Teaching Scholars Programme
Growing A New Generation of Educators
World Advocacy
Learning Through Service
Building Internships That Matter
Bringing SALT to Cambodia
No Borders
Say EUREKA with URECA!
Beneficial Chemistry
Nalanda: Service-Learning In A Remote Indian Village

Dean’s Message

High quality teachers and teaching hold the key to upholding the quality of every education system. The NIE/NTU Singapore prepares all pre-service teachers for Singapore’s schools. Our vision is to prepare future-ready teachers for future ready learners. We offer two unique degree programmes. The Bachelor of Arts (Education) and the Bachelor of Science (Education) programmes give undergraduates dual competencies in pedagogical preparation and academic content. They are also the only degree programmes that serve as accreditation for those who wish to teach in Singapore.

In 2014, NIE launched the NTU-NIE Teaching Scholars Programme (TSP). This prestigious scholarship is meant for outstanding individuals who have a strong passion to teach and a calling to be professional leaders in education. TSP augments the 4-year Bachelor of Arts (Education) / Bachelor of Science (Education) programme, which underwent an extensive enhancement in 2015.

Together with the BA(Ed)/BSc(Ed) programme, TSP includes an exciting multi-disciplinary curriculum, and offers in-depth content specialisation and opportunities for cutting-edge research. It features leadership programmes, internship placements and overseas learning opportunities, such as semester exchange, international practicum and conference presentation that promise to broaden our students’ perspectives to enable them to be leaders of educational change.

This supplement is a curation of articles from different NIE publications to give you insights into the TSP and degree programmes, allowing you to get to know some of the people at the heart of the programme: our staff and students. Help us to build the future of our nation today. Join us and be part of our TSP fraternity!
TEACHING SCHOLARS PROGRAMME

By Office of Teacher Education

The NTU-NIE Teaching Scholars Programme (TSP) garners an overwhelming response for applications each year as it presents an enriching journey in education that especially caters to aspiring individuals who believe that they have a passion and calling; not only to teach but to be a leader in the field of education.

MORE THAN A SCHOLARSHIP

As one of NTU’s Premier Scholars Programmes, TSP is more than a scholarship. TSP features a carefully designed curriculum that comprises a multi-disciplinary approach to hone one’s knowledge and skills set to be a professional leader in education. Features of TSP include:

- In-depth content specialisation;
- Personal guidance by top faculty members;
- Overseas learning opportunities;
- Seminars by distinguished professors, Nobel laureates, government leaders and industry luminaries;
- Leadership programmes; and
- A wide array of electives

INNOVATING TOWARDS GREATER HEIGHTS

We believe that TSP scholars will become innovative educators. So we have customised opportunities for a conducive learning environment that enhances their leadership, academic and research capabilities.

EMBARK ON A GLOBAL LEARNING JOURNEY

TSP scholars will also have ample opportunities and support to expand their horizons through different overseas learning experience. These include International Practicum, Overseas Semester Exchange, and the Service and Leadership Training Programme.

BE EMPOWERED TO TRANSFORM LIVES POSITIVELY

TSP scholars will be equipped with the unique knowledge, skill sets and experience to be educators who are empowered; to inspire and change the lives of younger generations. They will be able to transform lives positively by guiding a generation of students with the right values and knowledge to be effective contributors to society.

Source: NIE News March 2016, No. 95, Pg. 3.
GROWING A NEW GENERATION OF EDUCATORS

By Public, International and Alumni Relations

The NIE-NTU Teaching Scholars Programme (TSP) successfully launched last year with the aim of answering the call to develop new education leaders with the passion and aspiration to inspire and nurture new generations of students. Amongst the second batch of student-teachers who are ready to make an impact are Mr Aaron Pang, Ms Dilyys Han and Ms Amanda Chin. They share their insights on why the TSP is the perfect fit for their career aspirations as educators...

MS AMANDA CHIN

A personal mission of making a difference to one child resonates strongly with Amanda. As a student, she was touched by her teachers who took time off their busy schedules to care for her as an individual. “Their smallest actions made a large impact on me. Being able to impact and influence young minds positively by caring for them and bringing them hope gives impetus to my decision to teach,” she related.

To her, the TSP is an excellent platform for educators to learn new skills so as to prepare for the ever changing challenges in the education landscape. “It not only provides constant mentorship and practise in executing innovative pedagogies, but its resource-rich syllabus also promises exposure to the education system beyond Singapore. The rich experiences gained from curriculum studies and weeks of classroom practice will lay the groundwork for me to deliver better lessons. After all, teachers learn best on the job,” she quipped.

When asked about her plans for the future, Amanda sees herself as a confident English Literature teacher imparting knowledge to her students using the right pedagogical skills and mental preparation. “I am sure that my four years in the programme will give me guidance to improve myself as an educator and mould me into a more patient, selfless and caring individual.”
MS DILYS HAN

While waiting for her GCE ‘A’ Levels results, Dilys interned at a bank and also gave tuition at the same time. Admittedly, she was focused on a career path in the corporate world but it turned out otherwise. “When I was giving tuition, I saw how powerful education was. My students didn’t just improve in terms of grade, but their characters changed for the better too. It was not just about excelling academically but also to help them realise their hidden potential and build on their talents,” she said.

The TSP certainly aligns with her philosophy, as one of its objectives is to nurture a new generation of educators who are creators of knowledge and shapers of character. Dilys believes that the programme will allow her to learn more about educational pedagogies while focusing on her core subject. “Learning about two completely different disciplines will potentially help to open up my mind to more tracks of thinking, to help me view issues from more perspectives, and gain greater insights in them. To me, these are the essential qualities required in order to become a quality educator.”

Although her journey has just begun, she is excited about the prospects offered by TSP. “It is extremely exhilarating. I am sure that the programme will open up my mind to more perspectives and to understand education even further. These will help to make me a quality educator in future.”

MR AARON PANG

When Aaron found out about the TSP, he signed up without a moment’s hesitation. Since a young age, he had always wanted to be a teacher and described enrolling into TSP as a dream come true. “I want to inspire and impact the lives that I come into contact with. Teaching students is one thing, but to be able to inspire, care and engineer success for them is another. This is the one factor that made me decide to go into teaching,” he said.

Although it is early days into the programme, Aaron is confident that it will offer him many learning opportunities to equip him with the necessary skills and align him with his career aspirations. “I really hope to enjoy this programme and make the best out of the opportunities presented so that I am better prepared for the challenges ahead,” he said. He particularly looks forward to enjoying the overseas practicum, where he would be given greater exposure to different cultures for a rich and fulfilling experience.
It was an experience like no other for seven NTU-NIE Teaching Scholars Programme students from the year two and year three classes. Group members, Mr Roysmond Sim, Mr Daniel Chow, Ms Anastasia Low, Ms Isabelle Chung, Ms Lee Xin Er, Mr Goh Xin Fang and Ms Amanda Chin attended the 7th University Scholars Leadership Symposium (USLS) 2016 held from 1 to 7 August 2016 in Hanoi for the first time.

This year’s theme, “Humanitarian Affairs: "Inspiring individuals, Transforming communities”, featured a range of inspiring talks by experts from several humanitarian specialisations. A memorable aspect was the Learning Journeys on the third day. Delegates experienced first-hand, the different areas of humanitarian work.

Roysmond visited the Qua Cam Leprosy Hospital to interact with patients through musical performances. He said that the experience was a deeply moving one because of their sincerity and openness. Xin Er and Xin Fang visited the Hoa Binh province to understand sustainable farming in the villages. They planted trees and repaired the village walkways. Xin Er shared: “Transferring soil from the river to build a walkway was very tiring but very meaningful. It was a memorable experience to help the villagers in a tangible way. I also had the opportunity to experience the local way of life.”

Anastasia and Isabelle joined a team from the UNESCO “Education for all” programme in Vietnam and distributed donated books to students at a local elementary school. “The time spent interacting and reading with the children reaffirmed my decision to become an educator,” Anastasia adds, “It reminded me of what the speaker Mr David Begbie, the founder of Crossroads mentioned that ‘education is not the answer to everything but it’s the love behind it that changes lives’. I hope to be one who transforms lives through love.”

The group also met over 800 delegates from 69 different countries. They cherished the conversations with them and recalled having breakfast with a Kenyan youth who came from a tribe of runners and his undies were representing Kenya in the Rio Olympics!

For Isabelle, a particular speaker made the biggest impact, “The various speakers were exceptional. Especially one on ‘Child Saver’ by Ms Geraldine Cox, President of Sunrise Cambodia an orphanage in Kandal. She shared heart-wrenching stories of her personal encounters and challenges with the children. Her experiences spoke volumes about the importance of courage, sacrifice and commitment especially in service for others,” she added.

This experience has left an indelible mark on their worldview about humanitarian affairs and further developing their passion for servant leadership. They hope that more NIE student teachers in the degree programme would take this opportunity to join the USLS to deepen their sense of purpose to becoming a full-fledged teaching professional.
LEARNING THROUGH SERVICE

Service-learning is an effective educational approach that provides valuable first-hand pedagogical skills to student teachers by engaging them in community services. The knowledge and experience gained through service-learning enables them to inspire future students to be compassionate and participate in community service. The experience also strengthens their characters and teaches them humility and independence.

The NIE Service-Learning Club (NIE SLC) organised various programmes in 2017 for student teachers to participate in service-learning. These include two major local events, Bandhudera and Art Facilitation @ St Luke’s Hospital, as well as overseas service-learning trips to Nalanda and Sikkim, India and ‘Catwalk’ - a tiger conservation effort in Malaysia. Student teachers can look forward to more service-learning opportunities as the club expands its partnerships with organisations to reach out to other communities.

Bandhudera

Bandhudera, which means friends in Bengali, is a social event jointly organised by NIE SLC and HealthServe for migrant workers and student teachers to interact through games and activities that promote cross-cultural sharing, and to learn about each other’s dreams and aspirations. HealthServe is a non-profit organisation dedicated to the wellbeing of migrant workers in Singapore. In the second run of Bandhudera in 2017, 40 migrant workers and student teachers came together for an enriching time of games and interactions.

Art Facilitation @ St Luke’s Hospital

Held on the last Saturday of each month, this art-making event at St Luke’s Hospital is part of a long-term initiative by NIE SLC. Ten student teachers paired up with secondary school students to teach patients how to make stress balls out of socks. Participants were given a volunteer orientation session by the hospital on the guidelines and etiquette in engaging the patients. Our student teachers had a fun and rewarding time facilitating the art session, and the patients enjoyed making their own stress balls, from stuffing cotton wool into the socks to decorating them with colourful felt pieces.
BUILDING INTERNSHIPS THAT MATTER

By Office of Teacher Education

On 11 May 2015, the Office of Teacher Education officially launched BUILD, as a three academic unit elective for students within the Teaching Scholars Programme (TSP).

Traditionally, student teachers are not exposed to organisational culture outside the school environment. Building University Interns for Leadership Development (BUILD) is a five-week industrial attachment programme that bridges this gap.

Differing from most internships, the BUILD programme encompasses a project element that will value-add to the functions of the host organisation. Projects could involve any innovative and practical solutions that address management issues and leverage on corporate opportunities. These projects could take on but are not limited to an education slant.

