# Dunia

THE MAGAZINE OF UWC SOUTH EAST ASIA

UWCSEA STRATEGY 2018–2023

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There is a quote of Nelson Mandela's: 'May your choices reflect your hopes, not your fears.' The problem with living in fear is that it reduces and limits our potential. It's the enemy of creativity. It makes us feel insecure and negative towards our neighbours. I am here to tell you that hope is the right choice. This is what your UWC inner training has been about all this time."

Ros Wynne-Jones '89
Journalist and Guest Speaker at Dover Class of 2018 Graduation

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# Dunia











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# A NEW COLLEGE STRATE

### By Chris Edwards, Head of College

I don't know how many thousands of books there are on leadership models, but frankly everyone should save themselves a whole lot of money and instead just read the words Shakespeare gave Henry V on the eve of the Battle of Agincourt.

The Henry V speech is a trip round the bay of modern leadership theory, with Henry, in a single address to his troops, displaying charismatic, transformational, democratic, situational, autocratic and even, I would suggest at one moment, laissezfaire techniques. Henry's words take only a few minutes to read (much less time than "Good to Great" and other corporate manuals), but they resonate through the centuries. The trick of Henry's success, it seems to me, lies not just in his anticipating the leadership models but also in his deft use of the ADKAR model of change hundreds of years before business leader Jeff Hiatt thought he'd invented it. For those unfamiliar with ADKAR it stands for Awareness, Desire, Knowledge, Ability and Reinforcement.

**Awareness:** Do you weary English peasant-soldiers know why I've brought you to France? Tick.

**Desire:** Good. Can I then confirm you are all up for the challenge of a great

battle in the mud in which thousands might die? Tick.

**Knowledge:** Okay, that's great. Good for you. Now given we are also massively outnumbered, do you understand what you have to do to win through this seemingly hopeless situation? (Hint: remember those cool new longbows I gave you?) Tick.

**Ability:** Er ... please tell me you have actually been practising with those longbows? Tick.

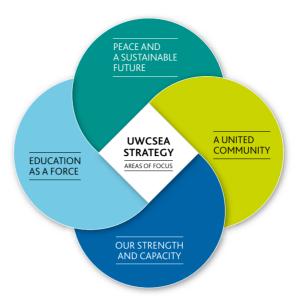
**Reinforcement:** Super. So when we do come through victorious, you will quickly realise keeping the peace is harder than winning the war. Stay disciplined and focussed ... and don't anybody secretly go back to using those crummy old spears and swords just because *that's* what you always did. Got it? Tick.

Now, I fear there are few similarities between myself and Henry V, but the principles and methodologies above are all valid in our current context, and so I segue to the genesis, development and coming implementation of UWCSEA's new Strategy. It may not resonate in history quite like the Battle of Agincourt, but for us it starts a necessary and exciting journey.

We began a year ago with a small, tight group of senior leaders. Our first decision was to identify what was axiomatic to us ... I suppose you might look at it as the "we hold these truths to be self evident" piece. And we decided that the guiding principles you see on our website (the Mission Statement of course, the Educational Goal, the Ambition, the Values and the Definition of Internationalism) were all as relevant as ever. Whatever might happen next, therefore, could not in any shape or form diminish the learning programme: that was sacrosanct. So, a comforting start: we had deep, secure foundations.

We knew too that a creative and long-term financial strategy was also going to have to be a part of those foundations. Yes, we were focussing on the next five years especially, but we had to ensure were ready for inevitable changes coming our way further down the line. Some of the external forces which act upon us, be they for good or ill, cannot be controlled: but we were comforted by the fact that while you may not be able to stop that big wave coming right at you, you can always learn to surf. So we had to make sure we prepared for waves like: Singapore's increasingly dynamic and volatile climate regarding international education; the need to be accredited by various external organisations like the Council for International Schools; the increasing compliance and regulatory requirements from government; and the fact that both Dover and East have leases. (Like other international schools,

# GY 2018-2023



we don't own the land on which we stand. East's lease expires in 2050; Dover's in 2030.) We had to formulate a financial strategy that secured the future. With two huge campuses now running successfully, we were switching from a growth to a sustainable model for our finances.

But back to the guiding principles. In building the strategy on those foundations, we sought to deliver a transparent, clearly articulated process. It needed to honour multiple perspectives while seeking reliable evidence and data to inform decision making, and all stakeholders should be involved at different stages of the journey (students, parents, staff, governors, etc). We wanted the strategy to be fluid like a river, adapting to changes and obstacles as required; we also wanted to ensure it could survive from year to year while elements within it might change. As a result we identified aspirational future states with specific, actionable projects and tasks forming the roads and bridges to take us there. The generative discussions we sought were often predicated upon questions such as What are our assumptions? What information do we need here? What might be alternatives? What should we stop doing?

The small group of leaders produced areas of focus which were then

shared with a wider leadership body, and thus the scale of collaboration grew. Our new partners would need to be champions of the emerging strategy, but at one point things actually became too easy. Once, when there was much congratulatory talk following a long session in which we had virtual unanimity, we decided to halt proceedings and reconvene the following week with a view to creating deliberate divergence by playing devil's advocate and asking extreme and potentially divisive questions. If we were all so well aligned at this stage, was that not in itself a cause for cultural concern? Was this, for example, an indication less of glorious common purpose than complacency?

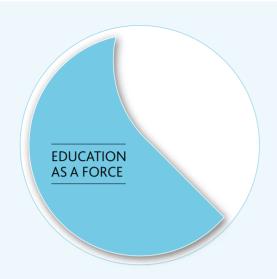
By February, our increasingly welldefined Areas of Focus were ready for the Governing Body, and the Board and Executive worked together productively on the ideas, modifying, reworking and occasionally casting off strands of thinking. Say it quietly, but I think a lot of people rather enjoyed it. As we looked to find the right words to introduce the strategy, we invited parents and all colleagues to get involved, and so a major rewrite took place when we realised our first draft came across as the work of UWC zealots. Kurt Hahn might have been proud but the strident diction was jarring to many. After input from those parents and colleagues, language was honed and in some areas softened to better reflect who we are.

And so, this final term of the academic year, we presented our strategy with its four Areas of Focus to our community. We're not done yet because from the strategy we must formulate the two Campus plans and the one College equivalent (these plans are where the Gantt charts, graphs and traffic light systems will indicate whether we are meeting schedules and hitting targets). But the map is now before us and it is our job to navigate safely and effectively.

We want a true UWC education with its attendant learning programme to be available for future generations of students in Singapore, regardless of leases, economic flux and external regulations. And we want to make that journey without diluting our quintessence: we are not just an international school, we are a UWC.

We know who we are, where we want to be and, we believe, how to get there. And when the business manuals fail us, we can fall back on the words of another character from a different, even greater, Shakespeare play:

This above all: to thine own self be true, And it must follow as the night the day, Thou canst not then be false to any man.



### Education as a Force

At UWCSEA, we educate our students to impact on individuals and society in accordance with the UWC mission. Through a holistic Learning Programme, students develop the skills and qualities (which meld to form the UWCSEA profile) to fulfil their potential and become life-long learners and ethical agents for change.

We understand educational excellence to be manifested by student learning across all five elements of our Learning Programme. This spirit of excellence, balanced with a serious commitment to well-being, will help inspire our community to rich experiences and high achievement.

Our innovation will align with our values. We will take scalable, safe-to-fail approaches to probe and test the boundaries of our strategies and practices.

Within the contexts of Singapore and our Learning Programme, we will seek to be inclusive and diverse, in accordance with our definitions of these concepts, and we will recognise the importance of intercultural competence.

Strategy E1: Extending Excellence Strategy E2: Deliberate Innovation Strategy E3: Diversity and Inclusion

### Accountable

Learning Leadership Team reporting through UWCSEA Board Education and Talent Committee



### Peace and a Sustainable Future

Our community is strengthened by diversity and united in common purpose. On local, national and global platforms, we will seek to engage with and impact positively on individuals and communities who hold similar, disparate and diverse ideas.

All members of our community should understand Peace to include concepts such as justice, equality and human rights and to be more than the absence of conflict. Our Learning Programme will help seed and nurture these concepts. We aspire to promote Peace in all of its contexts—for the individual, our communities and our global societies. We will embed structures to support learning for Peace and its systematic implementation across the College, and develop meaningful links with like-minded organisations that are in pursuit of the same goals.

Sustainability as a systemic response means aligning ourselves to the UN Sustainable Development Goals to end poverty, protect the planet and ensure prosperity for all within the means of nature. We will engage with these challenges by deepening our intellectual and moral capacities, and building our collective wisdom. We will develop our curriculum to ensure that sustainability is woven into all five elements of our learning programme from K–12. We will also develop our community's capability in systems thinking.

