TANGO EXTRA

Dancing with Words

Senri & Osaka International Schools of Kwansei Gakuin | *TANGO: Dancing with Words* | Volume 14 Number 1 November 2020

Welcome Back to School!

by Janet Jones

Welcome back to a new school year filled with articles from the Tango team. As a team, we are looking forward to creating an array of articles on several topics in the upcoming year. Not only this, but we are investigating finding alternative platforms to post articles, such as Instagram. I, as the new Tango President, feel the need to expand the Tango audience from a few people from the community to as many people as possible. The use of social media and the internet will be a benefit in many ways. For example, students will be able to check out articles wherever and whenever. This will also allow students to keep writing even in the case of the school going back into lock down.

As COVID-19 continues around the world, we members of the school community, must come together (not literally) and put all our efforts into keeping the school environment as safe as possible. So far this trimester, there have not been any cases reported within the school but this does not mean we can relax and stop taking serious precautions.

It's not that easy. After being back at school for two months, I have noticed some issues surrounding the social distancing rules put in place throughout the school. One main issue is that there is not enough space for students to stay socially distanced while participating in classes and walking down the hallways. Not only this but since the cafeteria was originally always packed with people and now the amount of seats has been reduced, many students are forced to eat in their homerooms. In addition, the precautions put on school activities have negatively affected students' passion for participating in school activities, since SOIS students are the main participants in these activities. Many students felt that lunch periods and after-school was when they could talk to people who they usually would not be able to, but now they feel as though they are boxed into only socializing with the same group of students.

As a student and part of the school community, I feel that school has lost some of its overwhelming but energizing atmosphere, with students not being able to spend time with friends during lunch and after school. Sometimes, I feel less motivated to go to school, knowing that there is less to look forward to because of the cancellations of many events. On the other hand, my peers and I are ecstatic to be able to study at school alongside each other again. Although people have mixed feelings about quarantine, I think we can all agree how great it is to be surrounded with the people we like again.

The Tango team and I are excited to produce a year filled with amazing articles, expanding the audience so anyone can have access to articles and another year of wonderful but safe memories.

Superheroes of the Resistance

The two schools together celebrated being back to school with Fushigi week.

There was tons of creativity and a smile behind each mask.

As we continue our resistance against COVID-19, let's make sure to have fun, even as the battle continues.

Photos by Dave Algie

More Great Content Inside…

新しいSISの先生にインタビュー -菊池康貴先生-

ムルティ　タニシカ

今回は、4月からSOISにいらした菊池康貴（きくちやすたか）先生にインタビューさせていただきました。学校が再開して数週間しか経っていませんが、菊池先生は、楽しい授業の進め方と、様々な分野での活躍から生徒から人気を得ている先生です。

私は菊池先生にいくつかの質問をさせていただき、本当に勉強になる答えをいただきました。みなさんも是非これを読んで歴史に対する新しい考え方を身につけてください。

Q: SOISでユニークだと思うところ、また他の学校とは違って気に入ってるところはありますか？
A:「僕が以前勤めていた学校では、365日中、360日毎日部活をする生活で、顧問をしていた先生方、部員のみなさん、誰もがほぼ休みのない状態で活動していました。この学校では良くも悪くも学校や部活が全てじゃないということを理解しているというのがユニークで気に入っているところです」と答えてくださいました。また、「他の学校では教員が家の事情で休むことが難しかったですが、SOISでは教員の協力とサポートで子供や家族の面倒を見ることも優先してできます」とおっしゃっていました。

やっぱり大きな家族みたいでいいなと私も共感できるところたくさんありました。

Q: 先生は日本史を研究してらっしゃるとお聞きしたのですが、なぜ日本史に興味を持たれたのですか？
A.:「父方の祖父が歴史について詳しくて、戦争を体験している時代の人だったのですが、僕が大きくなったら一緒に歴史について学んだり、戦争の体験を教えてあげたいと思っていたみたいです。ですが、僕が幼い時に亡くなってしまいました。その事実を亡くなった後に知った僕は、その後母方の祖父とともに歴史を学ぶなどして、京大を目指すようになりました」と心温まる理由を話してくださいました。

プライベートな話にも関わらずお話ししていただいて、ありがとうございます。

Q:社会や歴史などにあまり興味を持たない生徒もいますが、みんなに興味を持たせるためにできることはあると思いますか？あればそれはなんですか？
A:「歴史に興味を持たせようとするには、事実だけを伝えることは間違っていると思います。それぞれの時代の社会のシステムを理解し、価値観の違いを理解をしたところで初めて出来事を知ることにも意味がある思うからです。」

菊池先生のお話しで私がとても面白いと思ったのが、この価値観の話でした。先生がインタビュー中におっしゃった例をあげたいと思います。
「例えば、今よりずっとずっと前の日本でのお話しです。兄弟二人が道を歩いていたとします。道路側を歩いていた弟が悪者にその場で殺されたとします。その時に兄は、裁判所へ行き、僕の弟を殺した人を捕まえて牢屋に入れてください。とお願いしました。しかし、そこで兄は、こう言われました。「ここではあなたが罪を犯しました。」みなさんこの反応にびっくりしません？でも実はこれは昔の日本では全然あり得ることなのです。なぜならその頃は自力救済の考え方でしたから。裁判所の論理で行くと、兄は裁判所にくるのではなくて、その場で弟を殺した人を殺すべきだったのです」

というように、価値観、考え方、社会のシステムなどによりどの時代に何が許されていたのかが変わってきます。このようにして、時代ごとの価値観や社会システムを理解することで歴史も面白くなるんだなと菊池先生は教えてくださいました

10th Graders Find Out What PSATs Are All About

by Rena Kawasaki

The OIS 10th graders took their first PSAT test on October 14th, 2020, taking their first step in preparing for the 2 years of Diploma Program ahead of them. Going into the test, I didn't know what to expect in regard to anything: the testing conditions, the breaks, the atmosphere. I basically went in not knowing anything. So to help myself and others who take the test next year, here is what the 10th graders who finished taking the test for the first time thought and would advise for upcoming test takers.