One of our TSP students, Ms Nurazliah Mohamed Shukor, was attached to the National Heritage Board. For her, BUILD helped her experience things beyond the school syllabus and outside the classroom. Her project involved conceptualising activities for a heritage walk targeted at primary school students and their families to explore buildings and structures that mark major milestones in Singapore’s history. Using her theoretical knowledge, she is able to come up with teachable moments while infusing the trails’ activities with values explored in the Character and Citizenship Education syllabus.

Mr Roysmond Sim was posted to the Higher Education Division Policy Section 3 at the Ministry of Education (MOE) Headquarters. He was involved in outreach efforts to gather opinions from various stakeholders regarding the New Science Centre forecasted to be built by 2020. Roysmond was given the opportunity to put his finger on the pulse and conduct focus group discussions with different public bodies. He feels that working with MOE has given him greater insight on how policies are planned and executed with various considerations taken into account.

BUILD also encourages students to self-source their internship projects. This paid off for Mr Lishanth Thangavelu and Ms Charissa Ong. They were placed as camp instructors and were required to conduct outdoor activities for primary and secondary students. Additionally, Charissa’s stint with Camp Challenge also gave her the chance to travel overseas to Gopeng, Malaysia. During her time there, she was involved in a programme targeted at a group of at-risk secondary school students. The programme also included an overseas community involvement component where the students assisted with the construction and repair of the houses owned by the indigenous Orang Asli community.

Dr Paul Grahame Doyle, from the English Language Institute of Singapore, had this to say about the three interns: “We have all recognised that our NIE ‘BUILDers’ are delightful and conscientious students of subject literacy, and our broader work in schools. They have contributed valuable insights to discussions and participated fully in the Institute’s activities.”

BUILD runs during the vacation period after semester two of each academic year. We look forward to next year’s edition!
The Service and Leadership Training (SALT) programme stems from NIE’s goal to provide its student teachers with a unique opportunity for both personal development and international exposure in interdisciplinary training through overseas immersion experiences. Participants get to explore different facets of leadership by learning to conceptualise, plan and execute community projects, and to work independently and in teams to create meaningful learning experiences.

For the first time, Phnom Penh, Cambodia, was the chosen destination for this annual experiential programme. Ten student teachers across NIE’s Bachelor Degree, Postgraduate Diploma in Education (PDGE) and Diploma programmes took part in the trip led by Associate Professor Chow Jia Yi, Associate Dean for Programme & Student Development, with support from Assistant Professor Leong Wei Shin, Assistant Dean for Degree and Student Life. The trip was organised in collaboration with NIE’s overseas community service partner, Sangkhoem Khmer (SKK), a non-profit organisation devoted to improving living standards among poor communities in Cambodia through the building of human capital.

The trip’s co-student leaders, Ms Ding Soo Juan, BA (Ed) Year 2, and Ms Eunice Leong, BSc (Ed) Year 2, led their teammates in the project planning and pre-trip coordination, which included preparing lesson plans, organising donation drives and procuring teaching materials. For the first time, participants were also tasked to design a Mobile Trail learning activity that would expose them to Cambodia’s rich culture and heritage even before the trip. The planning and design of the mobile platform would equip student teachers with experience in the use of such technologies and pedagogical approaches in designing learning for their own students in the future.

At the SKK learning centre, the student teachers conducted classroom lessons and interacted with the children through basketball, frisbee and other games. English lessons, taught through a mix of teaching aids, song & dance, and art & craft, were a hit with the children. The older youths were inspired to achieve bigger dreams through one-on-one engagement with our student teachers.

Mr Ler Jun Yi, PDGE (Physical Education) Year 1, felt the experience has better prepared him as a teacher. “Seeing how teaching further enforces values made me more confident about giving my all to this noble profession,” he said. Daily reflections facilitated by Associate Professor Chow helped the participants to think about what they’ve learned. Ms Eunice Leong commented, “The sessions helped me consolidate my thoughts and learning points for the day.”

The next edition of SALT Cambodia will be in January 2019 and there is even the possibility of a new SALT project in Siem Reap!
For the second edition of Service and Leadership Training (SALT), a total of 44 Degree student teachers (eight were student facilitators) and six staff from the Office of Teacher Education (OTE) and Early Childhood and Special Needs Education (ECSE) travelled to Phong Thanh Commune (village), Vietnam from 2 to 8 January 2017 to collaborate with students and teachers in the local community.

One highlight of the project involves OTE collaborating with IN-Learning to create SALT Mobile Learning Trail where student teachers experienced self-directed and location-based learning through the use of a scavenger hunt activity based on an app (Kikakaku) on their mobile devices. Through this platform, the student teachers were challenged to complete tasks within Ho Chi Minh City itself in their groups. This experience provided opportunities for the student teachers to work with each other under stressful conditions and also to know the city as well as the local residents better.

Mr Dominic Koh, a Bachelor of Science (Education) Year One student teacher, shared that it was a fun activity for them to explore the city and interact with the locals as they had the chance to experience some aspects of the local life when they were moving about various places (i.e., checkpoints).

At the commune, the student teachers worked closely with five local schools – Kindergarten, Primary School A, B and C and Secondary School. Basic English lessons were conducted with the local students by using a variety of pedagogical approaches and tools. For instance, the use of visual aids and musical instruments were featured prominently throughout the many lessons conducted. Importantly, the English lesson provided a platform to inspire and ignite a love for learning among the children so that they may see education as an important channel for personal growth.

Ms Chau Pearlwe, a Bachelor of Science (Education) Year One student teacher, shared her experience on leadership development: “Through the training, I realised that leadership comes in many different forms and a leader is not necessarily only the person who stands in front of the class and leads the class. Even when taking a more back stage role, we can exhibit leadership by continuously reflecting on what have been done
or is going to happen, and point out issues or give suggestions whenever necessary.”

As a participant playing the role of a student facilitator, Mr Ong Kang Sheng, Bachelor of Science (Education) Year 2 student teacher, shared his experience: “Personally, returning for the second time allowed me to witness the profound impact we have made from our first trip in 2016. The warm reception we received from the students upon our arrival and their eagerness to share what they have learnt from us previously was a testament to this. The students still kept the notes from our previous visit.”

But it is not all work and no play. As part of the overall SALT experience, the student teachers visited local homes and celebrated the rich cultural exchange with our Vietnamese friends. The student teachers also visited a famous landmark in Vietnam, the Chu Chi Tunnels where they learnt more about the Vietnam War and its impact on the country.

Dr Trivina Kang, Assistant Dean for Teacher Leadership, shared her experience on SALT, “SALT 2017 was an extremely meaningful way for me to start the New Year. During this week, I saw NIE undergraduates demonstrate the true joy of learning and sharing. Despite encountering basic living conditions and classrooms with few resources, they embraced the entire experience with great positivity and gave of their best to the students they taught. They supported and cheered each other on, always willing to take on feedback as they took turns to lead and follow. I’m sure they will remember this experience of personal growth for years to come, just as I will!”

Although the engagement lasted only for a week, our student teachers have certainly left a deep imprint on the lives of the local students. In addition, the student teachers have learnt to be adaptable in different situations and see the value in such service learning initiatives. We look forward to the next edition of SALT!
Since joining Undergraduate Research Experience on Campus (URECA) two year ago, undergraduates from the National Institute of Education have benefitted from the opportunities and exposure of Nanyang Technological University’s (NTU) URECA Programme.

On 24 March 2017, NIE student teachers showcased their work at the ‘Discover URECA @ NTU Poster Exhibition and Competition’. Here, apart from displaying their posters, they shared and presented their research findings to the faculty as well as fellow undergraduates. Nur Ardillah Binti Zulkifli, a Bachelor of Education Teaching Scholar Programme (TSP) student teacher from the July 2015 intake won second prize in the Humanities Category. Her research project entitled ‘Malay literary works of female writers in Singapore and Malaysia as educational text’ was among the 22 posters that competed for prizes in the Humanities Category.

Nur Ardillah shared that URECA gave her “the opportunity to delve into a topic and explore issues” that she had “immense passion and interest in”. With the guidance of her supervisor who has expertise in the field of study, she felt “more driven to acquire knowledge and research skills”.

Her URECA journey has helped her develop a broader perspective of her topic of interest and she has gained more awareness in the process. Although challenging, with the help of her supervisor Dr Sa’eda Bte Buang, Nur Ardillah was able to tailor her project to work with the available resources and within the timeframe.

In addition, the poster by Chng Huiru, Denise, a Bachelor of Education Teaching Scholar Programme (TSP) undergraduate impressed the crowd with her work entitled ‘Examining the teaching of vocabulary: Teachers’ implementation of the STELLAR Programme’. A project that was supervised by Dr Loh Kok Kiang Jason, Denise’s project received the highest number of popularity votes in the Humanities category.

Reflecting on her journey, Denise said, “URECA has been a long and arduous, yet thoroughly enriching and enjoyable journey for me. The programme offered me many opportunities to gain exposure to research, hone these skills and interact with passionate scholars in the same academic field.”

NIE undergraduates have indeed benefitted from the opportunities and exposure of NTU’s URECA Programme. We are very pleased to announce that this year, 78 NIE students have been invited to participate in Academic Year 2017/2018’s URECA.
Arsenic is naturally found in groundwater of many countries. Various anthropogenic activities have also contributed to elevated concentration of this element in the environment. Ingestion of arsenic-containing water will lead to health problems, for example, skin disorders, cardiovascular diseases, and cancers. Around 140 million populations over 70 countries are affected by arsenic poisoning of drinking water.

Inspired by chemistry professors from the Natural Sciences and Science Education (NSSE) Academic Group, two student teachers, Ms Tan Ka Shin and Mr Liu Weilee had been trying to solve the arsenic-tainted problem in a sustainable way. Teaming up with students from Singapore Polytechnic, they have successfully developed a simple yet highly efficient remediation kit using readily available household materials, such as iron rust, cotton and recycled plastic bottles. The low-cost kit may potentially increase the accessibility of clean water for households in remote regions in developing countries such as Bangladesh, which face acute arsenic poisoning. The team has received a commendation award in Green Wave Environmental Care Competition 2014 organized by SembCorp Marine Ltd. This annual nation-wide competition aims to promote participation of the public, particularly the students, in caring, protecting, maintaining and positively utilising the environment.

Ka Shin and Weilee, who are both in their final year in the Bachelor of Science (Education) programme, have indeed fully seized the opportunity to apply theoretical and practical knowledge learnt during their classes to synthesise products that are beneficial to society. Kudos to them and we certainly hope that they will share their journey in sustainable science with their students in their schools.

Clockwise (from above): Ms Tan Ka Shin (left) and Mr Liu Weilee (right) with their commendation award; Mr Liu Weilee (right) receiving the award from the Guest-of-Honour, Ms Indranee Rajah, Senior Minister of State, Ministry of Law and Ministry of Education; Mr Liu Weilee and Ms Tan Ka Shin explaining their work to Ms Indranee Rajah after the award ceremony.

Source: NIE News March 2015, No. 91, Pg. 18.
NALANDA: SERVICE-LEARNING IN A REMOTE INDIAN VILLAGE

In December 2017, 16 inspired NIE student teachers embarked on a two-week service learning trip to Nalanda, a village deep in the valleys of Namdapah in northern India.