Strategy P1: Working for Peace Strategy P2: Sustainability as a Systemic Response

### Accountable

Learning Leadership Team reporting through UWCSEA Board Education and Talent Committee



### A United Community

A strong College community, based on shared values, is fundamental to our success. Our community members will demonstrate respectful attention to diverse needs and perspectives, and compassionate engagement with others.

We seek to promote the educational significance of UWC residential life and will seek to harmonise the best of the day and residential experiences. We will strengthen relationships with one another, between campuses and with those outside our immediate community of students, staff and parents. We will build strategic relationships that extend our reach and deepen our impact. We will intensify the focus of the UWCSEA Foundation, enhance Alumni engagement, and continue to dedicate an agreed percentage of our annual turnover to scholarships.

Our fundamental responsibility to our community members is to keep them safe, well and secure at all times and in all situations. We will continue to develop robust safeguarding practices, and empower our community to identify and respond to safeguarding situations. We will implement policies, practices and programmes to support staff and student wellness and safeguard everyone in our community.

Strategy C1: Strengthening our Community Strategy C2: Keeping People Safe and Well

### Accountable

Head of College with members of senior leadership teams (LLT, DLT, ELT and OLT) through UWCSEA Board Governance and Engagement Committees



### Our Strength and Capacity

UWCSEA puts people, not systems, first. Our plan for sustainable growth will be transparent and support our community, while reflecting and responding to current realities and future possibilities. We will guarantee the financial security of the College while balancing present and future educational, environmental and organisational needs.

In order to retain education as our focus, we recognise the necessity of humane, sustainable and effective systems.

We will develop operational systems that set a positive, data-informed culture around rigorous practices, adhering to all external regulatory requirements. In adapting to any changes, we will support our community and protect the College's ethos and values.

We will establish decision-making processes and leadership structures that enhance operational effectiveness while retaining flexibility to adapt to changing circumstances.

Strategy S1: Ensuring Long-term Financial Sustainability

**Strategy S2: Embedding Effective Systems** 

Strategy S3: Establishing Effective Decision-Making Structures

### Accountable

Head of College with members of senior leadership teams (LLT, DLT, ELT and OLT) through UWCSEA Board Governance, Finance and Infrastructure, and Audit and Risk Committees



Elizabeth Bray joined Dover Campus as a Science and Mathematics teacher in 1996 and has held various leadership roles in the subsequent years, most recently as Middle School Principal from 2015–2018. As she transitions into her new role as Head of Dover Campus, *Dunia* sat down with her to reflect on her time at the College and her new position.

### The first 100 days in a leadership role are always very exciting. What are you most looking forward to?

This is a really interesting question and made me wonder exactly how many days I have already worked at UWCSEA. Since I joined in August 1996 I think I must be closing in on 4,000 days!

The exciting part of my new position will come from working with new teams of people. For the next academic year, the Dover leadership team will have a new Middle School Principal and two new Vice Principals (Middle School and Junior School); it is always a good thing when new educators join the school with fresh ideas and approaches that align with the values and vision for UWCSEA.

I am also looking forward to getting to know more about our Residential Boarding community. Many, many years ago I was a 'non-resident assistant' in the boarding houses that were located on the land that Anglo-Chinese International School now occupies. I know that things will have changed since then and I can't wait to learn more about this important part of the College.

### What has kept you at UWCSEA for so many years? You joined in 1996—that's a long time!

Like many others before me I signed a contract fully expecting to work at UWCSEA for four to five years, as I had at previous international schools. I am always a little bit surprised to realise that 1996 was not four to five years ago. If I had to narrow it down to one thing that has kept me at UWCSEA it would be the professional challenge of teaching in a school where the values that underpin our mission statement are more than just words. I loved teaching Mathematics and

Science but making the concepts within these disciplines authentically connect into the Service, Outdoor Education and Personal and Social Education programmes was important work that pushed me to be the best teacher for my students. Every year new and exciting professional challenges have allowed me to work alongside outstanding colleagues who relentlessly ask tough questions about best practice and what it means to teach at UWCSEA.

### What drew you to the field of education?

My undergraduate degree was from the Department of Earth and Planetary Sciences at McGill University in Montreal, Canada. I studied the physics, biology and chemistry of our planet during the day and paid the university fees by coaching synchronised swimming in the evenings and on the weekends. It wasn't until after I graduated from university that I started to think about combining my scientific understandings with my coaching skills towards a career in education. The first 'real' teaching job I had, took me to Yellowknife in northern Canada where I was teaching Middle School Science in French. Being able to teach in either English or French was a huge advantage as a young teacher looking for a job in Canada.

In hindsight, maybe I should have seen education as the path that I would inevitably pursue. Both my maternal and paternal grandmothers were teachers. My maternal grandfather was a school principal and my father was both a practising neurologist and a full professor of neurology at McGill. Regardless of how I got here—I remain grateful for everything I have learned and continue to learn about how to effectively support the development of young people in our rapidly changing world.

### Tell us a bit about your connections to East Campus and how you and Graham Silverthorne, Head of East Campus, work together.

I have been very lucky to be connected with the growth of UWCSEA and the East Campus since the beginning. As a staff-elected Governor many years ago I signed my name to an official document saying that we would open a second campus; it's hard to believe that we are already approaching the tenth anniversary of East. As part of the College's Curriculum Articulation project (from 2010–2015) I worked with many talented colleagues across both campuses to develop the Learning Principles and our UWCSEA Profile. Professionally it was a very exciting project and it also helped to develop relationships and common understandings that will be crucial to my new role.

Welcoming Graham Silverthorne to UWCSEA has been a pleasure. Graham and I have quickly established a good working partnership; he is an invaluable resource for me as I come to understand the differences between leading an entire campus and leading just the Middle School. Equally, I like to think that I am able to provide some context for him when he is trying to understand the College culture and how our Learning Programme has been developed over time. We are currently engaged in deep conversations about further synergies between East and Dover and how the new UWCSEA Strategy will be brought to life across both campuses.

# After many years on Dover in a few different roles, how will you re-orient yourself to the Head of Campus role? And what will you miss most?

The re-orientation process has already started and I can already spot the things that I will miss the most. Our Middle School is full of talented and caring teachers working with amazing young people. The Head of Campus role puts me at some distance from these people. I know that I will miss

those close connections the most. But I am busy establishing stronger connections into other parts of the school—for example, with Finance and HR, which are big focus areas for a Head of Campus.

### How would you define your leadership style?

I know I should have Harvard Business Review jargon at my fingertips to answer this question; ready to explain my collaborative, pragmatic and empathetic leadership style and I am reasonably certain those would have been the words I used to describe myself in my interview for this position. The words are accurate but in the same way that I would struggle to describe my style of teaching and learning, I struggle to explain my leadership style. I think that over time, what I have learned is that whether it is teaching and learning or leading, I am much more successful when I know the students or adults with whom I am interacting. No human being is one-dimensional. We are complex and complicated creatures; taking the time to understand another perspective makes all human interactions more productive, and hopefully in the long term, more successful. So I guess you could say my leadership style is humanistic.

### Any final thoughts?

It is an enormous honour to become the Head of UWCSEA Dover. When I think back over my many years at the College, I see a community that has continually adapted and changed while staying focused on our true north, the UWCSEA mission. I feel a big sense of responsibility to the past, but I also feel very excited at all the possibilities that are ahead of us. I know that the people in our community—parents, staff and, above all, students—are what make us who we are, and my main responsibility is to make sure everyone benefits from our collective wisdom. I really can't wait to get started.

### Understanding the UWCSEA Curriculum

By Carla Marschall, Head of Curriculum Development and Research, UWCSEA and Vice Principal Infant School, Dover Campus

Developed from our mission, the concept-based curriculum at UWCSEA enables students to embrace challenge and take responsibility for shaping a better world. This is achieved through all five elements of our holistic learning programme—academics, activities, outdoor education, personal and social education and service.

### Concept-based curriculum explained

Our concept-based curriculum organises learning around the development of transferable ideas, which may be disciplinary or interdisciplinary. Knowledge and skill acquisition is vital, but not the end goal in a concept-based curriculum. Using their knowledge and skill learning, students construct and express conceptual understandings, which transfer to new contexts. This allows our students to apply critical thought in any situation, now or in the future.

### **Standards**

Standards are the significant concepts from each learning area, articulated into 'conceptual statements'. These apply to all grade levels from K1 to the IB Diploma Programme (IBDP). This ensures that these concepts are revisited in developmentally appropriate ways as students transition from grade to grade.