Questions:

How much did you prepare and were you satisfied with the amount of preparation you did?
I didn't prepare but I was satisfied with how much I knew.
I didn't prepare but I was content with my knowledge in the test
I went to a Korean Cram school for PSAT last year and I felt ok with how much I knew.

Was there any aspect of the test that surprised you?
The reading section was harder than I thought because I became tired. The time for the section was also shorter than I expected.
The math section was easier than I thought.
The reading section was so long.

What did you enjoy the most?
Break time.
Snacks.
The feeling of finishing the test.

What did you despise the most?
The whole test.
The temperature of the room (It changed a lot)
The reading section.

What is easier or harder than you thought it would be?
Easier compared to my practice test.
Easier than my expectations.
Neutral because I never took PSAT before.

Would you change anything to prepare for next year?
Study a week before the test.
Study more.
Look at the practice test and knowing the questions.

Any advice to students taking it next year?
Treating like a MAP test.
Don't worry too much about it.
Worry about the reading section.
Time management is crucial.
Skip the questions you don't know; you won't be penalized.

We hope these answers will help you and good luck to future test takers!

Is the IBDP Anything More than Soul-crushing Madness?

by Tanishka Murthy

We've all heard rumors about how soul-crushing the IBDP is for almost every student that attempts it, but I wanted to hear it from the IBDP students themselves this time. Especially those whose soul crushing has only begun…..okay I'm going to be honest here, I still have a year until I start the IBDP and this is the only time I get to mess with my friends in the upper grade for how their souls are being crushed right now so here it goes. Haha.

I asked them about what they thought the most difficult subject at the moment was and their answers differed but perhaps that was because of the level of the subject each of them are taking at the moment. Koki Ogawa, who is currently taking HL Math AA, mentioned that Math is in fact the most difficult, as it requires her to study ahead in order to not get left behind. Ryosuke Okadome mentioned that Japanese A is the most difficult due to the increase of work compared to last year. However on the other hand, Lee Jun Foo said that it's all around the same level of difficulty and it's more about the amount of content increasing.

I was genuinely curious to know whether or not their sleep schedule has changed and if it has, does an increase of caffeine intake have anything to do with it? However, to my surprise, it looks like most of them are getting a sufficient amount of sleep ranging from Ryosuke getting 5 hours to Yoshi getting 10 hours every night. I assumed that all of them would be drinking caffeine in excess due to the increased workload but it looks like I was mistaken. It seems as though there is more consumption of carbonated drinks and chai (tea) than there is coffee. I guess carbonate drinks and chai have caffeine as well, but perhaps as long as we all don't have too much, it's better this way. I was glad to hear that the stress isn't damaging their eating habits too much.

I asked them about how much their lives have changed after the IBDP has started and received the following responses.

Ryosuke said, "It changed me as a person, as I try to manage my time more and be responsible of myself more than ever." Although Yoshi said nothing much has changed for him, Lee Jun and Koki had a different response. Lee Jun mentioned about how he now "has less time to watch his favorite TV shows" etc. and Koki said that she is having to be more "self-motivated" and "inquisitive". Kei Sugae, who is the only person in his grade who is taking the IBDP from SIS, said that he is enjoying his classes more now but he hasn't been able to speak with his SIS friends much.

Lastly, I requested them to advise future IBDP students.

Yoshi: Take subjects you like, not ones you can do or feel like you are going to get a high score.

Koki: It's important to realize that you don't need over a 40 to get into a good university. If you look at the reports by Crimson Education (pages.crimsoneducation.org) the acceptance rate of IB students compared to normal applicants is drastically different. For instance, the normal acceptance rate for UChicago is 7.9% but for IB students it's 60.3%. Don't put too much pressure on yourself, and realize that just by taking the IB you have a leg-up on other applicants.

Lee Jun: Can't give any advice because I'm 3 weeks into DP1, but I guess work hard?

Ryosuke: Although I only just started the IB, my advice would be "Be responsible for yourself", and "Read a lot". It is important to be responsible for yourself because the teachers won't assist you as much as they did back in MYP. You will need to make your own choices, therefore be responsible for yourself by paying attention in class etc. Also, you need to read a lot before starting the IBDP because if you are taking language subjects the amount of reading will increase A LOT. Also, reading many books can help with your writing and set you up for essays, or the final exam where you have to write multiple essays depending on the subject.

Kei: Get a good organizing system and ask a lot of questions. Get used to participating in classes if you're from SIS. If you can, work ahead. Don't make too many plans to hangout with people.

My takeaway from this interview is that choosing your subjects wisely, using your time efficiently and learning how to prioritize is necessary in order to survive the IBDP. It looks like the "soul crushing" hasn't begun just yet, but I wish everyone who is currently taking the IBDP as well as future students, all the best !

Thank you to the 11th graders that took the time out of their busy schedule to let me interview them:)

Calligraphy by Hana Manfred

Taking Care of Your Mental Health

by Kokoro Ishiuchi-Ray

With October 10th recently being World Mental Health Day, and with Covid-19 wreaking havoc on our daily lives, I felt that it was important to address how to take care of your mental health amidst everything that is happening. With school starting −and for me− starting IB has been very stressful, and I often neglect my own needs in favor of studying or doing homework. Here I will outline a few simple everyday tasks, as well as bigger tasks for the weekends, that we can do to unwind, destress, and take a moment to ourselves.