This was our second trip to serve the Chakma community, an ethnic group living in Namdapah for over 50 years after fleeing from Bangladesh in the 1960s. There was tension and conflicts with rival tribes at first, but these had reduced in recent years, and the Chakma community hoped to eventually settle down peacefully in the village.

We arrived at Nalanda to a warm reception by the villagers. We took on a few classes at the village school and were heartened to find the students eagerly following our lessons. The local teachers were on-hand to help us especially when some of the terms were lost in translation. The villagers opened their homes to us for house visits and shared unreservedly on the countless questions we had for them.

As a team, we grew stronger each day. We conducted daily reflection to improve our teaching and engagement with the students and forged strong bonds with the community. When the time came for us to leave, many of us were reluctant to go.

We are extremely grateful for the opportunity to return and serve the Chakma community. We are also thankful of HelpTourism, the partner organisation who assisted our team throughout the trip.

Our team unanimously agreed that the Nalanda service-learning was a truly meaningful and educational Overseas Service-Learning Trip. It taught us things we could not have learnt in the classroom and opened our eyes to a world beyond our own. It was a life-changing experience we will never forget.

By Ong Qi Ting,
2nd year student teacher
KEEPPING THE CHEMISTRY
ALIVE IN PHYSICS

NIE’s respected authority on Plasma Physics, Associate Professor Rajdeep Singh Rawat, talks about his passion for experimental sciences and how this fuelled a career in Physics that has spanned from India to Malaysia and Singapore.

It seems unimaginable that Associate Professor Rajdeep Singh Rawat, who heads NIE's Natural Sciences and Science Education Academic Group, did not perform very well in Physics as a young student. After all, the distinguished professor is the first Asian to be appointed President of the International Physics Olympiad. He is also President of the Institute of Physics Singapore and President of the Asian African Association for Plasma Training.

"But you see, I was intrigued with the subject," Associate Professor Rajdeep began. "Many of my classmates went into medicine and engineering, but I wanted to study Physics at one of the best colleges in Delhi. The selection criteria were very tough, so I fought hard to be amongst the crème de la crème. That's how I ended up doing my honours in Physics."

As a young undergraduate, Associate Professor Rajdeep was active in physics societies. "Once, we invited this prominent plasma physicist, Professor P. I. John, to deliver a talk. He spoke about fusion and nuclear physics and how this would become the future of energy solutions for mankind. That got me very excited, and I made up my mind to pursue experimental plasma physics that very instant."

Associate Professor Rajdeep went on to complete his Masters degree in plasma and astrophysics, and obtained a national scholarship for PhD. To his great disappointment, the university could not support a PhD in experimental plasma physics at it lacked the resources. "As we say in India, it's all written in the stars. Some 18 months after working on theoretical investigations, I got wind about an experimental plasma physics programme started by a Professor Lee Sing from Universiti Malaya. I knew I had to pack my bags and leave for Malaysia."

The programme required Associate Professor Rajdeep and his cohorts to come up with a prototype device in one month. "Prof Lee was a true mentor, and the prototype was assembled faster than expected. We even had chance to help with some of Prof Lee's experiments and published two papers!"
"When I got back to Delhi, I completed my PhD on that system and got Prof Lee to be my PhD examiner. I also pioneered a process to use that device for materials modification and deposition," he added.

Things got busier after Associate Professor Rajdeep became a university lecturer and he lost contact with his supervisor. "Not everyone had email at the time and it was sheer coincidence that I managed to reconnect with Prof Lee. By then, he had moved from Universiti Malaya to the former NIE campus at Bukit Timah, where he had established a plasma physics group as the first department head for natural sciences! Once again, Prof Lee got me to pack my bags and head out to Singapore. The rest, as you know, is history."

Even after all these years, Physics has continued to captivate Associate Professor Rajdeep's interest. "The language of Physics is Mathematics, so first, you've got to be good at Maths. Secondly, it is a very conceptual subject. That, I believe, is the main challenge for most Physics students," he observed.

These days, however, education technologies have improved by leaps and bounds. "As teachers, we can make difficult concepts come alive through videos, animation and demonstrations. Gone are the days of OHP transparencies and blackboards! In Singapore and NIE, we're very lucky to have the resources to make teaching more interesting and interactive for our students."

Associate Professor Rajdeep encourages all Physics teachers to make use of modern resources to improve both the teaching and learning experience. "In the old days, students would complain that Physics was very "dry" because theory and practical were taught separately. Now, we're able to bring online learning, mobile applications, as well as virtual and augmented reality into the classroom. This is definitely an area I'm most excited about, as we transform into a future-ready NIE."

Sharing from experience, Associate Professor Rajdeep cautions: "To be a good Physics teacher, one cannot simply depend on head knowledge or education technology. Successful teachers must learn to be good communicators. They must be interested to pass on their knowledge and be able to make use of pedagogies to serve their purpose. Not everyone is born a great teacher."

At this juncture, we had to ask the physics professor if he considered himself a born teacher. "If I wasn't a teacher, I would've made a pretty good badminton player!" he laughed.
NIE is home to a number of active research mathematicians from the Mathematics and Mathematics Education Academic Group (MME). They are leaders in their field of expertise and often collaborate with notable academics who visit the institute to exchange ideas on outstanding research. This article puts the spotlight on MME Associate Professor Dong Fengming, Associate Professor Zhao Dongsheng, Assistant Professor Ho Weng Kin and Assistant Professor Toh Pee Choon. Thanks to their grit and passion, the Institute flourishes in the mathematical world stage and staff and students have ample opportunities to learn from them and world-renowned Professors on many topics of interest.

A SHAMEFUL CONJECTURE
An online search on “Alan Sokal” would lead to a mathematical physicist who published a paper (1996) in the post-modern academic journal “Social Text” that was a major talking point in the “science wars” framed as for or against Truth and Objective Reality. Normally busy with important research, Prof Sokal is a mathematics Professor at University College London and Professor of physics at New York University. He sometimes visits colleagues around the world like MME Associate Professor Dong Fengming, who is already a world authority on Chromatic Polynomials.

Assoc Prof Dong has collaborated with many notable mathematicians like Professor Carsten Thomassen, Professor Bill Jackson, Professor Charles Little, Professor Wang Yi, Professor Geoff Whittle, Professor Graham Farr and Professor Gordon Royle; leaders in their areas of mathematics. In fact, Prof Royle adds in his personal blog: “This is the story of the shameful conjecture, which started with Dominic Welsh, was almost solved by Paul Seymour, and eventually resolved by my friend, Dong Fengming from Nanyang in Singapore... For a graph theorist, it is a little embarrassing to define a parameter applicable to all graphs, with the complete graph trivially at one extreme, and then be unable to show that the empty graph is the other extreme. In fact, more than just embarrassing; perhaps, even positively shameful. Thus the shameful conjecture was christened...”

1 Prof Bruce Berndt (fifth from the left), seven of his mathematiccal “children” and three mathematical “grandchildren” (Asst Prof Toh Pee Choon is 4th from the left) who participated in the workshop at NIE in 2014

2 Assoc Prof Dong Fengming with Prof Dominic Welsh in Oxford (2008) — brolly, good weather!

3 Prof Carsten Thomassen, editor-in-chief of Journal of Graph Theory, speaking in NIE (2009)
EXPLORING DOMAINS

Neither supporting an anti-alcoholism propaganda nor passing judgment on a man’s sobriety, was Cambridge University Professor Peter Tennant Johnstone’s famous one-paged paper (1981) titled “Scott is not always sober”. It gave an elegant counter-example that disproves that every directed complete partial order admits a sober Scott topology. The Scott topology is purportedly the most important non-Hausdorff topological space invented by Carnegie Mellon University Professor Dana Stewart Scott. It gives a denotational semantics for functional programming languages and the study of topological structures on partially ordered sets (and its applications) is broadly known as domain theory.

Respectively related are MME’s Associate Professor Zhao Dongsheng and Assistant Professor Ho Weng Kin. Prof Zhao, a Ph.D. student of Prof Johnstone while Prof Scott was (technically) Asst Prof Ho’s great-grand PhD supervisor. Today, Prof Zhao is well-known for his work on semi-continuous lattices and Asst Prof Ho, known for his operational domain theory and topology of functional programming languages.

INFINITY RELATED

Some may recall a recent movie titled as “The Man Who Knew Infinity” that chronicles the mathematics genius S. Ramanujan who left India for England in 1914 to learn from and collaborate with the renowned number theorist G. H. Hardy. The famed thick notebooks by Ramanujan were thought to take a lifetime or two to understand. The monumental task of editing the notebooks took University of Illinois Professor Bruce C. Berndt not two lifetimes but two decades instead. Though virtually all of Ramanujan’s results were proven, an active community still flourishes to research in areas influenced by him.

MME Assistant Professor Toh Pee Choon (pictured, below) is one of them. You could also say that Asst Prof Toh is actually the mathematical “grandson” of Prof Berndt since he was a PhD student of NUS Professor Chan Heng Huat who was once Prof Berndt’s PhD student. In March 2014, Asst Prof Toh organised an international workshop on Number Theory, Partitions, q-series and Rogers-Ramanujan Identities at NIE. The first ever workshop held in Singapore that focused on areas in mathematics influenced by Mr Ramanujan. Prof Berndt was the keynote speaker of the workshop and many of his former PhD students were invited speakers as well. The event attracted participants from Australia, China, Indonesia, New Zealand, South Korea, Taiwan, UAE and USA in addition to participants from NTU, NUS and SUTD.

THE HO-ZHAO PROBLEM

The Ho-Zhao team was formed when Asst Prof Ho was reading his Masters at NIE in 2002 under Prof Zhao. The duo have been most noted for their contributions towards the understanding of Scott-closed set lattices, and hence a related open problem widely recognised as the “Ho-Zhao Problem”. It attracted many failed attempts from the domain theory community and was finally solved last year by the collaborative efforts of Asst Prof Ho, Prof Jung and Professor Xi Xiaoyong who made crucial use of the aforementioned Prof Johnstone’s famous counter-example. The Ho-Zhao domain theory team attracted many world-renowned domain-theorists to NIE such as, Professor Achim Jung, University of Birmingham; Professor Klaus Keimel, Technische Universität Darmstadt; Professor Thomas Amberee, University of Nottingham; Prof Xi Xiaoyong, Jiangsu Normal University; Prof Xu Luoshan, Yangzhou University; the late Professor Wang Guojun, Shaanxi Normal University; and of course, Prof Johnstone as well.

1

Assoc Prof Zhao Dongsheng with Prof Achim Jung in NIE, 2015

2

Asst Prof Ho Weng Kin with Dr Thomas Anberree, 2013

Source: NIE News September 2016, No. 97, Pg. 24-25.
KEEPING THE PHYSICS ALIVE

By Public, International and Alumni Relations

One person who can attest to Professor Xu Shuyan’s passion for Physics and how he has imparted this to his students (right) is Mr Sean Lee Xu En. The former Bachelor of Science (Education) student teacher reminisces that he is grateful to have Prof Xu as his supervisor on his final year project.