### **Conceptual Understandings**

Under each standard are conceptual understandings, which are conceptual statements written for specific developmental stages. These may be grade-specific. This allows students to access the broader concepts in the standard, while simultaneously developing an understanding of specific concepts appropriate to the grade-level.

### **Benchmarks**

Benchmarks are attached to each conceptual understanding in each grade. These describe what a student should know or be able to do at each stage of their learning in order to develop understanding in each subject.

In the High School, the standards, conceptual understandings and benchmarks specifically take into account the requirements of the external examining bodies that set the (I)GCSE and IBDP examinations that students sit at the end of these two-year courses in Grade 10 and Grade 12.



Science: energy and its transformation

In this Science example, all students work towards a Standard related to energy and its transformation. The Conceptual Understandings in each grade outline what students should understand at each stage—in early Primary School this consists of conceptual understandings around light and sound energy. By Middle School the conceptual understandings widen, asking students to understand electrical and thermal energy. This is further refined in the High School as students in the IBDP are asked to investigate, within their chosen area of science, myriad concepts in-depth such as electricity, magnetism, wave phenomena and nuclear energy.

Developing the UWCSEA Qualities and Skills: across all grade levels, students also learn about the scientific process and the attitudes required to be a scientist, for example being a critical thinker, a communicator, resilient and creative.

### K-12 Standard: Energy comes in different forms which can be transformed from one to another, the total amount of energy remaining constant in the universe.

This Science Standard related to energy and its transformation is illustrated by the vignettes below. Note how the learning activities align to the grade-level Conceptual Understanding, as well as to the overarching Standard.



### **Conceptual Understanding:**

Substances and surfaces can reflect, refract or absorb light, changing its pathway.

Our approach to science learning in the Infant School is to harness students' instinctive curiosity by designing rich, open-ended activities that connect to 'big ideas' from our curriculum.

In order to build students' conceptual understanding, teachers engage them in activities that ask them to question, wonder and hypothesise. At the beginning of the Grade 1 Light and Sound unit, teachers create a 'light lab' in the Pod where students can tinker with their ideas. The space is filled with myriad objects to explore: mirrors, transparent blocks, coloured cellophane, torchlights and prisms. With these materials, students make observations, develop testable questions and engage in scientific experimentation. Teachers listen to students' thinking and ask probing questions, changing the Pod space over the course of the unit to provoke further investigation and support learning.

At the same time, students learn about the scientific process and attributes of being an effective scientist such as perseverance and open-mindedness. Part of this process involves the accurate recording of one's thinking. In Grade 1, we do this by introducing students to their own science notebooks. Through Writing Workshop mini-lessons, students learn to create observational drawings, use arrows and labels, and embed scientific vocabulary into their writing. Teaching students to engage intentionally with their notebooks shows them how important their work as scientists is!

### Links to UWCSEA Qualities and Skills







# Conceptual Understanding: The transfer of heat energy occurs through conduction, convection and radiation.

In Middle School students are introduced to more sophisticated scientific concepts. These are relevant to their lives, interests and experiences, and presented in ways that spark their curiosity.

Grade 7's unit on heat transfer links to the Standard being illustrated. Wanting students to see how the particle model applies to ideas in their lives, teachers engage students in a variety of learning activities that go well beyond rote learning. These activities build on ideas introduced in Grade 6, expanding students' understanding by presenting learning in a new context. After forming an initial understanding of the heat transfer concepts of conduction, convection and radiation, students are placed in expert groups to investigate a particular form of heat transfer. Each group then teaches students from other groups about their topic. In this way, Middle School students engage in scientific discourse and experience the value of collaboration in deepening their understanding.

Scientific knowledge is powerful, but only if it is used to understand and interpret phenomena from the real world. To nudge Middle School students to develop their metacognition and transfer their understandings, teachers engage students in a number of novel demonstrations. Students must then explain these using their prior knowledge of conduction, convection and radiation. This stretches student thinking and reiterates the importance of using one's learning to make sense of the world. Throughout Middle School, theory and hands-on application are balanced to ensure that students view their learning as something which empowers them.

### Links to UWCSEA Qualities and Skills



Critical Thinker
Collaborative



Communicator



Self-Manager



# Conceptual Understanding: For simplified modelling purposes the Earth can be treated as a black-body radiator and the atmosphere treated as a grey-body.

In Grade 11 IB Physics students explore solar radiation and the concept of black body radiation (radiation emitted by a perfect emitter). After students form an initial understanding of a black body, and compare it to the related concept of emissivity, they use an online simulation to investigate further. Using the simulation, they take measurements and extrapolate the relationship between temperature and peak emissivity, represented by the equation  $P = e\sigma A T^4$ , where e has values from 0 to 1. This helps students acquire specialised concepts within the area of solar radiation, and begin locating relationships between them.

In order for our students to become scientists, they need to see the applicability of science ideas to a variety of situations. To support students in making connections between unlikely contexts, teachers present case studies and ask students to link them to ideas studied. In the IB Physics example, students apply the concept of 'peak emissivity' to an incandescent light bulb and a low-energy LED light bulb. Using their understanding, they see that the incandescent bulb's temperature means that most of its emissivity is in light which is not visible. Hence these bulbs are less energy efficient. The LED light bulb, in contrast, is fixed to have peak emissivity in the visible range, thereby reducing the amount of energy needed. Such case studies help students see the usefulness of specialised scientific knowledge to solving some of the most critical environmental, sociocultural and economic problems we face.

### Links to UWCSEA Qualities and Skills



Critical Thinker Cre



# To CORRECT or not too KORRECT?

Learning in the 21st century beyond the ticks and crosses



How should teachers (including parents) respond to multilingual learners' errors in written English? If that sounds like a silly question, read on!

The answer is obvious, isn't it? Surely, we should correct errors, shouldn't we? How else will students learn from their mistakes? Duh!

A study in Hong Kong, for example, found that the majority of students surveyed pushed for complete and comprehensive correction of all their errors by the teachers, and they complained when the teachers fell short of this. What wonderfully keen and dedicated students!

Reportedly, they would settle for nothing short of total correction so that they could redraft their work to perfection ... more easily.

And there lies the crux of the matter. If the objective of the teaching is to facilitate the production of perfect display pieces in English, then the more the teacher corrects, the better the final copy will be. In fact, teachers might as well do the whole piece of work themselves, and thereby save everybody heaps of fruitless time and effort.

Unless, of course, the more proper aim of learners' writing tasks is not to manufacture perfect display pieces, but rather for learners to develop their own control and learning. If this is the case, then things get more complicated.

Firstly, it is useful to distinguish between mistakes that could have been avoided and errors that simply lie outside the learner's competence zone.



With the former, 'mistakes', perhaps the learner has been careless about the language in her eagerness to express her ideas and demonstrate her understanding of the topic. After all, the main point of using language is to express thoughts rather than to show off grammatical accuracy. So what would be the point of teacher correction here? There is even the risk of sending the wrong message: "It's not your ideas that count; show me you can get those blessed verb agreements right!"

Ah, that's all very well, but nevertheless, accuracy of language does remain an undeniably important factor in successful communication of ideas, doesn't it? Yes, it does, and if avoidable mistakes are undermining the quality of the ideas being expressed, then we should have no compunction in telling the learner to go away and write the work again with proper care and attention to accuracy so as to do justice to her ideas. If the mistakes were avoidable, then the learner should be able to identify and correct them with minimal or no further prompting from the teacher.

So, after all, there does not seem to be so much scope for actual teacher corrections here, in the case of avoidable mistakes.

What about with those unavoidable errors, then, where the learner has plainly not yet mastered the vagaries of the English prepositional and tense systems, but is nevertheless earnestly wrestling out solutions to important global issues? Surely here, at least, the teacher's pedagogical input through the red pen is helpful? Well ... yes and no. No, because here again the idea content is paramount, and to slash in red at a learner's ideas probably does not do much to engender independent thinking or to boost confidence. And no again because for every possible red slash there are likely to be



immeasurably more green ticks deserved for all the aspects that have been effectively executed.

Besides, errors can stand as a healthy sign that the learner is trying to go beyond what he comfortably knows, which is exactly where we want the learner to freely venture.

However, as we most definitely do want to guide the learner from can't-do to can-do, then yes, sensitive and discretionary use of the red pen (to whatever extent red is compatible with sensitivity!) might work.