An easy way to take a moment for yourself is to go out for a walk. You could either enjoy the sounds of nature and the outside world or listen to music. Take a few deep breaths and reflect on the past week or so and think about how you could improve yourself. Of course, you don't need to reflect the whole time your walking, you could daydream about whatever you wanted if that helps you unwind. The point is to take time to yourself and let your mind wander rather than being stressed about school work and home life.

Another easy way to destress is to do some self-care, like exercise or a face mask. Exercising releases dopamine and serotonin, which play an important role in regulating your mood. Exercising could include yoga, going on a run, or going on a walk like stated above. Another aspect of self-care is taking care of your skin, and an easy way to do that is by doing a facemask. Although many assume this to be something only women do, anyone can do a facemask regardless of gender. Whether it be a sheet mask or clay mask, taking the time to apply one and wait for it to dry gives you time to relax while simultaneously taking care of yourself physically. I personally prefer an exfoliating mask as they leave my skin feeling smooth and soft, and I feel that taking the time to figure out which type your favorite is is a good way of taking care of yourself.

On the weekends, when many of us have more free time a good way to unwind is to do some cooking or baking. Being in the kitchen requires you to focus on the task at hand, which helps distract from other stressful aspects of life. Not only that but afterward you're rewarded with the fruits of your labor (assuming you followed the recipe correctly). If you choose to bake you could also make something for your friends and family to show your appreciation and brighten someone else's day as well. I find that finding a simple cookie recipe is best as you can make many batches easily while also minimizing ingredients.

Of course, there are many different ways to take care of yourself and only you will know what works best for you. It is important to take the time and figure out what works for you, and to follow through with that task to give yourself a break from whatever stress you are going through. Keep in mind that if all else fails, there are always people around you who would be happy to help.

Trick People's Minds! Sneaky Psychology Hacks

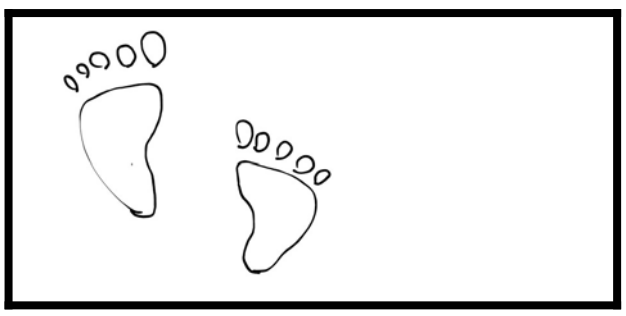
by Hinako Hayasaki

It has been roughly two months since the new school year began. A new school year can mean different things to every one of us. New beginnings, meeting new people, trying new things and starting to get back into reality after six months of online school. You are not the only one if that's still taking time for you.

It is not an easy thing to immediately be back on track after a long summer break. Many of us have not had communicative human interaction for a while, so it can take some time to be in our comfort zone.

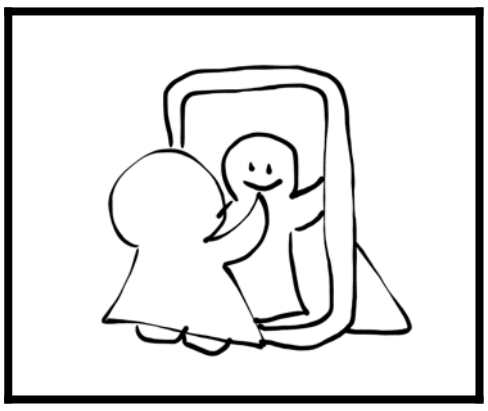
But guess what? I have good news for you! There are psychological techniques that may be able to help you with that. Here are some psychology hacks you can sneak into your daily life from now on:

1. Pay your attention to feet



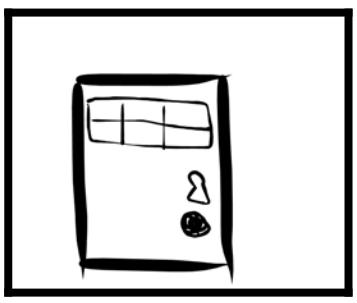
Do you want to know how interested and attentive people are to you? Take a close look at their feet. When you are having a conversation with somebody, and their feet are directly pointed towards you, it means that they are comfortable with you and most likely agree with what you are saying. Contrarily, if their feet are facing someone else or the nearest door, they may be subconsciously disagreeing with you, or even intending to leave. You can even use this "feet language" yourself. For example, if you are presenting in front of a class, keep your stance wide and face the audience. According to Carol Kinsey Gorman, an international keynote speaker, you can engage with the audience more effectively if you walk while presenting.

2. Mirror movements



If you want to get closer to someone, try to subtly mimic their movements while you are talking with them. Humans will favor someone who responds the same way as themselves or sympathizes with their way of thinking. This is also called the chameleon effect. It can help build intimacy and trust between you and the person.

3. Door in the face effect



Being straightforward when asking for something may be the most efficient way of communicating with someone, but it doesn't always mean that it is the best. To use this effect, you first make an unrealistically big request to someone, making them say no to it. Afterwards, you make a smaller request to the same person, which makes them feel obliged to accept it. This may be useful when you are negotiating with others.

Film Reviews

Movie Review: *Wonder*

by Chiharu Nagasaka

Wonder is a film written and directed by Stephen Chobsky. It's a film with noteworthy actors like Julia Roberts and Owen Wilson, along with rising stars like Jacob Tremblay and Noah Jupe.