“I researched on the topic of using laser ablation to improve the efficiency of a solar cell. Thanks to Prof Xu, I was able to analyse the data to its full extent and this helped me greatly. Having state-of-the-art equipment in his laboratory is one thing. But being able to scale and translate complex equipment usage that applies to my project is what made my learning and research much more fruitful,” he quipped.

Indeed it did. At the Teachers' Investiture Ceremony July 2015, Sean received the IPS Book Prize for having the best performance in Physics in the Bachelor of Science programme. To top it off, he was also awarded the Lee Kuan Yew Gold Medal for attaining First Class Honours.

“I am grateful to Prof Xu for being my mentor. He has impeccable knowledge which makes his teachings very enjoyable. He is able to show the big concept and break down complicated concepts into easy-to-understand parts. I am very grateful for his leadership and honoured to have been under his tutelage,” he said.

On his future plans as an educator, Sean hopes to make the same impact that his mentor has had on him. “I hope to inspire my students just like how Prof Xu has inspired me. I want to show my students how Science can be both fun and enriching. In the future, I hope to be able to return NIE and impact future teachers as well,” he shared.

Source: NIE News December 2015, No. 94, Pg. 10-11.
Nature or “the wild” lends itself as the best classroom for the study of Biology. While topics like diversity and ecology may be more traditionally taught in a field setting, biochemistry, physiology, and even molecular evolution may also draw inspiration in a field classroom. A teacher who utilises field trips as part of learning Biology may elicit a wide array of learning outcomes, from a superficial-level appreciation, discovery and knowledge acquisition, to higher-order inquiry through observation, analysis, understanding and inspiration.

In NIE, field trips are used in the teaching of Biology. We have practitioners who are comfortable teaching out in the field and who hone their craft through constant observation, silent contemplation and patiently waiting on Nature. Their solid understanding of the field environment helps them deliver inspiring lessons to student teachers.

Being well prepared is one of the main reasons for a successful field trip. At NIE, site recce are conducted with a proper risk assessment management plan with alternatives in case of inclement weather, followed by safety briefings. This bolsters confidence in dealing with emergencies. Confidence in the field is something that most student teachers are not trained in, and hence, like the teaching practicum, exposure and practice are essential in building confidence in conducting field studies. This also means not shying away from moderate to higher risk activities, but rather reducing the risk by preparing a logical and feasible management plan.

Our student teachers are often reminded to keep an open mind to always expect that nature will do its own thing and not conform to expectations. This attitude teaches them to respect nature. It also teaches them to be alert towards the many other surprises in store if they went without an expectation.

The hushed amazement of student teachers seeing a living coral reef directly underneath them while safely floating on the sea surface, their delighted squeals upon spotting a camouflaged octopus hunting prey on the exposed intertidal shore at night for the first time reinforces the tutors’ belief that harnessing the natural wonder of the field environment helps deliver more than 80% of a lesson.

“There was a flipped classroom component in the trip, where we got to see the ecosystems before actually learning about them. I could implement this flipped classroom strategy, by letting my students experience firsthand, before teaching them in classrooms.”
Student Teacher, 2015.

“Seeing the habitats in real life... made the topic of species adaptations more understandable. I felt that there wasn’t exactly a need to memorise... anymore, because they started being more logical.”

Student Teacher, 2016.
The Humanities and Social Studies Education (HSSE) Academic Group (AG) has established inquiry-based signature disciplinary programmes to help pre- and in-service teachers and students “think like authentic history and geography practitioners.” Under this purview, two experiential learning labs, The Historian’s Lab (HL) and The Sustainability Learning Lab (SLL) are currently being developed in partnership with secondary schools in Singapore.

Associate Professor Mark Baildon, Head of the HSSE AG, said these labs “will help students to know what it means to critically think and work with geographic data and primary sources in history to develop their own conclusions.”

The HL provides teachers and students ample opportunities to actively engage in the craft of history, and develop deeper awareness of how historical knowledge is constructed. The lab situates the learning of history in an immersive and experiential way. The discipline focused and inquiry-based learning utilises a range of pedagogical tools and learning strategies.

In particular, the HL utilises card-based games to support classroom instruction in exciting and interactive ways, video cases of real historians to support classroom learning, and inquiry-based approaches to investigate historical events and develop interpretations.

The HL paves the pathway to actual encounters with real historians through interactions and digital media platforms, hence, allowing teachers and students to learn the ways historians engage in their fascinating work of interpreting and reconstructing the past.

Based on his students’ learning experience on adapting the HL, Leonard Wan, the partner school teacher from Clementi Town Secondary school, said “We do see an increased level of thought and a depth of thought in approaching certain historical topics.”

The SLL represents innovative virtual and physical spaces that provide resources to support curriculum topics related to sustainability and urban liveability.

The virtual lab is a user-friendly, informative website that hosts classroom activities, videos, and lesson plans. This lab acts as a geospatial data portal that connects to each relevant topic. It provides interactive, map-able, data such as land use, as well as real-time meteorologic and water quality data transmitted from the outdoor physical lab space. The first of these physical lab spaces is located at the Jurong Eco-Garden (JEG), with three more locations to be established in the near future. In addition to transmitting the environmental data to the virtual lab, the JEG provides field opportunities for classes to explore water quality, water sensitive urban design and greenspace benefits.

The SLL also offers students the opportunity to engage in the application of emerging geospatial technologies such as drones with georeferencing aerial digital cameras and thermal sensors, to three dimensionally map terrain, land use, and surface thermal signatures. These learning techniques insitll a sense of student curiosity, and provide an integrated learning approach to the collection and application of geospatial data.

Associate Professor Kim Irvine hopes that the SLL will enhance student appreciation for the interaction between human and physical systems, and provide them with the wisdom and insight to undertake informed stewardship of our planet as a whole and our little red dot in particular.
Students get to

Shakespeare and Much More

We offer a wide range of literature courses, focused on Shakespeare, Victorian Literature, World and Singapore Literatures as well as popular culture. Students also get the opportunity to immerse themselves in the study of Literature through performance and creative writing. Students regularly get to interact with invited speakers who share their craft in talks and workshops. Previously featured writers include Jean Tay (Boom, 2009, and Everything but

Literary Learning Journeys

How does place connect to poetry? What does poetry mean in particular spaces and places? Our literature curriculum emphasises making connections to the world through our study of poetry and place in our place-based inquiry-driven learning journeys. Students get to watch plays, read literature and explore inspiring places as part of their learning.

“I enjoy going out and learning more about Singapore and its literature.”

World Englishes & Singapore English

What’s the difference between Standard English and Singlish? How many varieties of Englishes are there in the world? In our Singapore English and World Englishes courses, students are situated in authentic learning contexts to explore local and global language development so as to understand the sociocultural contexts in which language develop and function. Greater understanding of language development in various contexts provides students with greater understanding of how to approach language teaching in different contexts and for different purposes.

“I never knew there were so many varieties of English, and I didn’t even realise Singlish has grammar!”

Creating Authentic Products

Learning extends beyond the textbook. Students engage in creating real-world products relevant to schools, the community and the world. They create their own dictionary entries to understand the processes by which lexicographers compile dictionary entries, and contribute to our growing worldwide lexicon. Out of the classroom, Literature students explore the latest research and practice to contribute to an annual publication, En’lighten, for literature teachers. Self-directed learning and service to the community are part of authentic learning in ELL.

“I have come to appreciate the long, arduous process that lexicographers go through just to create an entry for a word.”

Source:Learning@NIE2017, Pg. 8-9.
EXPERIENCE...

The Sounds of English

How does one pronounce ‘flour’ - like ‘flah’ or like ‘flower’? Learning to transcribe words phonetically helps students read transcriptions in dictionaries and to speak well. Through games and an in-house designed mobile app, Well Said, students examine features of English pronunciation such as the rules for verb and noun inflections, the influence of derivational suffixes on word stress, and the sentence level patterns of rhythm and intonation. They learn different varieties of English: Southern British English, American English, Singapore English and Estuary English and use this knowledge to describe and understand the speech of themselves and others.

“As I will be a language teacher, I feel that good and accurate pronunciation will benefit the students as they will then be able to model after me. I’m more confident now in my pronunciation, knowing how to check up words myself.”

The Wonders of Children’s Literature

Children’s Literature has the power to intrigue and inspire. Students get to immerse themselves in classic and contemporary titles in Children’s Literature to examine how best to encourage reading and educate young minds. Students also interact with print and non-print resources, such as Augmented Reality books, and contemplate on the affordances of technology and its place in the classroom. To e-book or not to e-book?

“WOW!!! Didn’t know there are so many things to look out for in selecting books for children!”

The Art of Film

Are films merely a sequence of fleeting images? What techniques are used for effect? What makes a film good or bad? In film studies, our students get to analyse a range of film from classics and contemporary films such as The Matrix (The Wachowski Brothers, 1999), City of God (Gernando Mireles, 2002), The Lion King (Roger Allens and Rob Minkoff, 1994), Hero (Zhang Yimou, 2002), and Ilo Ilo (Anthony Chen, 2013). Students also explore the pedagogy of using film in the Literature and Language classroom to engage and to educate.

“Made me think about why films are so compelling to watch – they take us out of the ordinary...”

Source: Learning@NIE2017, Pg. 8-9.
LEARNING THROUGH STORY

Drama Pedagogy at NIE

by ASST PROF CHARLENE RAJENDRAN & ASST PROF PRUDENCE WALES
Visual and Performing Arts

Drama at NIE is being used as a vehicle to explore contemporary social and cultural issues in Singapore. This is having an impact on the way our student teachers see themselves and others in a global and fast-changing society. Much of the work they do in drama involves exploring their ideas and feelings about issues such as cultural difference, social inequity and national identity. Student teachers examine their own stories of conflict and struggle as material for drama, deriving ideas for character, plot and storyline from a combination of situations they then research on and interrogate. In unpacking their own stories, they reveal and reflect on the stories of others, developing a capacity to articulate and recognise the complex multiplicities within allegedly single cultures.

This approach to drama led to a graduation production in 2015 called Lost in Trans(Nation), attended by the NIE/NTU community and a wider audience. It generated energetic and fulfilling post-show discussions led by the student teachers, about the need to recognise identity as a construct of several elements and histories. Student teachers devised the script based on a collage of experiences they encountered and cultural frameworks they had researched on. These approaches first began in a Drama Education course, and were further developed in courses on Cultural Theory, Applied Theatre, Directing and Dramaturgy. In preparing for their Performance and Production course, student teachers were tasked with creating performance that drew from drama theory and practice, critical pedagogy, national education and 21st century skills. Drama was performed as both pedagogy and art.

“Drama has provided me with a safe platform to explore pressing issues which may be deemed controversial, but demand attention in a rapidly globalising world. The drama courses that I went through helped me to approach the issues from multiple angles, which then led to a final production, where these issues were presented to a wider audience to provoke thinking and elicit responses from members of the community.”

-Rusydiana bte. Kusni

Photo taken from the poster created for the production “Lost in Trans(Nation)”. It shows the four performers in character.

Source: Learning@NIE 2017, Pg. 15.
HARNESSING IoT FOR EDUCATION

As the world becomes increasingly connected through sensors and smart devices, a revolution known as the Internet of Things (IoT) has opened up new possibilities for teaching and learning, both pedagogically and technologically.