But why use red? And don't forget to balance the critical red with the congratulatory green. After all, learning is all about carrots and sticks, isn't it? Hit the wrong with the red stick and reward the right with the green carrot (if you'll bear with the miscoloured metaphor). Um ... well, actually, such pseudo-Skinneresque donkey doings, for all their lingering intuitive appeal, have rather fallen out of (current) fashion and favour among the boffins.

But we have to do *something*, don't we? A resounding "yes indeed" to that. There is so much we can and should do to capitalise on the learning opportunities presented by errors. There is so much we can do that seems immeasurably more constructive and engaging than plain old correction.

Here are a quick half-dozen of the favourite technology supported approaches taken by Dover's EAL Department:

 Using a list of codes for error-type identification, encouraging the learner to work out for herself how to correct each specific error.

- Alerting the learner to just the location of errors, and letting the learner do the rest of the work.
- Selecting only target items for correction, based on their importance to the task and their frequency.
- Collating whole-class common errors and using these as a resource for teaching, quizzes and competitive correction games in the next lesson.
- Conferencing in real time, or using other technology, to initiate a learning dialogue on the work, through comments and replies.
- Using screencast recordings in which the teacher talks through the work line by line and shares the recording with the learner.

The list does not end there by any means; and with today's resources, there are all sorts of creative options at our disposal when we respond to written work.

We could, moreover, flip the whole issue on its head and prioritise what happens *before* the writing begins. Prevention is better than cure, and one of the most powerful errorpreventative techniques we can employ is something called *frontloading*, where we seek to pre-empt the errors before they are committed, by priming the learners carefully with the key language features they should focus on, before they set finger to keyboard.

So, to correct or not too korrect? Perhaps yes, correct, but not too korrect.



Students increasingly use Systems Thinking to understand the interconnectedness of Sustainable Development. Here, Middle School students on East Campus, model systems thinking in the UWCSEA-developed Social and Environmental Entrepreneurship Development course.

# DEADLINE 2030

Embedding education for sustainable development in our learning programme

### By Nathan Hunt, Director of Sustainability, UWCSEA

As outlined in the first article in this series (Dunia, December 2017), which looked at the conceptual framing the College has adopted in order to more purposefully meet its mission, for UWCSEA making education a force to unite for 'Peace and a Sustainable future' is now aligned closely to the five pledges of the UN Sustainable Development Goals. Our adopted definition of "Well-being for all within the means of nature" sums up our aim. But if these grand aspirations are to be more than just mottoes on the walls and are now the clear purpose of each day at the College, how do we embed them within our education?

### Building blocks for innovation

Sustainable Development is not a new concept and for a long time has been taught explicitly in many parts of our curriculum: the Grade 5 Exhibitions, in Middle School Humanities, and in (I)GCSE and IB subjects such as Geography and Economics. However the UN's educational research<sup>2</sup> over the last 20+ years, has shown that to be effective the concept must be integrated into all areas of the curriculum, and embedded in the operations of the school itself.

The building programmes of the last 10 years provided the College with many opportunities to address both operational targets (to be discussed in a later article) and to enable our facilities to contribute to the education of our students. The K-12 curriculum articulation project, begun in order to ensure our education was enabling us to fulfil our mission, has likewise presented a unique opportunity for us to map and embed concepts and skills related to sustainable development through all five elements of our Learning Programme<sup>3</sup> (refer to the curriculum framework outlined in the article on pages 8-9).

Guided by our Learning Principle that students learn best when they are able to link concepts from one discipline to another, we explicitly and repeatedly refer to these concepts throughout the programme, across all relevant disciplines. Beyond conceptual tagging, this process will in time guide our choice of texts, case studies and the Conceptual Questions that teachers use to structure their teaching of each unit. Instead of being more content to learn, the curriculum becomes more focused on what we want to achieve: a study of basic nutrition in science, for example, becomes an opportunity to look at how we can address the goal to end hunger; a study of romantic poetry becomes an opportunity to reflect on our own attitudes to nature.

### Innovations spark conceptual integration

This conceptual integration is furthered through innovations in our teaching and learning too. The Reggio Emilia approach in Infant School, with its central themes of children being protagonists in shaping the world around them, and the learning environment being a 'third teacher', is fundamentally shaping our pedagogy about Sustainability. No longer will it be seen merely as a top-down process of content to be delivered, but as understanding and practice that our community develops together. In the Junior and Middle Schools our Service programme is becoming more integrated within the academic curriculum as these services form an effective learning context for material taught in class. Whether an Art class learns to design a craft activity from recycled materials for an upcoming service trip to Cambodia or a Grade 2 class works to raise food for their Farm-to-Table unit, this planned integration in our curriculum is not only a real contextualisation of our learning but a means by which we can foil the almost inevitable expansion of our learning programme over time and actually do less, better—an essential outcome for ecological and mental well-being. Likewise in the Middle School SEED (Social and Environmental

Entrepreneurship Development) and Foundation IB courses at East Campus, teachers from different disciplines collaborate to deliver a curriculum that intentionally exploits the fact that multiple perspectives and capabilities are needed to analyse complex issues. The issues that these classes engage with are also those found on our campuses and within our wider community, whether it is reducing food waste in the school canteen or seeking alternative livelihoods for villagers on nearby Bintan.

### Innovating in existing frameworks

The next challenge is addressing how to continue to innovate within the existing structure of subject-based (I)GCSE and IB courses. How do we retain the depth of specific and individual learning that reductionist subjects give our students, while enhancing their ability to connect across disciplines? The World Studies Extended Essay at IB Diploma level is one such innovation that is being rapidly adopted at UWCSEA. It gives students the opportunity to integrate learning from two or more subjects, to ask and seek answers to crucial global questions. At least five students this year are researching environmental sustainability on our own campuses, and others are focused in Singapore and elsewhere.

### Systems Thinking: a key for the future

Underpinning this integrative approach to education for Sustainable Development are two key ideas:

- the need for transferable skills necessary for understanding the interconnected nature of complex issues, and
- the desire to foster deeper personal connections with the issues from ethical, spiritual and emotional understanding.

Alongside the skills in our Learner Profile, there has been a deliberate attempt to incorporate systemsthinking skills throughout the curriculum—an example being the Grade 7 Humanities Unit Sustainability and Systems Thinking<sup>4</sup>. This can be as technically advanced as agentbased modelling or as simple as learning how to ask questions to find a 'bigger picture'. Teachers who have worked with Compass Education<sup>5</sup> have been instrumental in developing these skills and approaches for our community, and our partnership with the Ellen Macarthur Foundation<sup>6</sup> is likewise enabling us to deepen our understanding and implementation of teaching and learning for a complex world.

### Connecting heart to head: from concepts to caring

However, having initially framed Sustainability as fundamentally a human well-being issue and not just about the way we manage resources, we know that it is essential that our learning is more than merely conceptual and practical but emotional too. We have to know with the heart as well as the head. Likewise it must have an ethical underpinning—related clearly to our College values. So while our values and the qualities of the Learner Profile are important in achieving our mission, developing our Commitment to Care is essential if we are to generate a deeper engagement in all our community. Only when all of our learning becomes a Commitment to Care—for ourselves. for others and for our environment will it lead to the positive change that we are striving for. Much work is needed on developing the intuition that these three strands of care are intimately connected to each other and our well-being: that what we do 'for others and for the planet' helps us build stronger relationships and a sense of meaning in our lives, as well as offering us opportunities to experience deep engagement, positive emotions and a sense of achievement. These are the PERMA essentials of individual well-being, originally outlined by Martin Seligman in his much admired 2011 book *Flourish*<sup>7</sup> and backed up in numerous studies since.

Articulating this 'keystone' quality of Commitment to Care has been central to the writing of the K-12 Service and Personal and Social Education curricula at the College. We are beginning the process of integrating it, just as we do the concepts for Sustainable Development, throughout the rest of learning programme.

Given the essential need to develop this quality, it is perhaps not surprising then that we see a growing interest in methods such Mindfulness, Cognitive Coaching and Reflection at the College. These allow us more moments of pause and metacognition, not only to question our own thinking but to develop a greater awareness of our own emotions and choice of actions and language. These are, fundamentally, tools to improve relationships—with ourselves, others and our environment. They are also the tools, according to Harvard School of Education<sup>8</sup> and many others, that we so badly need, not just for a better world but for success within any field.

If we are to meet the huge ambition of achieving the UN Sustainable Development Goals by 2030 (and to understand the urgency, don't forget the UWCSEA Class of 2030 is currently in K2) then we need to harness all the talents of our caring and skilled thinkers for this mission.