To put it simply, *Wonder* is an amazing movie. Essentially, it's a movie about a young boy named Auggie diagnosed with a physical ability that gives him facial deformities. Auggie also starts school soon and is forced to confront his insecurities and his fear of judgement.

There are a number of reasons I think make this movie so amazing, but the best thing about this film for me is the characters. The movie is split up into chapters, with each chapter being dedicated to someone within Auggie's life whether it be his friends or family. This detail allows us to see how each character is affected by the problems that occur and how they manage to deal with them. This also allows each character to become so much more relatable as we learn to empathize, relate, and root for all of them.

To add to the wonderful characters and breathtaking cinematography, *Wonder* also delivers themes about self acceptance, family, trust, and living life to the fullest.

The lovable, real characters, along with the beautifully shot scenes, excellent plot, and complex themes everyone can learn from, make *Wonder* such a sweet, enjoyable watch for anyone. There just seems to be something you can learn from this movie no matter how old you are!

Overall, *Wonder* is a spectacular, bittersweet coming of age film about the struggles of a little boy and his family. The movie is also rated G so it's something anyone can watch! It's definitely a movie I highly recommend.

Movie Review: *Hidden Figures*

by Anju Manfred

Hidden Figures (2016) is a dramatized biographical film directed by Theodore Melfi, adapted from the book of the same title by Margot Lee Shetterly. Starring Taraji P. Henson, Janelle Monae, and Octavia Spencer, this film tells the story of the uncredited female African-American mathematicians who played a vital role in John Glenn's groundbreaking orbits around the Earth in 1962. It is a life-changing movie relevant to today's efforts for gender and racial equality.

Based on a true story in 1960s Virginia, U.S, *Hidden Figures* documents NASA's "human computers", who were the brains behind astronaut Glenn's launch. The movie focuses on three of these extraordinary mathematicians - Katherine Goble, Mary Jackson, and Dorothy Vaughn - whose perspectives bring to the screen the months leading up to the launch. However, the movie not only portrays the preparation of the launch. From not being able to attend a briefing because of one's gender, to having to run half a mile from a workplace just to find a colored bathroom, Goble, Jackson, and Vaughn struggle through the extreme injustice of sexism and racism that was present during the 60s.

This film successfully tackles these social issues that still exist today, and brilliantly captures the importance of working to fix these issues, while sneaking in some good jokes, inspiring characters, and catchy beats, all tied together with a meaningful and original screenplay.

Hidden Figures is a beautiful movie, and I highly recommend watching it.

Keeping You App-to-Date

with Dave Algie

We all know what YouTube is, so I am not going to insult anyone by trying to describe this website or the app that goes with it.

What I would like to do is recommend one of my favorite YouTube channels.

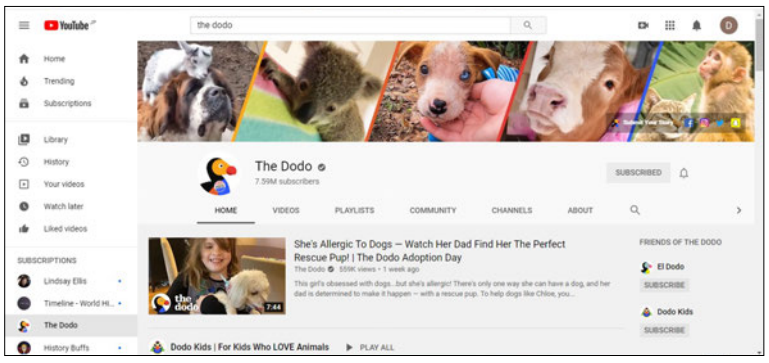
The Dodo is a channel that showcases amazing animals and how enriching their interactions with humans can be, for both the animals and the humans involved.

This channel has hours upon hours of animals being funny, cool and heartwarming.

My favorite videos on this channel are of rescue dogs being adopted into their forever homes. Every lunch hour, in my classroom, I open my laptop, close the tabs on Managebac and Google Classroom, and boot up (This is a technical expression and I am using it correctly) a dog adoption video on the Dodo channel. These are the videos I watch during my lunch break.

Teachers and students who interrupt me in my room when I am watching these videos are often surprised to find me weeping, with tears spilling from my eyes and my lunch dribbling down my chin.

Seeing a frightened, abandoned dog being adopted into a safe and loving home is an important reminder of how much we can give animals and how much they can give us in return.



Baking

with Tomoka Matsushima

Fluffy Souffle Pancakes

Pancakes seem to be one of those foods that stay popular even as time passes. It's a popular item for breakfast, for dessert and for an indulgent snack in cafes. It seems to me, as if it is constantly trending. Even during online school most of you must have seen the miniature "pancake cereal" at least once. My knowledge of pancakes is limited, but I do know that before the pancake cereal, and most likely still, these fluffy and airy "Japanese souffle pancakes" have been a very popular food item. As most of you might have guessed by now, I attempted to make these fluffy pancakes for this edition.

Looking at this picture, I can fully understand why these pancakes started trending. They are mesmerizing and look so fluffy, light and delicious.

https://www.foodandwine.com/travel/restaurants/tokyo-souffle-pancakes-flippers-new-york (Kat Odell, 2020.10.13)

As a disclaimer, mine did not turn out perfect like this. However, they still tasted good and were interesting to make. I followed the recipe, Maple Bacon Japanese Souffle Pancakes, by Gabie Kook, a chef making food and lifestyle videos on YouTube.

