every opportunity that comes your way and do not let them go to waste. It is now our responsibility to walk through those doors that those before us have opened up and continue on with this legacy. Once we have achieved our goals, however, it is also our responsibility to give back. It is our responsibility to ensure that the next generation is aware of the paths that we have taken to achieve our success and ensure that they are afforded even greater opportunities than we are today.

In closing, my experience with Imhotep's Legacy Academy has been a great one. I know that I have done a lot to serve the youth, but what Imhotep has given me in return is way more than I could ever offer. Believe it or not, the entire ILA family has been one of the biggest motivators for me throughout university and my pursuit of getting into medical school. To my co-workers, I thank you all for being so willing to work as a team and making every day at work with you fun. To the supervisors, Kesa, and Board of Program Directors. I thank you for the continuous support and encouragement. To Dr. Mason and Dr. West, thank you for your perseverance, strength, and innovation. You both truly are an inspiration.

Lastly, a huge thank you goes out to my students. I thank you all for being the best break from university stress a person could ever ask for. Even on your loudest, most hyper days, I knew that I could always get a good laugh from you. Mentoring for Imhotep allowed me to feel like a kid again and I must admit, I am guilty of actually acting crazier than the students at times. I may even be guilty of encouraging a little foolishness every now and then, but really that is what it is all about. We have to find the fun in all that we do and I deeply thank you all at Imhotep's Legacy for making fun come so easy.

Thank you

## Appendix C

### Closing Ceremony Speech – Asia Jones (IAVSP, ILASP)

Hello, my name is Asia Jones and I am 15 years old. I am in grade 9 at Oxford school in Halifax. I've been with the Imhotep's Legacy Academy After-School Program for 3 years now. It is a great program. I have learned a lot by being in this program. I've learned and experienced different types of activities that I wouldn't have learned about in my daily life. Imhotep has helped improve my grades in all of my school subjects, especially math and science. This year in grade nine I was on an IPP for math and, with Imhotep's help and encouragement, I was able to finally get off of IPP. I am proud and happy to say that I will not be on an IPP when I start high school in the fall. I want to thank Imhotep and the mentors who believed in me and helped me to achieve my goal. Throughout being in Imhotep, I've had the opportunity to go on field trips to Dalhousie University which has helped me to gain a better idea of what I want to study when I get to university. I have decided that I want to be a Marine Biologist, Paramedic, or Pediatrician. I would really like to recommend this program to all those students in junior high. It's such a great opportunity to have and to experience. Imhotep has given me opportunities to do activities I either didn't understand or never tried before. For example, they have taught me how to make and take pictures with a pin-hole camera, make polymers like slime, and make and launch our own rockets. They've sent me to supernova camp for the last two years and I absolutely LOVED it. It was an amazing camp for me and I would love to go back this summer for my last year in Imhotep. I've been to some of the virtual school tutoring sessions and it was really fun and helpful. One of the main reasons I registered for the virtual school program was to help me get off of the IPP and I plan to continue attending these sessions in high school. I love this program and all the mentors involved. I can be myself around them, laugh and tell jokes. I call Ebenezer my bro and give him props. Thank you Imhotep for this great experience and for everything you have done for me. I'm really going to miss this program and I hope everyone else in grade 7,8 and 9 next year, and following years, have that great experience like I did. I hope I can be a junior mentor next year so that my experience with the after-school program does' t have to end. Thank you!