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- https://perspectives.uwcsea.edu.sg/points-ofview/sustainability-and-systems-thinking
- <sup>5</sup> http://www.compasseducation.org/
- <sup>6</sup> https://www.uwc.org/ news/?pid=38&nid=46&storyid=407
- <sup>7</sup> Seligman, M. E. P. (2013). Flourish: A visionary new understanding of happiness and well-being.
- 8 https://mcc.gse.harvard.edu/high-schoolcampaign

### Wake up

This probably seems like a sleep-in to our day community ...



### Breakfast

Breakfast check-in at Santai is compulsory. We go directly to lessons from there.



### Lights out!

Younger students go to bed earlier, however in Grade 11 our main lights go off at 10.30pm, and reading lights at 11pm. WiFi curfew also starts ..



UWCSEA is unique in the UWC movement in that our student community is predominantly day students. But, true to Kurt Hahn's belief that the experience of boarding with other young people from around the world was at the heart of UWC's philosophy, the residential communities on Dover and East Campus are often referred to as the 'beating heart' of the world's largest UWC. This reputation is due in large part to their overwhelming enthusiasm for, and extensive involvement in, life at the College. While they enjoy opportunity created by proximity, the individuals in our residential communities are all selected on their commitment to the ideals of the UWC movement. They bring a broad range of

# A DA THE LI A BOA

# Relaxation and organisation

Hang out with friends, get ready for the next day, extra study, make a snack, read ... also, if you're in Grades 8-10, hand in your device at 'technology curfew'.



### Study time

Homework, prep, call it what you will, every weekday except Tuesday, Grades 8 and 9 are in the 6th floor Common Room; Grades 10 and 11 are in the Kishore Mahbubani. Library; and Grade 12 in their own rooms. On Tuesdays, if you're up to date with your school work, you can join a community activity with your 'boarding family'.





### School day 8am-3om

Tampines House is 'out-of-bounds' during the school day, unless you're in Grade 11 and 12 and have a 'free' in the last timetable block (1.45–3pm).

# After school activities 3-4.15pm

If you don't have an Activity after school, it's a dash back to Tampines House for afternoon tea before it disappears!

outlooks, experiences and narratives to their residential communities.

Living in boarding is different from living at home. On the one hand, our students are with their friends almost all the time, and they have the chance to build unique relationships that stretch into adulthood. On the other hand, they have to accept norms, values and expectations that serve the needs of the whole boarding community, some of which are quite different to home. To provide a secure and supportive environment, routines support the well-being of all.

*Dunia* followed Kirti Lamba, a Grade 11 Boarder from the USA, to find out what a school day in the life of a Tampines House boarder looks like.

# YIN FE OF RDER

### Dinner 6-6.45pm

Our themed dinners are another way for us to share our culture—through that most important of mediums, food. (Food is a major preoccupation for boarders!)

### Free time 4.15-80m

AKA, touch base with our houseparent, hang out with our 'boarding family', study, make a snack in the kitchen, collect our laundry, or even message our parents. We can go off-campus if it's pre-approved—Grades 8 and 9 can go up the road to the Hawker Centre or Fairprice, while the rest of us can venture farther afield.







# Intentional Service Learning in the Primary School THE WHY, WHAT AND HOW

By Alice Whitehead, Grade 1 Teacher and Primary School Global Concerns Coordinator, and Geraldine Brogden, Grade 4 Teacher and Primary School Service Coordinator, Dover Campus

'The Starfish Story' tells the tale of a young boy who takes action to bring about positive change in his environment one small act at a time. In the story the boy is busy throwing some of the hundreds of washed up starfish back into the ocean when he is approached by a passerby who asks him what he is doing. The child replies that he is helping the starfish and putting them back into the ocean where they are safe. The man laughs and tells the boy not to waste his time as his small actions will not make a difference. The little boy picks up a starfish and tosses it into the ocean and says to the man, "I made a difference for that one."

This story inspired our recent Starfish Exhibition—A Celebration of Primary Service, which gave our Primary students an opportunity to pause and reflect on the Service they have been involved with over the course of the academic year, through College and Local Service activities and the Global Concerns (GC) programme. Reflection is essential to the Service Learning process. As Catherine Berger Kaye, an international Service Learning consultant states, "Service is not Service Learning until the reflection and sharing takes place." Renowned educational reformer John Dewey also believed that "we do not learn from experience, we learn from reflecting on experience."

The exhibition provided students time to consider the impact of their Service involvement, whether that was helping in the gardening community, visiting the elderly at St Andrew's or raising awareness and funds for one of their many GC projects. The intention was that learners would recognise the impact of their contributions, and understand that many small acts combined can have a large impact, creating positive change in the world around them.

### The importance of Service Learning (Why)

Service has been an integral part of our College since our beginning. In fact, other educational organisations often look to UWCSEA for guidance when developing their programmes. Learning through Service provides a values-based and holistic experience for students and is one of the five core elements of our Learning Programme, together with Academics, Activities, Outdoor Education and Personal and Social Education. For many parents and educators, our commitment to Service is one of the traits that sets UWCSEA apart from other international schools.

It is becoming increasingly apparent that today's society needs a dramatic shift in order to cope with global challenges and the uncertain future of humanity and the natural world. The Sustainable Development Goals (SDGs) are a collection of global goals set by the United Nations, covering urgent social and economic development issues. These goals call for a transformation of the way in which the world addresses key

issues such as poverty, health, education and climate change by 2030 (the year that current K2 children will graduate from UWCSEA). As the saying goes, children are our future, which leads to the question—what do schools need to do to equip children and young people with the drive, desire and skills to bring about positive change in the world? [Read more about how the SDGs are being embedded across our curriculum on pages 12–13.]

Service Learning offers a way for students to work in an experiential manner to develop the qualities and skills that will motivate them to participate as active and successful citizens throughout their lives. Catherine Berger Kaye defines Service Learning as "guided or classroom learning is applied through action that addresses an authentic community need in a process that allows for youth initiative and provides structured time for reflection ... and demonstration of acquired skills and knowledge".





### Defining Service Learning at UWCSEA (What)

Whilst our learners have always taken a significant amount of Service action, UWCSEA's written Service curriculum was developed as part of the Curriculum Project. This deliberate approach has embedded Service Learning into day-to-day classroom experiences across all grades K–12. Importantly, it has become a measurable part of the learning programme we offer, with Standards, Conceptual Understandings and Benchmarks applied in the same way as for the academic elements of the Learning Programme. [For more information on the UWCSEA curriculum, please see pages 8–9.]

**UWCSEA Service curriculum standards:** 

- Awareness: By developing awareness, qualities and skills, individuals can become determined global citizens who recognise their ability to enact positive change.
- Sustainable Development–Systems Thinking: Individuals and groups can plan to engage effectively in the sustainable development of local and global communities.

 Taking Action—Being a Changemaker: By taking informed, purposeful action, individuals and groups can act as changemakers, contributing to the sustainable development of local and global communities.

A key resource for creating the Service Standards was Catherine Berger Kaye's 'Cycle of Service Learning' which describes how the learning is not only based upon the act of Service; rather it is also in being aware, thinking critically to prepare for Service, taking informed action, and finally reflecting upon and sharing experiences. Informing the process of writing our curriculum, Systems Thinking enabled us to look at the overall curriculum, rather than at discrete parts, to understand and make explicit the interconnectedness and relationships between the elements.

### Service Learning in the classroom (How)

Implementing the Service curriculum is ongoing and we continually review the intended learning outcomes to optimise their impact. For example, we recently reconfigured the Grade 1 Lion Befrienders Local Service to enable students to be involved in information gathering and decision making by taking a systems thinking approach to planning the activity.

Grade 1 Lion Befrienders Case Study:

- Awareness: Prior to the visit interview questions were developed and a small group visited the centre in order to meet the residents and gather information to help decision making and planning.
- Sustainable Development–Systems Thinking: After the
  visit the students compiled and discussed their findings,
  which they then shared with their classes. From this, and
  students and teachers worked together to plan activities
  going forward.
- Taking Action—Being a Changemaker: Grade 1 students regularly visit the Lion Befrienders centre, using the plans

they created as a guide. Students then reflect individually, shared their reflections with their families (via Seesaw) and with K2 students to provide inspiration and encouragement.

Each grade-level team is in the process of analysing the Conceptual Understandings and Benchmarks so as to determine how they can be further integrated into the students' learning. As this takes place, the complete spectrum of Service Learning will be fully embedded into our programme.

Service Learning is a key element of the UWCSEA Learning Programme, and is crucial for us to achieve our mission of education as a force to unite people, nations and cultures for peace and a sustainable future. This is perhaps best explained by students; such as Finn in Grade 1, who had this to say about his involvement in Service: "Helping

people makes them happy. And that makes us happy. And that makes the world a better place". The starfish story of UWCSEA.