For example, the concept of IoT can offer tremendous potential for immersive learning experiences, allowing learners to make sense of real-time data for short experiments as well as long-term data trend analysis. This would encourage greater participation in collaborative as well as inquiry-based learning, as learners would be able to share data with one another for the identification of hidden patterns for discussion and for the proofing of hypotheses.

With the opening of the S$1.9 million IoT@NIE Learning Lab on 28 May 2018 by Second Permanent Secretary of Education, Mr Lai Chung Han, NIE educators and student teachers can now look forward to collaborative design projects as well as participate in innovative learning experience.

The laboratory is the result of a collaborative effort between the Info-communications Media Development Authority (IMDA) and NIE to provide a tech-enabled space for educators and learners to explore new ideas and experiments and to evolve teaching and learning experiences.

The IoT@NIE Learning Lab is located at NIE2-01-02, and open on weekdays from 10.30am till 12.30pm. Academics, educators and student teachers are welcome to explore and tinker at the lab.
INTERNATIONAL PRACTICUM

By Dr. Jessie Png, Office of Teacher Education

Since 2012, NIE has been providing our degree student teachers the opportunities to go overseas to do their five-week Teaching Assistantship.

Our international partnerships have expanded since then, and they now include: University of California, Santa Barbara, USA; University College Capital (UCC) and VIA University College, Denmark; Zurich University of Teacher Education (PH Zurich), Switzerland; National Taiwan Normal University, Taiwan; University of Waikato, New Zealand; University of Helsinki, Finland; and Linköping University, Sweden.

In March 2015, NIE signed a Memorandum of Agreement with Stockholm University, Sweden. Stockholm will be another place for our student teachers to go to.

Incoming International Practicum

Our local schools have been graciously giving students from our international partner-universities the opportunities to teach in their schools. To name a few, St Andrew’s Junior School, West Grove Primary School, Boon Lay Garden Primary School, Westwood Primary School, Nanyang Primary School, Corporation Primary School and Wellington Primary School; Chung Cheng High (Main) School, Yishun Town and St Andrew’s Secondary Schools were our partner schools last year and early this year.

From 2013 to early 2015, 36 international students have passed through the doors of these schools and its classrooms. These have provided unique opportunities for them to build greater depth in pedagogical approaches in different cultural and social settings.
"My greatest area of improvement was classroom management. Through this exchange, I was given the opportunity to witness the various types of classroom management strategies demonstrated by my co-operating teacher and other teachers. One of the strategies that I will use when I get back is the assignment of group leaders and assistant group leaders. Instead of having the teacher give out and collect worksheets to the students, the students can assist. This will help the teacher save a lot of time and focus on conducting a more effective lesson."

NIE SIGNS MOU WITH TWO SWEDISH UNIVERSITIES

By Office of Teacher Education

With greater emphasis on international exposure in interdisciplinary training for our student teachers, NIE is constantly looking for university partnerships for our student teachers to go to for exchange programmes and international practicum.

As part of that effort, NIE is making further in-roads to the Nordic region by penning two Memorandum of Understandings (MOU) in May 2014, with the Stockholm University (SU) and Linköping University (LiU). These two renowned universities are among the top in Scandinavia and around the world. In fact, the Nanyang Technological University (NTU) President, Professor Bertil Anderson, hails from SU.

At LiU, the MOU was signed in the presence of Associate Professor Karin Mårdsjö Blume, Dean, Faculty of Educational Sciences, and Professor Peter Varbrand, Deputy Vice-Chancellor.

With these latest signings, Sweden joins the growing list of places where NIE students can go for student exchanges and international practicum. Arrangements with LiU on these exchanges have been finalised. NIE is currently in talks with SU to discuss similar exchange arrangements.

Top Left, From Left: Prof Tan Oon Seng and Assoc Prof Liu Woon Chia signed the MOU with Prof Bengt-Olov Molander, Prof Hans Adolfsson and Prof Astrid Söderbergh Widding

Top Right, From left: Assoc Prof Karin Mårdsjö Blume and Prof Peter Varbrand signed the MOU with Prof Tan Oon Seng and Assoc Prof Liu Woon Chia

About Linköping University

Linköping University is a multi-faculty university where research and education are equally important. Since the late 1960's, Linköping University has been an innovator, creating new study programmes and new ways to tackle research problems. World-class research is conducted within cutting-edge domains such as new materials, IT and disability research. The LiU campuses are situated in Linköping and Norrköping in the East of Sweden. NIE student teachers stand to gain from their experience being amongst the international student population at LiU. Over 80 nationalities are represented at LiU. Many LiU students study abroad for a semester or a year. The development of an international perspective is helpful for student teachers.

About Stockholm University

1878 Stockholm University established in 1878 is a modern university with a multicultural environment. Ranked among the top 100 higher education institutes in the world, SU contributes to individual and social change through top quality education and outstanding research. Stockholm is a cultural hub and economic centre, with many green areas and surrounded by water, making it an ideal place for spending a semester abroad.

Source: NIE News September 2014, No. 89, Pg. 4.
Our university partners

Europe
- University College Capital, Denmark
- VIA University College, Denmark
- Helsinki University, Finland
- Linköping University, Sweden
- Stockholm University, Sweden
- University of Zurich, Switzerland

Asia
- Osaka Kyoiku University, Japan
- The University of Hong Kong
- National Taiwan Normal University, Taiwan

Oceania
- Waikato University, New Zealand

Our latest partnership

NIE signed a Memorandum of Agreement with Hong Kong University (HKU) in November 2015. This agreement facilitates the start of an additional University Partner to the IP programme. NIE is set to send its first cohort of up to four student teachers to HKU from November 2016.

In the true spirit of exchange, we had also welcomed 55 international student teachers from our University Partners. Likewise, the students were attached to Singapore schools for their International Practicum stints. The Partnerships unit at NIE works closely with the Singapore Ministry of Education (MOE) to expand our local School Partners to meet increasing demand. Some of the schools which have recently joined the IP network to host our international student teachers include Yishun Town Secondary School, Yishun Primary School, Anderson Secondary School, Anderson Primary School, Presbyterian High School, Rosyth School, Yio Chu Kang Secondary School and Woodgrove Primary School. We thank them, as well as the current School Partners, for providing these international student teachers with fruitful experiences and treasured lessons to take home.

Ms Jane C. Pejtersen from the University College Capital, Denmark, who was attached to Andersen Secondary School from July to August 2015 shared this:

“I got great support from my teachers, my mentor and the Head of the English department. It was great fun teaching different levels as well. I love that students have CCA after school so students can enjoy non-academic skills with their peers. We do not have this offer in Denmark… I also see the importance of teaching students the valuable learning of being able to live together as one nation despite different cultural and religious backgrounds.”

From left: Assoc Prof Eddy Chong; Assoc Prof Ivy Tan; Assoc Prof Liu Woon Chia; Dean, Faculty of Education, HKU; Prof Stephen Andrews; Assistant Dean, School-University Partnerships, HKU; Assoc Prof Tammy Kwan

Source: NIE News March 2016, No. 95, Pg. 5.
A BUMPER YEAR FOR INTERNATIONAL PRACTICUM

51 student teachers, 15 partner universities, across 10 countries and spanning 4 continents. This has been the highest number of student teachers participating in International Practicum since its humble beginnings in 2012.

The 6th International Practicum Symposium 2017, organised by the Office of Teacher Education (OTE) was held at the National Institute of Education’s (NIE) U-Connect Room on 16 August 2017. The symposium aims to provide a platform for student teacher participants of the International Practicum (IP) programme to celebrate and share their experiences with their NIE supervisors, peers and juniors.

This year, a total of 51 student teachers took part in the IP programme, and NIE received a total of 93 foreign students. During the symposium, three student teachers and twenty seven foreign students presented and gave an overview of their International Practicum experience.

The International Practicum aims to broaden and deepen undergraduates’ learning experiences as well as to develop a global mindset with an appreciation of multiple perspectives. Since 2012, the program has grown from having 1 partner University to having 15 partner Universities from Asia, New Zealand, North America and Europe.

Lau Kai Jing, a Year 2 Degree student teacher who opted to fly to Sweden for her international practicum. She was attached to Rosendalsskolan, a Swedish primary school, for five weeks.

“My mentor, Mr Johnny Wretman, was wonderful with his students. His advice for handling students who misbehaved was to focus our talk on the student’s misconduct and to avoid criticising his/her character. He believes that all children are good and that teachers should love all students equally. Mr Wretman advocates that we should always let students know that we are upset with their behaviour, but continue to love them as our students.”

When it came to comparing Asian and Western education systems, Kai Jing noticed that in Asian cultures, students often have to show absolute obedience to teachers (or any other authority figure). In the West however, a more informal teacher-student relationship is encouraged.

“I appreciate the informality between students and teachers in the Western culture as I think that students often find more motivation to work hard in a class with their ‘favourite’ teacher. However, I find it important for teachers to establish themselves as authority figures in the class, so that students can also learn about respect. All in all, it was a fruitful five weeks in Sweden. I am sure these experiences will go a long way as I embark on my journey to become a full-fledged teacher.”

Another student teacher who was enriched by the experience was Nur Adillah. Adillah spent her five weeks at Hillcrest Normal School in New Zealand.

“I had an enriching experience at Hillcrest Normal School. I now have a greater cultural appreciation and awareness. I will keep striving to be a better educator who can inspire others to achieve their dreams and reflect on my beliefs and practices.”

International Practicum has indeed fulfilled its purpose of providing the opportunity for NIE student teachers to experience school and classroom environments of a different educational system and culture.
NEW YEAR, NEW PARTNERSHIPS

NIE is pleased to welcome its 18th and 19th partner universities through two Memoranda of Agreement (MoA) established early this year. The first was signed on 5 February 2018 with Griffith University (GU), Australia, while the second was signed on 6 February 2018 with Seoul National University (SNU), South Korea.

The MoAs will support the enhanced Bachelor of Arts and Bachelor of Science in Education programmes.Partner universities will provide placements for our student teachers in two key initiatives of the NIE degree programme - international practicum and semester exchange. The immersion experience will allow student teachers to deepen their global perspectives of teaching and learning.

NIE expects to send up to five student teachers to GU in 2018 and up to two student teachers to SNU in 2019.

Source: NIEWS April-June 2018, Issue 103.

CANADA WELCOMES NIE UNDERGRADUATES

The National Institute of Education (NIE) has signed the Memoranda of Agreement (MoA) with Queen’s University. Queen’s University, NIE’s first Canadian partner, is one of Canada’s oldest degree-granting institutions. Queen’s University has influenced Canadian higher education since 1841 when it was established by the Royal Charter of Queen Victoria.

With the signing of the MoA, NIE welcomed Queen’s University as its 15th partner university in support of NIE’s enhanced Bachelor of Arts and Bachelor of Science in Education programmes — four-year immersive degree programme that integrates the best of an academic degree with a good foundation in the field of education.

Partner universities help provide placements for student teachers during two key initiatives of NIE’s degree programme — international practicum and semester exchange. Through these overseas stints, we hope to broaden our student teachers’ knowledge of teaching and learning, and add a global dimension to their perspectives on education and the education system. The ultimate goal is for student teachers to develop more global-minded and culturally-sensitive individuals. Starting August 2018, NIE will begin to send its first cohort of up to four student teachers to Queen’s University.