Her recipe had an interesting ingredient that I did not expect, I'm not even sure if other recipes include this. Mayonnaise. Though I was hesitant at first, I have heard of mayonnaise being used to make batters creamy so I decided to put some in mine as well. The steps to making the batter were fairly simple, but I recommend having an electric whisk or some sort of device that will help alleviate the tension on your wrists. The egg whites have to be beaten to stiff peaks as that is the big factor in making the pancakes so airy. So, like the recipe stated, I separated the egg yolks and whites, adding most of the ingredients into the yolks, and mixed it. I made the mistake of mixing the flour and egg yolks before adding the milk and it formed a few lumps. I'm not even sure of why I did that, but it didn't seem to affect the end result of the pancakes (I did have to spend time trying to get rid of the clumps). For the egg whites it was just beating them while adding sugar in intervals.

After folding in the egg whites into the yolk mixture and resting it in the fridge, it was time to cook!

The batter was looser than I expected, but it wasn't hard to work with at all. I had fun cooking and flipping the pancakes as they felt so light and delicate compared to conventional ones. Since I made a few, and the recommended cooking time was 1 min 30 secs and then 40 secs I was pretty busy setting the timer, waiting, flipping, setting the timer again and then preparing for the next round.

The taste was pretty good, it was very light and almost bubbly, but naturally it tasted a lot like eggs and it was surprisingly not that sweet. It tasted the best when it was hot, with some butter and powdered sugar enhancing the pancakes while adding more sweetness. For comparison, these are the pancakes I made.

Photo by Tomoka.

As you can see it's quite flat compared to the ones above and the decoration isn't that great. Regardless I did have a lot of fun just making them and they tasted pretty good. Making this will be a fun challenge with friends over family over the weekend.

K-Pop News

with Lindsay Yoo

Recently, a K-pop boy group called 'NCT', belonging to SM Entertainment, has had a comeback. NCT stands for Neo Culture Technology. It uses the concept of infinite members who are constantly shifting into different sub-groups to promote in different cities around the world. The units within 'NCT' are NCT 127, NCT DREAM, NCT U, WayV, NCT 2018, and NCT 2020. NCT 127 is a unit based in Seoul (127 is the longitude and latitude of Seoul), promoting themselves mainly in America in order to spread Korean culture. NCT DREAM was a rotational unit, with members required to be under 20, but is now a fixed unit. NCT U is a rotational unit, where members that fit the concept are chosen to participate in albums. WayV is the Chinese counterpart of 'NCT', that promotes itself both in Korea and China. NCT 2018 consisted of all the 'NCT' members present in 2018 (18) and NCT 2020 is the newest unit of 'NCT'. Their album recently came out, with 2 new members Sungchan and Shotaro and the addition of WayV members Xiojun, Hendery, and Yangyang. They are the largest group in Korea, with a total of 23 members. As a comparison, AKB48 is the closest example to 'NCT' in Japan, and a total of 40 members are expected to be in 'NCT' in the future.

Image source: NCT Twitter: https://twitter.com/nctsmtown/status/1308781907715391488

Editorial: Change is Good

by Dave Algie, Tango Editor

Tango has a new club president, Janet Jones. As she has outlined on page1, she has several plans to move Tango forward. The idea at this stage is to have shorter editions, but publish more regularly. Also, to give the paper a new look, and more of an online presence.

Tango has changed and evolved before. Originally it was a journal for poetry and fiction. After a few years, students in the Tango club suggested to Mr. Sommer, the founder of Tango, that it was time for Tango to take a new approach, and to give it more of a newspaper vibe. Mr. Sommer immediately gave them the go ahead.

Tango was fine in its original form, but the change up gave it a new sense of purpose, a new lease of life. A similar thing will happen now as Janet and the team get set to give Tango a makeover.

The second incarnation of Tango did not make the first irrelevant. Rather, it enriched the legacy, creating a sense of history and a feeling of things moving forward. The coming new format, look and focus on Tango won't overshadow the work that has been done by the "generations" of Tango contributors over the past decade.

Likewise, our two schools have undergone some changes and adaptations over the past year, and more are on the way. When distance learning was forced upon us, we had to quickly evolve into something new. Returning to the school campus under social distancing conditions, nothing seems quite how it was back in 2019. Things will never be exactly like that, either. You can't go back. You must go forward.

This is not to say that all of the elements that have made Tango great, or SOIS great will be lost. Far from it..

Let's explore this idea in terms of what really matters: New Zealand Rugby.

Source: Wikipedia.org

Source: ESPN UK

Source: AllBlacks.com

The picture on the left is of Dave Gallaher. He was the first captain of the New Zealand rugby team, known as "the All Blacks". He is pictured here on their first rugby tour in 1905. Gallaher was born in Ireland. After an illustrious, pioneering rugby career, he enlisted in the army and was killed during World War 1.

The middle photo is of George Nepia. He was a member of the famous All Blacks team who toured the UK in 1924 and never lost a game. Nepia played all 33 games on that tour and scored 77 points. George Nepia was Maori, and born in New Zealand.

The picture on the right is of Caleb Clarke, the newest All Black sensation who has burst onto the scene in 2020. He was born in New Zealand to Samoan parents.

All three players played at very different times and under very different conditions. They were from vastly different backgrounds. Also, the rules of rugby have changed dramatically since 1905. The ball is a different shape and is made from different materials. The uniforms changed a lot over the century between Gallaher's time and Clarke's time. The rules and tactics have changed significantly.

The fact that rugby has changed so much over the past 100 years, and has had such diversity gives it its rich history. If rugby were still played in exactly the same way as it had been in Gallaher's day, and by exactly the same sort of people, it would be utterly stale. It would most likely have died as a sport.

But the *important* things remained the same for great All Blacks from Gallaher's time right through to the present day. When Caleb Clarke runs out on the field , his pride, his skill and athleticism carry on a tradition that goes back to George Nepia and Dave Gallaher.