# C R A







"Handball is analogous to the Dover experience ... its very premise is working tirelessly to cross divides and transcend borders. Waiting in line [to play] taught us patience and respect, scraping our fingers to return shots taught us sacrifice and tenacity, and aiming for the top of the grid had a funny way of illustrating that ambition can never exist without collaboration.

Class of 2018, our version of handball will be the stuff of legends ... Our version of handball is special because we play it with smiles on our faces. Whether in applying to colleges or suffering through exams, we have done it with an unwavering sense of humour—we take ourselves lightly and our purpose seriously.

Never forget this place and never forget each other. Never forget the friends you've made, and in particular, never forget the friends we've known the longest and owe the most to—our parents.

Class of 2018, we are products of the teachers, families and friends, who have shown us how to learn, how to teach, how to serve, how to make mistakes, and how to bounce back. Dover Class of 2018, keep playing handball, don't forget to call your mom, and don't grow up too quickly. Thank you, I love you all, and congratulations."

### Arinjay Singhai '18

Former Student Council Chair and Class speaker



"There's a ... saying of Dr Martin Luther King's which President Obama had stitched into the rug of the Oval Office ... and I hope you will stitch it into your hearts and carry it with you. 'The arc of the moral universe is long, but it bends toward justice.' ... There are two ways to live our lives. In hope or in fear. I'm here to tell you that hope is the right choice ... And remember—even when you can't see the bend in the arc of moral progress—it's still there."

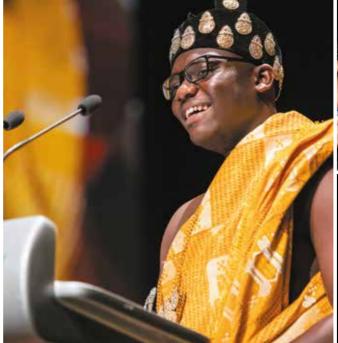
### Ros Wynne-Jones '89

Journalist and Dover Graduation guest speaker











575

students



"I think you'll realise as you get older ... that you need a focus. You need something to keep you founded when the world tries to knock you off of your kindness and your empathy. You need ... a mission that directs what you do every single day ... that brings out—in the brightest and fullest ways—exactly who you are ... So graduates, I want you to remember ... connect who you are to what the world needs the most. And ... fight for it hard."

### Josh Tetrick

Founder and CEO of JUST and East Graduation guest speaker

"... Individual stories at East can never be told without mention of the friends we made ... Our friends made our time here memorable by ... challenging us to be better, and being with us during the torrid times ...

For some of us, East was where the virtue of empathy clawed its way into our hearts, developing in us a genuine concern for others, where ... putting a smile on the face of others, meant more to us than even our own happiness ...

East was filled with an enormous support system of adults and young people ... I'm sure, we can all attest to the matured minds we now have—nurtured in a dynamic community existent without prejudice, and with respect for your points of view ...

To the class of 2018, we did it ... Today is the turning point ... that has the propensity to shape the course of our lives as we're being ushered into entirely new experiences ... Go on to make a mark on the world through the force of your own ideas, personality, resources and desire. And, [when] asked what high school you went to, you can say 'I went to UWCSEA East ... which opened my heart, opened my mind and finally opened my eyes'."

Nana Kwame Nyarko-Ansong '18 UWC NC scholar from Ghana and Class speaker **53** 

scholars

countries



### GRADUATING SCHOLARS

Scholars add to the diversity of UWCSEA by sharing their traditions, community, culture, and stories with fellow students. For a scholar, a UWC educational experience will open doors to once unimaginable opportunities; giving them a chance to take their dynamism and commitment to new levels, personally, socially and globally.

Gifts to the College through UWCSEA Foundation have helped contribute to the growth and development of our scholarship programme. This year, 53 scholars were part of the College's 2018 graduating class. Here several share how a UWC experience has impacted them.

### Emiliana, Chile

"UWCSEA taught me that wherever we go, it's important to be respectful of communities and teach ourselves to try to understand how it works. Even if we are moving back to our country. Societies are composed of people, and people are constantly moving, thinking, changing."

Emiliana is taking a donor-funded gap year to Chile where she will work in schools. She then plans to attend university in South America and contribute to Chile's future development.

### Komil, Russia

"Service has had the biggest impact on me. Working closely with mentally challenged people and assisting them in developing motor skills through drum therapies helped me realise that happiness is not hidden at the top of a Forbes list or under the seat of a Lamborghini—it is all here; allowing you to think, walk, talk, be understood and accepted, learn and improve."

Komil has a number of scholarship offers to study in the USA. His goal is to be a teacher and, one day, to open a UWC in his hometown of Kazan.

### Hwan, Malaysia

"Before, I used to live in fear of the future and constantly worry about where I would end up and what I would do. However, I have come to realise life is beautifully unpredictable. I have developed a bolder approach to life and learned to embrace uncertainties, step out of my comfort zone and seize all opportunities that come my way."

Hwan has received a scholarship to continue his studies in the USA.

### Karma, Bhutan

"UWCSEA was not like any other educational institution, but an entire world in one place. It allowed me to try new things, push my limits, have a balance between academic learning and interests, and discover a beauty and happiness I had not experienced before."

Karma has received a scholarship to study nursing in the USA. Before that she will take a donor-funded gap year to set up Initiative for Peace in Bhutan. Her dream is to return to Bhutan and establish a mobile midwifery service for rural areas.

### Rojay, Jamaica

"One experience that stood out was Project Week, when I visited Cambodia and was able to visit the Khmer Regime Museum and the Killing Fields. Being able to experience that was eye opening and gave me the voice of action to speak about world issues that extend beyond my context. No issue is too great, or too little, for us to speak on and get involved in any way possible."

Rojay has a number of scholarship offers for the USA and Canada. He plans to return to Jamaica and enhance public health services.

### Vitoria, Brazil

"I never imagined the idea of 'global citizen' would be something so real and inside of me. I will always feel proud of my Brazilian origins, but after my experience at UWCSEA, I do not feel that I belong to just one place."

Vitoria has a scholarship to Lake Forest College, USA to study International Relations and History. Before that she will take a donor-funded gap year to work in a school in Nepal.

### **FUND A FLIGHT**

Gifts through the UWCSEA Foundation positively impact our scholar community in many ways. While a UWCSEA scholarship includes flights to and from Singapore, it does not pay for family members to fly in and celebrate Graduation.

The Fund a Flight programme brings scholars and their family together for this momentous occasion. This year, thanks to the incredible generosity of our community, 19 scholars in the Class of 2018 graduated with a family member by their side.

"Since I first arrived here five years ago, no one in my family has seen where I live, what I do, or met those that have taken care of me. So my graduation was a very exciting experience for us all. It was their first time flying too.

We have no words to describe how thankful we are. This kind support has warmed our hearts ... we will always remember it."

Mey '18, 5-year Cambodian scholar



### FLOURISHING PEOPLE-IN-PLACE

### Understanding the impact of Outdoor Education at UWCSEA

By Dr Christopher Wolsko, Associate Professor of Psychology, and Dr Michael Gassner, Program Lead, Tourism, Recreation, and Adventure Leadership, Oregon State University—Cascades

To live a life rich in authenticity, compassion and positive emotional experiences, leading psychologists have concluded in study after study that maturing beyond egocentric preoccupation is essential. Most recently, this has been demonstrated in the sustained pivot of *positive psychologists* (Seligman & Csikszentmihalyi, 2000) toward the cultivation of intrinsic motivation, social concern, and various character strengths and virtues. The UWCSEA qualities and skills, identified as central to students' development as lifelong learners, were in part inspired by this work in education and psychology.

At the same time as these developments have emerged in the positive psychology movement, research on human health and wellness is increasingly examining the importance of our relationships with the natural environment. Theodore Roszak is a seminal author in the emerging field of ecopsychology. He argues that a complete portrait of human flourishing must move beyond the personal and the social, to understand how we can meaningfully connect with the natural environmental which ultimately sustains us. "If ecopsychology has anything to add to the Socratic-Freudian project of self-knowledge, it is to remind us ... there is more to know about the self, or rather more self to know, than our personal history reveals. Making a personality, the task that Jung called 'individuation', may be the adventure of a lifetime. But the person is anchored within a greater, universal identity. Salt remnants of ancient oceans flow through our veins, ashes of expired stars rekindle in our genetic chemistry." (Roszak, 1992, p. 319)

In support of Rozsak's argument, the last 10 to 15 years have seen the development of a robust research literature on the diverse mental, behavioural, and physical health benefits of exposure to and engagement with natural environments. This includes anything from passively viewing nature photographs

or sitting in an office with views of green space, to the decidedly more active undertaking of outdoor activities or even environmental conservation projects.