In an era of rapid globalisation where the world is more internationally integrated and interdependent, a global experience will allow our student teachers in the Teaching Scholars Programme (TSP) acquire a competitive advantage.

On 18 August 2015, NIE signed a Memorandum of Agreement (MOA) for an international practicum between NIE and University of Illinois Urbana-Champaign (UIUC) College of Education. NIE Director, Professor Tan Oon Seng signed the MOA in NIE on 25 August 2015 after the trip to Illinois. The MOA was signed by Professor Mary Kalantzis (pictured above, left), Dean, College of Education, UIUC and witnessed by Associate Professor Liu Woon Chia (pictured above, right), Dean, Teacher Education, NIE and Professor Sarah McCarthney, Director of Teacher Education, College of Education, UIUC.

UIUC is a highly regarded public university in the US and its College of Education is ranked as one of the best in the country.

Prof Liu said, “Our student teachers are able to leverage upon this experience to compare the unique strengths of two sets of curricula and their respective learning outcomes. Through this first-hand experience they will be in an excellent position to consider what works, what can be shared and what can be adapted so that teachers do not have to keep re-inventing the wheel.”

Through this experience, TSP scholars gain access to the best of eastern and western classroom environments and educational standards. The experience will encourage TSP scholars to understand and appreciate UIUC’s educational systems. This will help them cultivate an international outlook on teaching and learning, attain a greater appreciation for foreign culture and diplomacy and the opportunity to network with other educators.

NIE will be able to send the first batch of up to four student teachers to UIUC in July 2016 for international practicum.
RECKON AN EXCHANGE?

Having my semester exchange at the University of Sydney, Australia, was an enriching and eye-opening experience. In particular, I enjoyed an outdoor learning module, where I hiked at the Royal National Park and the Blue Mountains. In Australia, classes are more discussion focused, thus we are all required to do our readings beforehand. With a small tutorial group of about 20 people, almost everyone conscientiously did their readings. Hence, our discussions often spark intense debates, extending to multiple perspectives. There are also presentation and group work, which trained me to speak up amongst my international peers and learn how to work with students of a different education system. One main difference is that most Australian students take on part-time jobs. Hence, they have a better perspective of work-life but often only take 3

The 3 bits of advice I have advice for students who are keen to go on semester exchange are:

1. Go to classes, even if the attendance policy is more relaxed than Singapore’s. No doubt lectures are recorded but sitting in for my class on race and representation, allowed me to have discussions on racism with my classmate from another country. Through these interactions, I learned about the differences and evaluated both the strengths and weaknesses of our society and their society, giving me a better worldview.

2. Hang out with people who aren’t from your home country. As I lived with Americans and Canadians, I learned about their cultures and education systems. They also taught me to snack on raw carrots, mushrooms, and capsicum. Additionally, our conversations taught me to recognize differences and at times, reminded me of home.

3. Step out of your comfort zone. Try modules that you are keen on.

PHOTOS: FAM HUI YUEN, FELICIA CHAN & JACK LEGER RYAN

WHERE:
University of Sydney, Australia

DURATION:
4 months

“Seize the opportunity and go for exchange!”

Studying at Hogwarts!

Hiking at Blue Mountains

Source: Voices 2017, No. 31, Pg. 15.
At the core of the TSP is a robust mentorship programme whereby dedicated mentors are specially assigned to all TSP scholars from the first day of their university journey in NIE. Over the course of their four years as NIE student teachers, TSP graduates are given many opportunities to seek the advice of the faculty members. Beyond obtaining leadership insights and deepening education practices, these interactions often create a close mentor-mentee relationship that is valuable for the personal development of TSP students.

We were initially inspired by models of mentorships from renowned institutions. For instance, the daily personal one-to-one tutorial system in University of Cambridge is the institution’s open secret to success as to why there are so many research innovations and breakthroughs on a single campus. We wanted to adapt and contextualise such models for the TSP. An example will be modelling important values through ‘walking the talk’ from the perspectives of both mentors and mentees. As mentors, we have to regularly ask ourselves questions like how to live our lives and create an environment where all students can learn actively especially after they leave NIE.

Mentorship is a two-way interactive relationship and journey. Both mentors and mentees will grow from their journey together, exploring the full expanse of the knowledge universe in the four years at NIE and likely into the future. While mentors are inducting their mentees to the world of education, academia and working life in general, they also play an important role helping student teachers to crystallise their respective teacher identities and values. In turn, the mentors can learn and understand from their mentees the aspirations and concerns of the younger generation. And while mentors possess the subject matter knowledge, teaching skills and life-long experience, the mentees can bring new ideas and refreshing perspectives to their mentors, possibly leading to new interpretation of conventional knowledge.

To be an effective mentor, one needs have an open mind, an open heart and open hands. An open-mind that is non-judgemental is required to encourage students to become better people. An open heart that is honest and genuine for sharing of vulnerabilities and to stay empathetic. And open hands to reach out to help whoever is in need.

Mentoring is an important aspect of personal growth, and a key feature of the NTU-NIE Teaching Scholars Programme (TSP). It not only elevates the learning of student teachers, it sharpens the way the mentors engage the students and deliver the lessons.

At the core of the TSP is a robust mentorship programme whereby dedicated mentors are specially assigned to all TSP scholars from the first day of their university journey in NIE. Over the course of their four years as NIE student teachers, TSP graduates are given many opportunities to seek the advice of the faculty members. Beyond obtaining leadership insights and deepening education practices, these interactions often create a close mentor-mentee relationship that is valuable for the personal development of TSP students.

We were initially inspired by models of mentorships from renowned institutions. For instance, the daily personal one-to-one tutorial system in University of Cambridge is the institution’s open secret to success as to why there are so many research innovations and breakthroughs on a single campus. We wanted to adapt and contextualise such models for the TSP. An example will be modelling important values through ‘walking the talk’ from the perspectives of both mentors and mentees. As mentors, we have to regularly ask ourselves questions like how to live our lives and create an environment where all students can learn actively especially after they leave NIE.

Mentorship is a two-way interactive relationship and journey. Both mentors and mentees will grow from their journey together, exploring the full expanse of the knowledge universe in the four years at NIE and likely into the future. While mentors are inducting their mentees to the world of education, academia and working life in general, they also play an important role helping student teachers to crystallise their respective teacher identities and values. In turn, the mentors can learn and understand from their mentees the aspirations and concerns of the younger generation. And while mentors possess the subject matter knowledge, teaching skills and life-long experience, the mentees can bring new ideas and refreshing perspectives to their mentors, possibly leading to new interpretation of conventional knowledge.

To be an effective mentor, one needs have an open mind, an open heart and open hands. An open-mind that is non-judgemental is required to encourage students to become better people. An open heart that is honest and genuine for sharing of vulnerabilities and to stay empathetic. And open hands to reach out to help whoever is in need.

By Assistant Professor Leong Wei Shin, Assistant Dean, Degree & Student Life, Office of Teacher Education

MENTORING: UNLEASHING THE FULL POTENTIAL OF TOMORROW’S TEACHERS

By Assistant Professor Leong Wei Shin, Assistant Dean, Degree & Student Life, Office of Teacher Education

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To be an effective mentor, one needs have an open mind, an open heart and open hands. An open-mind that is non-judgemental is required to encourage students to become better people. An open heart that is honest and genuine for sharing of vulnerabilities and to stay empathetic. And open hands to reach out to help whoever is in need.
The last is particularly important as we want our mentees to pay forward and eventually take on the role of mentors for future students—just as many of the current mentors had been assisted when we were students ourselves. Ultimately, as mentors, we do not aspire to be just role models for students to emulate, we want to actively engage and be involved in the students’ lives and character development.

Students should not contact their mentors only when they face difficulties or troubles. Term time might be a busy period, but to make the most of the mentorship, students should learn to engage their mentors, say over a cup of coffee during lesson breaks, to get to know one another at a more personal level. I see this as a part of the training to manage time well and be resourceful in building important life-long relationship; just as the student teachers will be doing when they have their flock of students to mentor in schools.

There is currently no formal arrangement for mentoring non-TSP student teachers. There are however opportunities for faculty members to interact with them during one-to-one sessions in education research and practicum, as well as during and outside classes. I believe mentorship can benefit more students and mentors as it did for the TSP and myself. This is something perhaps we could introduce more extensively in NIE as part of life-wise learning.

Professor Low Ee Ling  
Dean of Teacher Education

“Right from the word go, Siyue was always an open book, willing to speak her mind to help us iron out the kinks of a programme we were building from scratch. We were partners from day one, partners committed to developing the best programme we can for the future batches of TSP students. She was mini agony aunt for all her juniors offering them wise advice about the multiple global opportunities-where, when to go and why. Today, we are proud partners in education-committed and impassioned to bring about the best education possible to our students- one student at a time. I thank her mum (previous Associate Dean) for her belief in NIE, for allowing Siyue to select TSP as her first choice, when, in reality, all other choices were wide open.”

Ms Lin Siyue

“Professor Low took really good care of us, checking in often and making sure we were alright. Besides academic-related advice, she also gave us practical tips for how to cope with our studies. She was also very willing to listen to our feedback about the programme and use it to make it better for the future batches.”
**Associate Professor Tan Aik Ling**  
Natural Sciences and Science Education

“Jia Xun has been a fabulous student – one who is willing to invest his time and energy to develop a strong bond in this mentor-mentee relationship. I enjoyed the times we spent agonizing over the data analysis for his URECA project, gossiping, wondering about his cGPA, planning for the future and more importantly, watching him grow and mature in his craft as an educator. Thank you Jia Xun for allowing me to be part of your TSP journey.”

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**Mr Chua Jia Xun**

“My academic advisor is like a mother to me in NIE. She cared for my wellbeing in both my studies and my personal life, and I cherish the many fun interactions we shared. Perhaps only in NIE can this friendship between a professor and a student occur.”

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**Assistant Professor Jennifer Yeo**  
Natural Sciences and Science Education

“It’s been a great learning journey for me as much as it was for Roysmond as we walked through the past four years learning to teach and teaching to learn. I had enjoyed interacting with him, listening to his aspirations and ambitions, and his frank feedback about the programme. I am happy to see him achieve success in his studies, and wish him all the best in his teaching career.”

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**Mr Roysmond Sim**

“Throughout my four years at NIE, Dr Jennifer Yeo was a constant source of encouragement and support, guiding me along in my educational journey. She offered ready advice on becoming a holistic educator and constantly ensured that I was coping well with school life. As supervisor for my URECA project, she was always patient and thorough with me in improving my writing. It was a real joy to be under her mentorship and I am extremely thankful to her for being my teacher and role-model.”
UNCOVERING A WORLD OF POSSIBILITIES

Class of 2018 valedictorian and freshly minted teacher, Lin Siyue, talks about the real-life lessons that go beyond her NIE textbooks.

Lin Siyue was among the first batch of student teachers to graduate from NTU-NIE’s Teaching Scholars Programme (TSP) with a Bachelor of Arts (Education) this year. The all-rounder had also walked away with four of the most coveted awards available to her cohort – the Lee Kuan Yew Gold Medal for outstanding proficiency in her programme of study and for attaining Honours (Highest Distinction); the Association of Mathematics Educators Book Prize for best performance in teaching Mathematics; the Tan Poey Quee Practicum Book Prize for best performance in teaching practicum; and the Victor Neo Book Prize for best performance in English Language.