Portraits by Jeremy Enecio. Image source: LevyCreative.com

There is a similar dynamic with the TV series *Dr. Who*. There have been fourteen people to have played this iconic figure from science fiction. The changes over the years have added to the tradition and legacy of the character. The changes have also moved in the direction of progress. After 50-odd years, the doctor has had the first female incarnation, played by Jodie Whittaker, hopefully paving the way for still more diversity. Without change, progress can't happen.

Paradoxically, the important things remain the same. The worthwhile values and themes, the heart of Dr. Who remain constant, only made richer by the evolutions taking place around them.

The same ideas can be applied to our two schools and to Tango, their beloved student newspaper: The changes that we see, and the adaptations we have to make will not erase what we achieved before, but will further enhance our legacy and enrich our story. And as we evolve in ways that add to our tradition, it's important that we break new ground and bring more diversity, openness and critical thinking do what we say and do.

So in the years ahead, look to Tango to keep growing and adapting, celebrating the worthy traditions while embracing positive change.

If you're an SOIS student, why not be a part of this? Tango is looking for more diversity in its contributors−we'd love more SIS students and more students writing in Japanese−and as many fresh new ideas as possible as we look ahead to an exciting new future.

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The Beauty of Math

√-1 ❤ Math

with Yoshi Kamegai

True Randomness

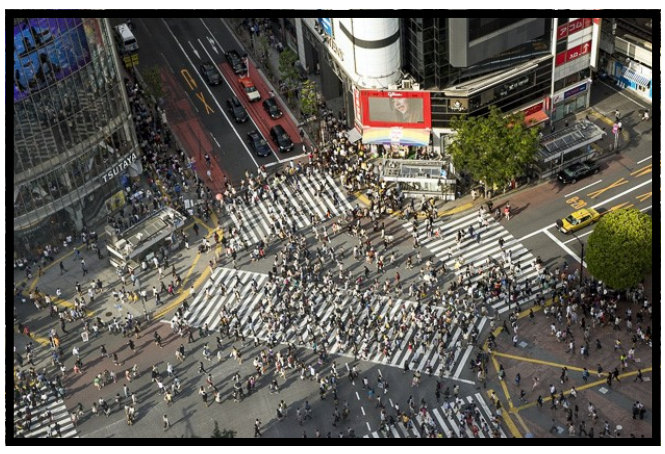
When looking around, we can observe nature and its patterns. If we look carefully enough, we may also find things that do not seem to have a pattern, like number plates of cars at a parking lot. Through the chaotic behavior such instances display, many may consider these things to be 'random'. Familiar randomness may be observed in simple things like coin flips, to that button on your playlist that plays music in random order. However, examples like these raise a somewhat *random* question.

Are things really random?

Well, the quick answer to this question is that it depends, but in most cases the longer answer tends to be closer to no. Take coin flips as an example. We tend to use this in simple bets or when deciding simple things, because we believe that it is a fair method of deciding something randomly when the odds are balanced. However, many coins that we use tend to be imperfect in balance: their rigid surfaces move the center of mass to one side over another, resulting in a biased result, to quite a significant degree. For instance, a report by *Science News* showed that when spinning a US penny on a flat surface, it will land on tails about 80% of the time ("Copenhagen Interpretation"). Something worth noting if you are a gambler (which I hope no one reading this is).

Even if it *is* a fair coin, experiments have shown that coins tended to land on the same face it was launched with a higher probability. From a more logical perspective, coins can also land on their sides, so the probability is never 50/50 regardless of how you attempt to flip it.

Then why do we think that coin flips are random? It's us. The randomness of coin flips emerge from humans, sloppily tossing coins at different speeds, heights and angles. The large variation in these variables create unpredictable motion, which is then referred to as random, because we can't tell the end result. Shibuya's scramble square shows this fairly well. The large margin in variables creates a movement and flow of people that seems quite random, where in reality, each individual has a purpose and specific direction they're heading, which is not at all random.



Shibuya's Scramble Square (Jurgen)

So, with these predictable results, how can someone generate something that is really random? In reality, you could simply google 'random number' and it will give you a result of a random number. If you have attempted coding, you may also know that there is literally a function that generates random numbers. But... where do they come from?

To truly feel something as random, one must first define what random means. A simple definition would probably be along the lines of, "when given a finite string, if we cannot predict what the next value will be, then that string must be random". To make this easier, let's work with numbers. If I were to show you a list of numbers that went like 12345, then the most logical guess for the next number is 6; it's a simple arithmetic progression. But if I were to say 15285, there is no real apparent pattern available to predict the next number.

Case in point, I just slammed my keyboard to get this value, so I also do not know what the next number would be.

So, perhaps randomness is similar to predictability. If we cannot predict the next answer based on past results, we could consider it to be random. To be fair, if every single string of numbers had a pattern after the fifth digit, multiple choice quizzes will simply be based on whether you can get the first five correct. This isn't the case, as each next answer appears to be independent from all other answers.

We can attempt to use this predictability to our advantage when computing random values. Chaotic behavior observed in systems like bifurcation parameters are used in real life to generate random numbers, as it appears to be unpredictable. This however, is completely false; bifurcation and other chaotic systems are processes based on equations which follow a set of rules. Essentially, even with randomly appearing strings of numbers generated by bifurcation, if we know the initial conditions and where those numbers came from, the next number can easily be computed, and therefore is not random. Still, many random number generators tend to use a similar process to this, due to the ease in computation, and simply because it is highly improbable to be able to figure out the initial conditions based on a finite string.