Among the positive benefits of contact with nature are an increased capacity for directed attention, increased positive emotional experiences, reduced anxiety and depression, and reduced stress and stress-related illness. In the longer term, there is increasing evidence of positive impact on chronic illness, disease and longevity. In addition, exposure to natural environments positively influences health by providing appealing locations for engaging in physical activity and social interaction, and by contributing to a sense of feeling connected with the natural world in a personally and culturally meaningful way (for an overview, see Hartig et al., 2014).

It is no coincidence that this evidence is emerging when, for the first time in history, most human beings live in urban rather rural environments (UN, 2009)—a trend that is only predicted to accelerate. While offering advantages from a number of economic and political perspectives, these rural-to-urban demographic shifts can also have negative consequences. For example, generally higher levels of mental illness, including anxiety and depression, are associated with urban living (Goodwin & Taha, 2014; Lederbogen et al., 2011; Peen et al., 2010; Wang, 2004). Some researchers link lack of exposure to natural environments to this and other concerning health outcomes, and argue that the lack of safe and meaningful access to green space constitutes a major public health issue (Bratman et al., 2015). Thinking locally, Singaporean policy has long been challenged and inspired by the tensions between urban development and the preservation of green space (Tan et al., 2013), and is a leader in creating greener urban environments.

### Embedding qualities and skills through outdoor education

And so a review of the literature points to UWCSEA's emphasis on embedding challenging experiences in the



Outdoor Education programme in order to deliberately encourage the development of the UWCSEA qualities and skills placing it at the leading edge of thought on education and optimal human development.

However, in an effort to better understand the outcomes of students' outdoor experiences, UWCSEA partnered with Oregon State University for a longitudinal study of students' annual outdoor expeditions. Specifically, the research examines the extent to which the expeditions in Grades 6, 7, 8, 9 and 11 contribute to the development of the qualities and skills of the UWCSEA profile. Many components of the profile (e.g., resilience, creativity, self-awareness) correspond directly with the traits and abilities identified by contemporary psychological research as predictive of long-term achievement and life satisfaction (Peterson & Seligman, 2004).

It is hoped that the findings will help UWCSEA identify current pedagogical successes while helping to refine the Outdoor Education programme, and to modify or adapt programmes and/or teaching techniques in order to target specific qualities and skills that the programme may not currently reach. The data will also be shared with wider academic and educational audiences in order to illuminate effective techniques for cultivating qualities and skills during the formative years of adolescence. Additionally, the diversity of the student body at UWCSEA means that researchers may be able assess any cultural variability in the impact of outdoor education.

The study is currently in its third year of data collection (with at least three years more to go), utilising focus groups, individual interviews, and surveys to examine a variety of research questions. Generally speaking, findings to date demonstrate that expeditions clearly have a positive impact on students' development of the UWCSEA profile qualities and skills. In addition, increases in *flourishing* (a prominent assessment of psychological well-being), *grit*, and *connectedness to nature* have also been observed from pre- to post-expedition.

### Positive impacts in a complex world

Three of the most common profile traits cultivated on expeditions have been *commitment to care*, *resilience*, and *collaboration*. Commitment to care has manifested as 'caring for one's peers in challenging circumstances' and as 'concern for the

environment, inspired by natural beauty and/or conservation projects.' Quotes from student interviews illustrate this: "During the week, I made sure that everyone was okay and assisted them if they needed. We all got quite hungry and I shared it all with people since I knew that we were all tired and in need of some energy" and "The people are amazing and the nature is beautiful ... It has inspired me to make a better urban area, more integrated into society and nature ..."

The expeditions also compel students to persevere in the face of physical and psychological challenges. For one student, such resilience was demonstrated through "... stepping out of my comfort zone. The trip gave me many opportunities to step outside my comfort zone and helped me get into the mindset of embracing a challenge or trying something I normally wouldn't."

Finally, cooperation is fundamental to the success of most outdoor expedition activities. Students appear to recognise and embrace this and have had many positive experiences working together on challenging and ultimately enjoyable tasks. As one student reports, "I had to be collaborative with the people in my kayak group, and support them when they were tired, and I cheered them on. I also had to be collaborative with my tent-mates and other groups when cooking ,for example. I also became more trustworthy of my tent-mates and friends ..."

If Outdoor Education is to be relevant generally, and worthwhile at UWCSEA specifically, it must impact students in a positive way that is congruent with the reality of a highly complex and dynamic world. Our analyses to date indicate that the Outdoor Education expeditions at UWCSEA are accomplishing this. Specifically, expedition experiences are developing students' capacities to act more cooperatively and more independently, to have the confidence to make more of their own free choices, to act with care and concern for others in their social and natural environments, to seek understanding in authentic learning environments, and to thrive in uncertain, complex, and rapidly changing contexts.

We look forward to updating the UWCSEA community further as the study progresses.

For the full list of in-text citations, read the story online at: https://perspectives.uwcsea.edu.sg



### Dover Campus GYMNASTICS CENTRE

At UWCSEA, all Physical Education lessons include units in Gymnastics. Students of all ages spend time in the Gymnastics Centre, where they are guided by specialist Gymnastics coaches to develop their skills on the trampolines, vaults, horizontal and uneven bars, beams, rings, tumble track and rebound floor.





### THE SKY'S THE LIMIT

### UWCSEA supports transformational education for refugee youth

From Syria to South Sudan to Myanmar and beyond, the plight of refugees continues to demand attention as one of the greatest humanitarian crises of our time. The numbers are daunting, with the UN estimating there are 65.6 million forcibly displaced persons worldwide. Among them are 22.5 million refugees, 50% of whom are under 18. The resulting educational needs are staggering: only 9% of refugees in low income countries are able to complete secondary education, and across all refugees a mere 1% go on to higher education.

In 2016, two UWC alumnae and then staff at UWC International, Polly Akhurst (UWC Atlantic College '06) and Mia Eskelund Pedersen (UWC Mahindra College '07), began learning more about the tremendous gap in secondary education for young refugees while working on the UWC Refugee Initiative. During the global UWC Congress in October that year, they heard the UWC Syria National Committee's story of having to turn away more than 300 UWC scholarship applicants annually. With UWC educators, alumni, volunteers, and staff from around the world gathered in one place, Polly and Mia began talking with people about how it might be possible to address the secondary education needs of refugees.

A serendipitous meeting with UWCSEA East's Director of Teaching and Learning, Stuart MacAlpine, offered hope. When Polly and Mia asked him about whether he thought it might be possible to develop a secondary curriculum for refugee and displaced youth, Stuart quickly responded "yes". UWCSEA's multi-year curriculum articulation project and ongoing research has yielded a robust K-12 concept-based curriculum and rich expertise in curriculum development among our educators. As one of UWCSEA's curriculum experts, Stuart knew it was in fact possible to devise a tailored curriculum to meet the particular learning and community needs of young refugees.

Out of Mia and Polly's passion and vision and these early conversations, Sky School was born. Stuart serves as the organisation's pro bono Director of Education, leading the development of the curriculum and modules for a full 1,000-hour high school diploma.

Additional UWCSEA community members joined the cause as well, with former East University Advisor (Dover University Advisor from August 2018), Shruti Tewari, volunteering as Sky School's Head of Partnerships, supported by University Advisors Nikki Dinsdale and Patrick Desbarats. Numerous teachers have volunteered to support curriculum development. A Sky School student Focus Group was established at East in 2017 and quickly gained momentum. The students meet weekly, with Stuart's guidance and the leadership of Grade 10 students Tomoko Miyakoshi and Philippa Baxter, to help research the needs of refugees, learn more about social entrepreneurship and project management, and support the thinking about the curriculum model.

### A blended model

It was essential to find a model that would allow refugees, regardless of location, to access Sky School's courses. After considerable research and exploration, they determined a blended model (online and offline) would offer flexible access without sacrificing the beneficial learning and engagement that comes through the classroom. Materials are distributed via a mobile application offered by Aula Education through which students can also participate in discussions and receive feedback on their assignments. In-class activities facilitated by a learning mentor help to deepen students' learning.