Becoming a teacher had always been in Siyue’s blood. “I’ve had really wonderful secondary school teachers back in Methodist Girls’ School, who showed great care and concern for my well-being, far beyond my academics. They taught me how to manage my time, be a good leader and to show love to all. Whenever I reflect on how much my teachers have done for me, it always makes me want to have a similar influence on the next generation of students,” she said.

Surprisingly, the ace student wasn’t always a goody two shoes. “I used to fall asleep during Physics because I found the lessons really boring. On one occasion, I found myself arguing extensively with the teacher over an MCQ question until she said to me, ‘Siyue! Every day you fall asleep and now you want to argue with me?’ That encounter not only taught me to pay closer attention in class, I made sure always to have activities in class to keep my students awake!” she laughed.

As a TSP scholar, Siyue had opportunities to travel for a teaching apprenticeship in California, complete a semester exchange in Cambridge University, present a conference paper in Auckland, and learn how national initiatives were implemented through a local internship. While the exposure has prepared her for education service and working in classrooms, Siyue felt the life-changing lessons came only when she stepped out as a real teacher.

“A challenge for me was to put aside my pride. When I first came into NIE, I was rather confident of my own teaching abilities, and was reasonably certain that I could make a positive impact on my students. However, I increasingly realised how much more I had to learn and improve on in terms of classroom management and subject-specific pedagogy. For example, things that sounded good on lesson plans did not always materialise. There were many occasions when I could not finish my lesson on time, or when classroom activities did not yield the desired results,” she shared.

Siyue recalls two personal encounters that had left a lasting impression. “Once, I had a student who was absent during a test. Upon her return, she insisted that she had her parents’ permission to miss the test. When I tried to reason with her, she got up and left the class and I was at a loss whether to continue my lesson or leave the class to find the student. I later learned that this student had been struggling with an eating disorder, and the experience taught me the importance of understanding each student as an individual, instead of jumping to conclusions or labelling them as problematic. She continued, “I had another student who was extremely fond of asking questions. I thought she was endearing, and was very pleased at her enthusiasm. However, she revealed to me one day that her friends called her ‘irritating’ for asking too many questions. I was glad I had a chance to intervene and assure her that her questions had often benefitted her classmates as well. Thankfully, the student continued to be as enthusiastic in class, but the whole episode showed me just how much a teacher’s encouraging words mattered to students.”

Today, Siyue is deeply grateful to be in a position of positive influence. “For me, the greatest moments in teaching happen whenever students come up to say ‘thank you’. As a new teacher, my tendency is to want to be well-liked by my students. Given the higher priority to help students to learn and grow, this sometimes means making unpopular choices in the classroom. Some say you must be stricter at the start so students don’t take advantage, while others say that you should win their hearts first and then they will listen to you when you’re strict. I guess this is something I need to figure out on my own!”
MORE THAN JUST
TEACHING A SUBJECT

Many have chosen a teaching career to be able to change students’ lives for the better. NIEWS finds out what true education means to multiple-award winner, Roysmond Sim.

“Mr Sim, thank you for teaching us. Even though you were very fierce and always scolded us, your scolding did not go in one ear and go out the other. We knew you cared about us…” read Roysmond Sim, folding away the letter from a Montfort Secondary School student whom he had taught during an internship.

“It’s moments like these that have made the teaching profession a really simple choice for me – no other job offered the same intrinsic reward," said the recent graduate, who earned his Bachelor of Science (Education) degree under the NTU-NIE Teaching Scholars Programme (TSP). Roysmond is also the proud recipient of this year’s Lee Kuan Yew Gold Medal for outstanding proficiency in his programme of study and for attaining Honours (Highest Distinction); Rotary International 75th Anniversary Gold Medal for outstanding leadership and dedication to student activities in the Institute or community; the Sng Yew Chong Award, for overall best performance in his programme of study; and the IPS Book Prize for best performance in Physics among the BSc (Ed) cohort.

In fact, it was at Montford Secondary when the realisation that ‘education was more than just teaching a subject’ first sunk in. “To me, character building in students and guiding them in their life choices are equally important. While the TSP has provided a strong knowledge foundation, there’s more – it has also instilled in me a genuine passion for developing and nurturing young lives. During the programme, we were always addressed as ‘student teachers’. It was a constant reminder to conduct myself as a role model for my students.” Roysmond shared.

Roysmond considers himself fortunate to have had a myriad of opportunities through the TSP to grow and learn. “For example, I got to teach at Catholic High School, complete semester exchange at San Diego State University, and serve international practicum (IP) at an elementary school in Stockholm, Sweden. The chance to live abroad has definitely broadened my horizons and made me a more creative thinker. It has enabled me to contribute more to my school, as well as benefit my students in terms of learning and growth," he added.

When asked to recount his most defining TSP experience, Roysmond said excitedly: “The IP in Stockholm for sure! I was assigned to an English-track sixth-grade class in an international school but it was a culture shock all the same. In the Swedish schools, students called teachers by their first names, and discipline is extremely difficult to enforce as admonition is not allowed. The students tend to have shorter attention spans, and I had to adapt quickly to the higher levels of noise and movement in the classroom. The immersion showed me the importance of being adaptable as an educator, and that strong teacher-student relationships were absolutely essential. I also noticed how my Cooperating Teacher provided constant affirmation for students’ efforts regardless of the final outcomes of their work. This prompted me to reflect on my own approach as a teacher in Singapore, and taught me the importance of showering encouragement so that students are not afraid to fail or try their best in all that they do.”

Roysmond continued, “I think the greatest challenge facing teachers today is knowing how to motivate learning. Many in society still hold onto the mindset that one can only succeed if they excel in their studies. As teachers, we are called to help every child see his or her own gifts and to look beyond their academic achievements. While academic performance is important, not every student is necessarily gifted in this domain, and a student’s self-worth is not merely based on their test scores. Here’s where teachers can play a part to inculcate attributes like hard work and resilience, and to help students discover the value and importance of the learning process.”

LEARNING TO STAY RELEVANT AS FUTURE TEACHERS

For Danial Bin Mazlan, the winner of this year's EXPLORE Young Marine Scientist Research Grant, marine biology is more than a hobby or interest – it has equipped him to become a better educator for the future.

Danial Bin Mazlan's face lights up whenever he speaks about marine life. "I love anything to do with the sea," the third-year Biology major said, recollecting memories of his father's fish tank when he was a little boy. "I guess the fascination has been with me since young, as my parents loved taking me to the beach. I took up snorkelling when I was older, and the diving trips with family and friends have continued to fuel my interest. You could say marine biology is my favourite subject at NIE!" he added, for good measure.

It is a passion that has come a long way for Danial. This year, he was named the recipient of the 2018 EXPLORE Young Marine Scientist Research Grant, an award by the Singapore National Research Foundation's Marine Science R&D Programme in partnership with the St John's Island National Marine Laboratory. This is a funding initiative to encourage exploratory research as well as nurture multi-disciplinary problem-solving skills and interest in marine science among youths.

"I honestly didn't know that I could pursue marine biology as a subject until I'd entered NIE. I came here because I wanted to teach Biology, and my goal was to help students appreciate its concepts and change their impression of Biology as a memorisation subject," Danial said, gesturing an air quote with his fingers.

Besides, Danial wasn't interested in a desk-bound job – it's the moving around in the great outdoors, the interactions with sun, sand and sea that bring a sparkle to his eyes. "I remember a field trip to Bintan with Dr Beverly Goh, our Diversity and Evolution lecturer in Year 1. We snorkelled during high tide to catch close-up views of the clams, corals and sponges we studied in class. And then when the tide receded, we did a coastal walk to catch different species of flatworms, starfishes, crabs and marine snails in action. The following year, I seized the opportunity to revisit Bintan with my juniors, and this time we saw many other marine creatures including jellyfish. The experience was truly amazing," he marvelled.

Danial also credits Associate Professor Shirley Lim and Dr Norman Lim for motivating his interest in Biology. He added: "The highlight for me was the visit to Changi Beach for our module on Animal Diversity and Evolution. We caught quite a few marine animals – flounders, crabs, starfishes, comb jellies, squid, cuttlefish and even an octopus – and after identifying them, we would release them back to the sea."

There have been many other field trips to Sungei Buloh Wetland Reserve, and to Chek Jawa at Pulau Ubin, where the sand dollar and carpet anemones were spotted as well. "Who would have thought that Singapore could have many marine species, especially since our seawater is so murky!" he exclaimed.

NIEWS wondered if there was any connection between these research excursions and a Future-Ready NIE. "To me, a Future-Ready NIE is one that aims to keep teachers updated and relevant for the future. Given the constant change in our natural environment, these field trips and the whole research process forced me to constantly ask questions and challenge assumptions. For example, while I've been researching oxidative stress levels of Nerita snails in various parts of Singapore, I've come to appreciate the broader ecological picture as these snails serve as biomarkers for the condition of our Singapore waters. That's a valuable skill for Biology teachers to have, don't you think?" Danial mused.

Danial also hopes to see more information technology incorporated into lesson plans and future classrooms, as well as more emphasis on education psychology, and more collaborative learning opportunities in a Future-Ready NIE. "It's good to consider the hardware, but let's not forget the heart-ware as NIE transforms for the future," he quipped.
IN EXCHANGE FOR A LASTING LEGACY

Daniel Chow is a fourth year BSc (Physical Education and Sports Science) student under the Teaching Scholars Programme (TSP). Like many of his peers, one of the reasons he joined the TSP because of its International Practicum and overseas exchange opportunities. In fact, he was scheduled to attend a semester exchange in 2016. However, Daniel would eventually decide to give the opportunity a miss.

The scholar and active Boys’ Brigade (BB) volunteer explained: “Over the last four years, I’ve been mentoring a group of students in my BB cluster who were due to sit for their ‘O’ and ‘N’ levels in 2016. That was why I wanted to stay back in Singapore to journey with them through one of the greatest milestones in their lives.

“Most of them are from underprivileged backgrounds, so they do not have the advantage of private tuition, highly educated parents or supportive home environments. I reasoned with myself that there would always be another chance to travel or take part in overseas immersions; and that it would mean more to be here with the boys at such a critical juncture.”

Moreover, Daniel believed there were greater rewards to what he considered “a simple sacrifice” on his part. “The boys may be from a humble secondary school, but to me, they’re a special bunch with an immense amount of potential, just waiting to be channelled somewhere positive and life-changing. I knew that if my boys fail, then I would have failed as well – as their BB officer, mentor and friend.

“Some people say I’ve made a foolish decision,” Daniel continued, “but I’m a believer that my boys will remember what I’ve done for them and pay it forward. As one of my favourite sayings go: he is no fool who gives what he cannot keep, to gain that which he cannot lose.”

Their was a camaraderie that went beyond L1R4s or the number of ‘A’s achieved. Daniel confessed, “I also made them exercise regularly, because they were getting fat and sitting down for too long! Young people these days do not need a sage on the stage, but a guide by the side. I simply spent my weekends hanging out with them, and being there as a mentor and guide.”