Take a simple string like 123 as an example. Using a similar logic as before, we could logically guess 4. However, if one sees this as part of a Fibonacci sequence, then the guess would be 5, and this guess is as logical as guessing 4. Using a mathematical approach, the next number, could in fact be anything. With so many possibilities, based on some string, it is difficult to find such a predictable pattern, so it does indeed *feel* random. In fact if you visit OEIS, you can type a sequence of numbers that do not seem to have a pattern, and find a result that matches that pattern.

But perhaps you want something truly random. An approach where, by simple coin flips, you can actually result in an unbiased result with equal odds. John von Neumann, crafted a mathematical approach to this, where even biased coins could always result in unbiased results ("Copenhagen Interpretation"). The procedure is the following:

1. Toss a coin twice
2. If the results match, forget both results and start over
3.If the results differ, forget the second result and use the first

The explanation is as simple as it can be, the probability of getting heads then tails, is equal to the probability of getting tails then heads, as these two flips are independent of each other. So, by using the first result, we can obtain an unbiased result where each have a 50/50 chance of occurring. However, such a result feels less random, and more about manipulating probability.

The problem is, that we rely on coin flip randomness from the coin tossing of humans, which is chaotic, but not random. So, let's say we decide to take humans out of the equation, and make machines perform our random task. If we create a mechanism where the initial speed, angle and rotation can be manipulated to provide near identical conditions every time, what we observe is—— the same result, of either always heads, or always tails. In reality, there are multiple machines that can perform this, with high accuracy, giving a pre-decided result ("Copenhagen Interpretation"). After a little thought, this may seem fairly obvious; if the coin is to follow the same trajectory, it must always end up the same. But, imagine if the outcome of each coin toss was decided the moment we looked at the coin. Then, until we see, the coin is both heads and tails, deciding on what side, once it is observed. That would be truly random, and at certain scales, seems to happen.

Now, we dive into a field which is quite strange, a world of consecutive probabilities, a world, where random things actually do seem to happen: quantum physics (Physicist). Here, the outcomes of some experiments are not predetermined; that is, some experiments must be conducted to see the outcome, and the result is based on probability. In the past, it was once believed that there was some hidden variable that determined the outcome of an event, known as the reality assumption. However, Niels Bohr and Werner Heisenburg showed it might not be the case, that the result of an experiment only exists if the experiment is done; that there is no predictability in this experiment, so in such case, true randomness must exist. Also known as the Copenhagen interpretation, it states that objects,

especially at a microscopic level don't have properties of measurement, but rather probability distributions on what the given measurement would be. Many might be familiar with the term "Schrodinger's cat", a hypothetical situation where a cat has a 50/50 chance of survival, and no one knows the state of the cat, until it is measured. Immediately after measurement, the probability collapses to one point, showing a specific value from the possible ones, in this case, the cat is either dead or alive. So, is this true randomness? Have we achieved it? But before that, I want to introduce an article that I found recently.

"Apple made their shuffle feature less random, to make it more random" (Dax Think). Quite a strange title, considering that making something less shouldn't make it more. This is a case in how expectations and assumptions by humans play an important role in how we perceive randomness. If we flip a coin and it results in heads consecutively, we expect tails to appear soon, even though each throw is independent. A more familiar example would be multiple choice quizzes. If we see the same answer appearing 4 times in a row, it would seem quite strange, and we might expect that one of these must be wrong, even if they are all correct. In fact the Apple case was about similar to this; many complained that tracks were appearing consecutively, or that one song appeared more over another, that randomness shouldn't behave so... randomly. So, what we think is random, and what must be random, is perhaps different. Truly random things may actually feel as if they are not random at all.

As suggested in the beginning, and as these examples may have implied, there is actually no method in which true randomness can be generated. If there was such a thing, 'random generators' would be using that methodology. And why can't we? Here's why.

Two famous mathematicians, Kurt Godel, and Alan Turing crafted two theories, the incompleteness theorems, and the Turing complete machine (Physicist). Godel proved that the language of math allows for all mathematical constructs to be expressed. That is, mathematics, the fundamental language of science, must be capable of expressing all of science, though there may be a deficiency in knowledge to describe every event at some moment in time. Turing, proved that all mathematics can be expressed on a 'Turing Complete' machine, which contains data storage, and some logical operations. These machines are state machines, meaning that for any given input, there can only be one output. So all of what is defined as science must be expressible through a program on a Turing complete machine, and as Godel proved, this must be expressible in mathematics. As any sequence generated by the Turing machine *can* be predicted by the running machine, Turing machines cannot produce truly random numbers, and so it is impossible for true randomness to exist in science. In essence, no method by science is capable of creating true randomness. Randomness is only an abstract concept, like infinity; it has no physical form (Perez). True randomness can only be achieved with infinite time and complexity, chaos, or entropy for short. So in the structure of our world, true randomness is impossible.

We may achieve randomness, in the form of probability, but as close as these attempts are, true randomness is unreachable by definition. Randomness comes from the unpredictability of events, whereas probability *is* the predictability of events in the long run. One may achieve random results from true probabilistic events, but that will never be truly random.

Our limit of randomness in the real world is simply consecutive probabilities, an entropy, and that's all.