In late 2017, a six-week pilot course on social entrepreneurship, based on the work of East's Head of Enterprise and Business, Adam Steele, and aided by a group experienced in working with young refugees and in refugee education, launched with 50 students, aged 16-25. Each week, students completed six hours in person and four hours online. The course was offered in three locations: Amman, Jordan; Kakuma Camp, Kenya; and Athens, Greece. Feedback from students and facilitators alike was overwhelmingly positive, with a course retention rate of 72% and 100% of students saying they would recommend Sky School courses to a friend.



| Sky School Diploma - <i>Prototype Model</i> |  |  |  |   |   |
|---|--|--|--|---|---|
|   | Change<br>Making   | Peace<br>building  | Politics and<br>Economics  | Literacy, Arts<br>and Culture                                     | STEM and<br>Innovation  |
| Module 1                                    | Becoming a<br>Changemaker<br>Developing an<br>Impact Project | Peacebuilding<br>in our<br>Community<br>Conflict<br>Resolution | Global and Geo<br>Politics Politics<br>Making Change<br>in Public Life | Language,<br>Stories and<br>Identity<br>Culture and<br>Expression | Thinking<br>Mathematically<br>Maths for<br>Change                   |
| Module 2                                    | Research and<br>Advocacy<br>Managing<br>Complexity           | Mediation<br>Community<br>Action                               | Sustainable<br>development<br>Circular<br>Economy                      | Public and<br>Political Art<br>Public<br>Communication            | Scientific<br>Literacy<br>Information<br>Technology &<br>Innovation |

### Transformational learning

One of the key principles for Sky School is that the learning be applicable in students' lives and communities, which gives them much greater agency and control in their life going forward.

In asking about the nature of the learning model, Stuart said, "We're finding out what kind of education is transformational immediately—learning that helps students now and also prepares them for the future.

"At UWCSEA, we have the ability to develop transformational curriculum to help make a better world. Through our partnership with Sky School, we can help to offer refugee youth high-quality concept-based teaching and learning in their community."

In addition, the model is scalable so that the learning will be widely accessible to refugee youth around the world.

### Curriculum hackathons

Following the success of the pilot course, Sky School aims to offer all 10 modules of their High School Diploma by late 2019. To complete the required curriculum development, they are convening educators who volunteer to lead and participate in course design 'hackathons' to rapidly develop the individual modules which combine to form the courses.

Ellie Alchin, Head of High School Humanities (Director of Teaching and Learning at Dover Campus from August 2018) and leader of the Peacebuilding course hackathon held 6–7 June at East Campus, describes the hackathon as a "network of passionate and concerned educators from around the world, coming together to fast-track Sky School's curriculum development." In fact the Peacebuilding hackathon would also establish the model for the forthcoming hackathons for other Sky School courses.

This inaugural two-day hackathon included UWCSEA educators, Sky School team members, UWC alumni, experts in refugee education, NGO leaders experienced in peacebuilding, and former refugees. Structured activities facilitated the rapid development of a 10-week/100-hour Peacebuilding module's conceptual understandings.

Peacebuilding course leader and East High School teacher, Louie Barnett, would then finalise the course module for its launch on 25 June 2018.

In late June, UWC Maastricht in the Netherlands, is hosting a second hackathon to revise the Change Making and Social Entrepreneurship course into a full 10-week course, and other hackathons are anticipated later this year.

### UWCSEA community support and opportunities

From teachers volunteering their time in curriculum hackathons, to the student focus group, Sky School has attracted wide interest and support from the UWCSEA community. Not only is the interest substantial, so are the opportunities for the College community.

Teachers are building capacity in curriculum design, and Sky School's model can inform our approaches to blended learning. The collaboration through the hackathons is broadening the College's network of partners with shared values. And there are tremendous learning opportunities for students, whether learning about social enterprises, flexible education models, advocacy for refugees, or working with refugee youth.

Earlier this year, Stuart and student focus group leader, Tomoko, presented their work with Sky School to the UWCSEA Board of Governors, seeking support for a continued partnership.

Anna Lord, Chair of the Board of Governors, had this to say: "When I attended the UWC Congress [in October 2016], Honorary President of the Norwegian Red Cross, Sven Mollekliev's closing words really stuck with me: 'No one can care for everyone, but everyone can care for someone'. When Stuart and Tomoko presented Sky School to the Board, those words came right back to me. Sky School gives us an opportunity to live up to our mission. While so many people are building walls and closing borders, we really need to open our eyes, hearts and minds to the plight of refugees.

Through Sky School, we can help move the focus from caretaking to empowering refugees to realise their potential. Our teachers and students will have opportunities to work with their peers in refugee camps and around the world to design a learning model that is relevant for the world of today. Through collaboration on curriculum, projects and assignments, each can learn from the other. When these young refugees finally realise their dreams of returning home in a post-conflict world, they will be the leaders needed to rebuild their societies. It seemed to us, as a Board, that we had a duty to lend our support to our incredible staff and students who are taking action to make a difference in the world."

Learn more about Sky School at www.skyschool.world.

# **ZERO WASTE** initiatives on East Campus



With only 6% of plastics recycled in Singapore and the rest destined for incineration, addressing the UN Goal 12 of Sustainable Consumption and Production is a key focus of environmental stewardship on our campuses.

Groups and individuals across the College are working to reduce the use of disposables—especially single-use plastics—in our community and taking and promoting meaningful action to reduce consumption and waste.

From the Creative Reuse Centre in Infant School, to the Social and Environmental Entrepreneurship Development (SEED) course in Middle School, to Design and Technology classes, to Global Perspectives Critical Challenge projects in High School, to numerous sustainability-focused College Service groups, students are developing solutions for Goal 12 in and out of the classroom. Sodexo and the Facilities and Operations Department are continuously working to reduce the use of disposables in the canteen. The Parents' Association also collaborate with staff and student groups to minimise event waste.

The extensive efforts touch the entire campus community. Here are snapshots of just some of the waste reduction initiatives at East Campus this year:

### LEAP College Service

The Leaders of Environmental Awareness and Protection (LEAP) groups research and analyse campus challenges, such as waste management, that need sustainable solutions.

**Primary School:** LEAP students implemented packaging-free Fridays in the Primary School, inviting families to send packaging-free snacks and lunches to school. They sold alternatives to disposables such as bamboo and metal straws, beeswax wraps, and recycled lunch boxes. They also captured attention with their 'Plastic is not fantastic' campaign.

**Middle School:** LEAP students focused on composting; applying design thinking, they examined the site and collection process and worked with Sodexo to implement solutions. Students are now designing a home composting collection system; next year, community members will be able to purchase a home compost bin which they can empty weekly at school.

### Residential initiatives

The Environment and Sustainability Committee at Tampines House have raised awareness within the boarding community about disposable plastics starting with a film screening of *A Plastic Ocean* and a beach clean-up at Coney Island. Through discussion (plus some friendly peer pressure), many residents are



choosing not to take away disposables from the local hawker by eating in or bringing a reusable container.

### Zero waste event efforts

**Family Festival 2018:** Parents and Global Concerns (GC) groups running food stalls worked hard to eliminate waste, e.g., coconuts were sold with bamboo straws and then composted. Many GC social enterprises also sold upcycled products.

**Zero Waste Event Supporters** (0-WES, formerly Green Fingers): This Service group collaborates with Operations and local partner Buddha Tzu Chi to develop sustainable waste management solutions for the College and beyond. To reduce waste at school events, they provide and wash reusable plates, cups and utensils supplied by Sodexo.

### College Service upcycling enterprises

**Boomerang Bags:** These changemakers are targeting the consumption of plastic bags, by making a sustainable alternative with upcycled material collected from the community. Through sewing bees, they stitch and assemble reusable bags. Distribution has begun on campus with the vision to roll out Boomerang Bags to the Singapore community.

Circle Enterprise: Through the circular principles set by the Ellen MacArthur Foundation, this product design and consultancy student group tackles linear consumer mentality by upcycling 'waste' materials. This year they created Christmas trees from timber pallets and began upcycling the College's copious Apple packaging material into usable products.

**Tech Tinkers:** Students collect and refurbish used computers and digital tools for use by some of our Global Concerns NGO partners. For example, they supply laptops and cameras to Blue Dragon Children's Foundation in Hanoi to help the organisation bridge the digital divide for the street kids they support.

### The Wasters art activism

This College Service aims to creatively educate and provoke for behavioural change. Students recently 'claimed' the globe in the Plaza, filling it with plastic waste collected on campus, wrapping it in discarded plastic from pallets, and asking "Who are the Wasters?" The provocative display challenged all who saw it to examine their behaviour around waste.

Inspiring and encouraging as these initiatives are, there is no doubt that we a have a long way to go to eliminate unnecessary disposables at UWCSEA. Step by step, we can continue to reduce consumption and incineration of disposables and develop behaviours and enterprises to affect positive, long-term change.