For Daniel, that meant having to complete all his NIE assignments during the weekdays. “I slept at 3am and woke up at 7:30am for lessons, and of course, I had less time for my friends and family. In fact, my mom would often message me to ask when I would be home for meals!” he laughed.

Most of Daniel’s “boys”, as he calls them, are now in the Polytechnic: “Some did not get into the Diploma course of their choice, and one only did well enough to enter ITE. But I’m proud of my boys nonetheless. Grades do not define them, as they’ve given their best to study. Regardless of the academic outcomes, I’m glad they have grown into fine young men with great character over the four years. Recently, one of them even got a scholarship. Now, that’s very rare for my boys!” he beamed.

When asked if he had a teacher who inspired him similarly, Daniel was quick to mention his form teacher from Christ Church Secondary School, Mr Wesley Cheong. “When I was in trouble, Mr Cheong would always put me first. He believed in me, and never let me walk alone. As a teacher-to-be, the best way for me to thank Mr Cheong is to pass the baton to the next generation, and to lead my students with integrity and grace,” he said.

Daniel hopes his example will inspire his peers to take education beyond the classroom. “Start small, sow one seed at a time, and water them weekly,” he mused. “It takes time to nurture young minds, so do not be discouraged if your students do not seem to be learning. Know that you are a role model to your students, and that your words and deeds may one day shape the way they deal with crossroads and challenges in the future.”
LEARNING TO SEE THE WORLD IN A NEW LIGHT

The biggest aspiration for fourth-year Geography major, Lim En Qi, is to be in a profession that allows her to pursue her passion. The Bachelor of Arts (Education) undergraduate has always envisioned herself sharing her Geography knowledge with future generations, engaging them in discussions about pertinent world issues, and empowering them to reflect on what they can do as leaders of tomorrow. “I feel there’s no better way to do this other than through teaching,” she expressed.

“For me, Geography is a powerful subject because it goes beyond imparting knowledge. It requires students to think deeper about the world we live in. This inculcates values which work towards nurturing active and concerned citizens of the future,” she continued.

En Qi’s love for Geography arose when she was first exposed to the subject in secondary school. “Growing up, I liked everything about nature. Any insights about our planet earth, from the formation of physical landforms to the reasons behind natural disasters, would spark my excitement and interest!”

She found herself connecting easily with the subject due to its relevance to everyday experiences. “I am especially interested in Urban Geography. An understanding of how different cities manage urban development has provided me with a global perspective to reflect on Singapore’s urban development and progress,” she said.

En Qi shared that she continues to make new discoveries about Geography every day. While the subject may seem to be an amalgamation of various disciplines to many, it also grounds knowledge in geographical concepts such as ‘space’, ‘place’ and ‘scale’. As En Qi puts it, these concepts can shape one’s perception of the world and reveal new insights on existing knowledge. “Geography has not only offered me with a breadth of knowledge to analyse pertinent issues, it has challenged me to rethink these issues through a geographical lens,” she added.

She recounted a fieldtrip to Little India with Dr Diganta Das, her urban geography lecturer, while at NIE. “He taught me to examine ‘space’ in the heartlands through the lens of the local community. This was an eye-opening experience that inspired me to want to teach Geography even more.”

Dr Tricia Seow, who supervised En Qi’s Undergraduate Research Experience on Campus (URECA) project, is her other role model. “She was a great source of strength as there were countless times when I struggled to make sense of my research and data. Dr Seow has a way of helping me see new perspectives in what I was doing. She’s very open to questions and feedback, which has been instrumental to my growth as an educator. Dr Seow has definitely been more than a mentor to me; she’s also a friend and supporter, always cheering me on and encouraging me to pursue even greater heights.”

When asked to share how she intends to make a difference as a teacher, En Qi replied, “To me, ‘making a difference’ is a long-term goal. The differences do not have to be life-changing ones; they can be small moments that empower students to become better learners and individuals. As teachers, we’re at the forefront of nurturing future generations – our words, outlook on life and dedication to our profession are a source of motivation and inspiration for our students. I do not think ‘making a difference’ is something we intentionally practice, rather they are actions and decisions we subconsciously make because we care.”

Explaining her approach to student-centred learning, En Qi said: “As a Geography teacher, my first priority would be to get to know my students – their interests, learning preferences and concerns. I believe in giving students greater autonomy in learning, as this would engage students in meaningful learning. To achieve this, I would tap into my students’ prior knowledge, use real-life contexts when introducing geographical concepts, and make a conscious effort to expose them to geographical data. This would hone their ability to think critically, deepen the learning experience, and allow them to discover new meaning in what they see”.

Two years ago, Ms Srija Sasidharan took the stage as Valedictorian of her cohort and also as the recipient of the British Council Book Prize and the Wong Hee Hua Memorial Prize.

As recognition for her excellent performance, NIE offered her an opportunity to ‘cross-over’ to the degree programme. Today, she stands tall again with not just a Bachelor of Arts degree but the Victor Neo Book Prize as well.

“Coming from a home of educators certainly contributed to my motivation in becoming an educator. The awards that I have achieved over the past few years are prestigious academic achievements in my life and they will only serve to spur me on to develop further professionally and personally,” the cheerful individual quipped. Indeed, Srija made full use of the opportunities given to her while she was studying at NIE. She wrote a script for the official opening of Horizon Primary School’s musical and also went on an enriching International Practicum experience in Zurich, Switzerland. There, she had to adjust her teaching pedagogy to suit children from a different culture and whose dominant language was not English.

“That’s what I love about being a teacher. You get to learn as much as you teach. Every day, you meet new minds that inspire you to constantly revise your ideas and philosophies as an individual and as an educator. You meet young minds that teach you to think openly,” she said.

Her education as a teacher does not stop there. Srija will soon further her studies and pursue a Masters’ degree in English Language at the University of Edinburgh in Scotland, UK. We wish her all the best in her journey to become a quality educator.

The image shows Ms Srija Sasidharan (second from left) and her family enjoying a day to remember with Mr Heng Swee Keat (middle), Minister for Education.
FROM NIE TO CAMBRIDGE
By Office of Teacher Education and Ms Lin Siyue, Bachelor of Arts (Education)

Jasper has since joined the teaching fraternity as an English teacher at Anglican High School. We had the opportunity to find out what the journey from NIE to one of the most prestigious universities in the world was like for him.

Jasper had always found great interest in linguistics and research during his time at NIE, where interactions with professors and peers led him to fall in love with the subject. Such passion fuelled him throughout his Cambridge experience, where he tackled rigorous courses and engaged actively in research. Relating anecdotes about winter breaks spent writing his thesis, or how he and his classmates would head to a bar after Phonetics and Phonology seminars to continue their discussion on the class topics, he fondly recalls his academically challenging but fulfilling time there.

Now a classroom teacher, Jasper shares with us how both NIE and Cambridge have helped him to engage his students. He says, “What we learn and do at NIE, like micro-teaching, is very relevant to what we do in the classroom”, and he is appreciative towards the professors here for making tutorials interactive and always willing to answer his many queries. This is a sentiment shared by current students who similarly enjoy the approachability of and specialised attention from our professors. He also said that NIE’s rigorous BA (Ed) curriculum had given him a strong foundation in research and content, especially in experimental phonetics. The skills and knowledge garnered were especially helpful in the writing of the final thesis, for which he was awarded a High Distinction. Jasper also feels that studying linguistics at a world-renowned institute has also benefited his teaching because students get excited when they realised that he was trained in linguistics and phonetics. With deep conviction, Jasper shares his dream for his students to “enjoy English as much as I did”, and finds that talking about his experiences studying linguistics helps students to see the subject as more than just comprehension practices and essay writing. It is evident that both Jasper’s desire to inspire his students through education and passion for linguistics underscores his role as a teacher, and his journey through NIE and Cambridge University have further strengthened these motivations.

Besides his achievements, his outlook on learning will serve as an inspiration to students today. Of his time in the BA (Ed) programme, he says, “I realised that when I tried very hard to get good grades, I didn’t do as well but when I really enjoyed the process of learning, I did better.” He heavily emphasises the love for learning and encourages current undergraduates to find passion in what they are studying, so that one day they can do the same for their students.

Jasper’s own love for learning manifests in his desire to continue carrying out research in the field of linguistics, perhaps in the near future, as he sets his sights on obtaining a PhD. We wish him all the best as he continues to inspire his students, pursue his academic interests and contribute to the future of education in Singapore.
FROM BACHELORS TO PhD

Getting To Know Our Students
Mark Lim Jian Wei, PhD student

By Office of Graduate Studies and Professional Learning

What attracted you to a higher degree programme at NIE?
During my undergraduate days, I was given the opportunity to work with the Plasma Sources and Applications Centre (PSAC), a research group under the Natural Sciences and Science Education (NSSE) Academic Group, helmed by Professor Xu Shuyan for my final year project (FYP). I continued working with PSAC even after finishing up my FYP independently, presenting my findings at conferences and in technical journals. So when I had the chance to enroll in a higher degree programme at NIE, the natural option was to take it up, knowing that the work I have done so far has barely scraped the surface of things to follow.

How would you describe your interactions with NIE faculty members?
I recall my very first lecture (Fluid Mechanics) as an undergraduate, where Prof Xu captivated the class and displayed mastery in his understanding of the subject matter that would eventually lead to questions beyond the classroom. The classes I had as a Physics student with the other Professors allowed room for dialogue and discussion which would rarely be seen elsewhere. I was also given the opportunity to be under the supervision of the faculty members from the Chemistry division. The interactions that I had taught me various skills and content which would become crucial in my research later on.

What is your research on?
My current research deals with the fabrication of materials for high-efficiency photovoltaic applications for generation and supply of clean energy through plasma processing. In line with developing a truly environmentally friendly means of energy generation, the feedstocks used in the processing of materials should also be environmentally friendly. I currently am working on Nitrogen based plasma discharges and its functionality in developing advanced opto-electronic materials.

What impact do you wish to make with your research?
My goal is to realise novel materials through plasma processing for the purpose of energy capture and energy storage; to bring about a paradigm shift in the way renewable energy is perceived by the community at large, and to re-ignite interest in photovoltaics as a means for sustainable and clean energy generation.

At the same time, I believe that the quality of education of youths is crucial in ensuring continuity in the field of Science and Technology. I believe that knowledge should be made accessible to youths and that it is important to keep students updated with the up-and-coming trends in research. As a research student at NIE, I hope to inspire undergraduates and trainee teachers to be passionate in what they would eventually be teaching in mainstream schools.

What is the best part of being a student at NIE?
It would be the opportunity to be under the close supervision of Professors who give constructive feedback, as well as the flexibility to conduct research independently. The graduate student community in NIE is also very supportive and interactions with peers often result in meaningful discussions with numerous new insights on a plethora of fields.

How will the programme prepare you for your career progression?
Being a research student in NIE gives me a competitive edge as I am not only able to hone my expertise in my field of research in a laboratory which can hold its own amongst the best in the field, but also to develop my skills in pedagogical methods in the delivery of lessons.

Source: Getting-To-Know series by GPL
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The Teaching Scholars Programme is a premier scholars programme by Nanyang Technological University and it is administered by the National Institute of Education (Singapore).