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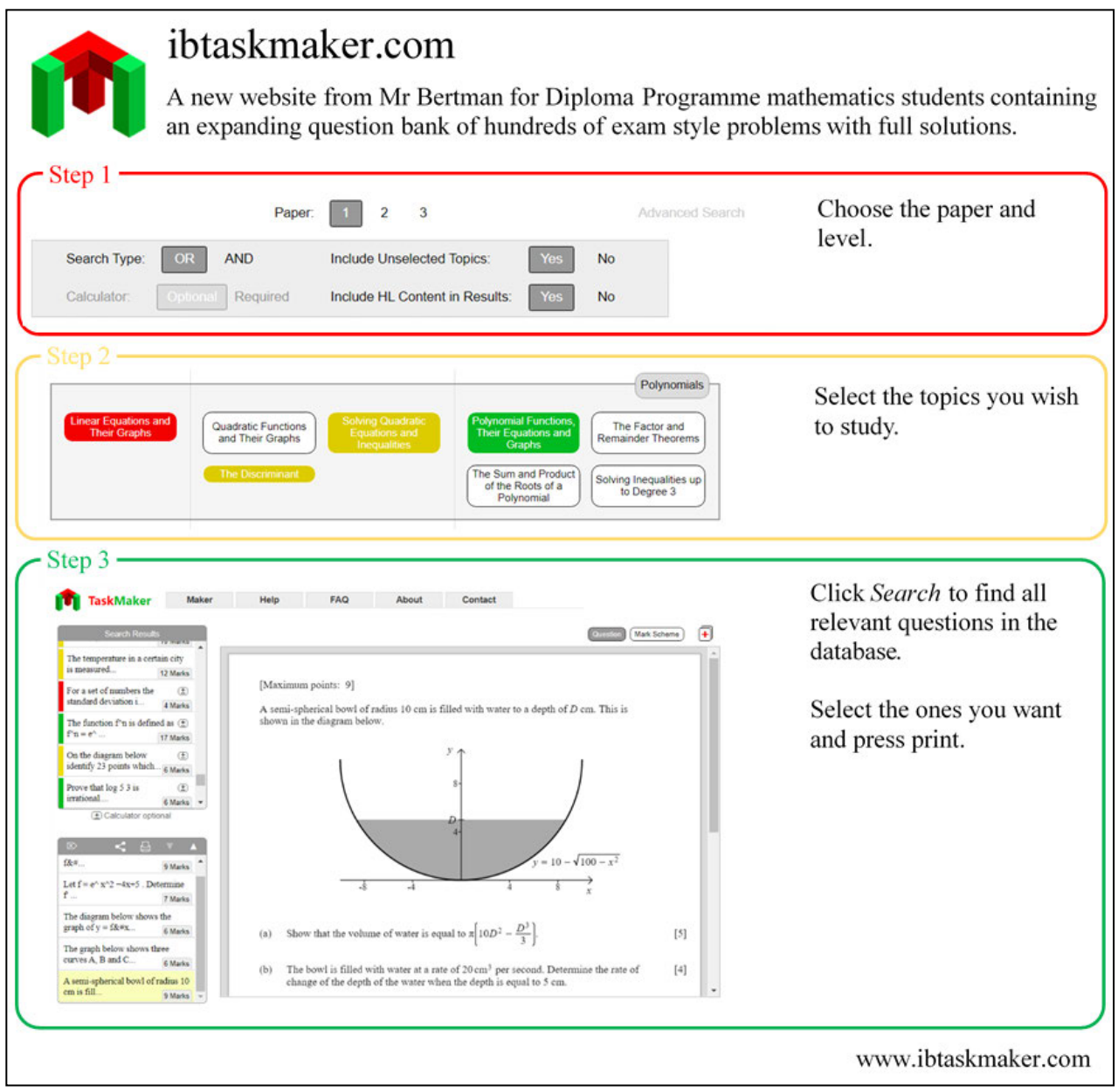
Tango is looking for writers (In English or Japanese), artists, cartoonists and photographers. Contact Janet Jones (The club president), Mr. Algie or any Tango team member for more information.



Sabers Sports

"Can I Have a Word?"

Interview by Lee Jun Foo

Lee Jun: First of all it's a pleasure to have the Boys' Volleyball captain and the returning Female Sabers Athlete of the Year here. As Senior Sabers athletes, I was wondering if you had time for a few questions.

Do Hee: I am on my way to practice but I probably have time for a few questions.

Lee Jun: So my first question would be to Harry. So Harry, how have practices changed in light of the new restrictions placed on the athletes?

Harry: Because there's no tournaments or even friendly matches, Coach Mitsuhashi has become lighter on the players; he's not as strict as he used to be. We're just having fun but at the same time practicing for next year by becoming better players.

Lee Jun: Has the overall morale of the team changed at all, or are the Sabers as poised and ready as ever?

Do Hee: I think the overall spirit has definitely gone down a bit, we used to have something to look forward to like rival matches, or WJAA and AISA tournaments. The motivation used to be stronger and we used to work a lot harder. Although we haven't played any scrimmages, practices are still fun. What's important is that we're really getting closer as a team, we've been talking better, and communicating better with each other. And not to mention Janet joined, so she helps lighten the mood of practice.

Lee Jun: And finally, how well do you think both of you have both of you stepped into the senior role, and taken on a larger role, as both of you are now going into your 3rd year of Sabers Sports?

Harry: Well I'm not a senior, but I am close with a majority of next year's team, and that's why Mitsuhashi Sensei nominated me as the volleyball captain. Because I have a strong voice, and I am pretty convincing when it comes to getting people into their roles and getting the job done the way Coach wants it. I have learned from my previous captain Neo, who I've spent 2 years with, I've learned from him the routines, and how to be a good captain, amongst other things.

Lee Jun: Thank you for your time.

Pictured: Harry helping out with leading basketball practice

Pictured: Sabers Female Athlete of the Year, Do Hee Kwon, back in action with the soccer team.

Sabers Sports Practices in Full Swing

Although COVID-19 has caused the cancellation of all tournaments for the year, Sabers teams are still meeting to exercise, hone skills and build the relationships that help draw our two schools together. Thanks to the managers and coaches who are continuing to give their time and share their expertise.

All photos by Dave Algie