

# SEAB-link



Issue 01/2023

## CUSTOMER SERVICE TRANSFORMATION

YOU CAN CLICK ON A TOPIC, VIEW THE FREQUENTLY ASKED QUESTIONS OR TYPE YOUR QUESTION BELOW.

**NAME AN INITIATIVE BY SEAB TO TRANSFORM CUSTOMER SERVICE PROCESSES.**

AS PART OF SEAB'S EFFORTS TO TRANSFORM CUSTOMER SERVICE PROCESSES THROUGH DIGITALIZATION INITIATIVES, APPROVAL WAS OBTAINED TO IMPLEMENT A VIRTUAL INTELLIGENT CHAT ASSISTANT (VICA) NAMED "ASK SEAB", LAUNCHED ON 1 JUNE 2022.

I CAN NOW USE "ASK SEAB" TO ASSIST ME! THERE'S GUIDED CONVERSATIONS TO HAVE MY ENQUIRIES ANSWERED.

**Onscreen Marking Wins Inaugural MOE Minister's Innovation Award**

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**Gearing Up For e-Examinations**

09

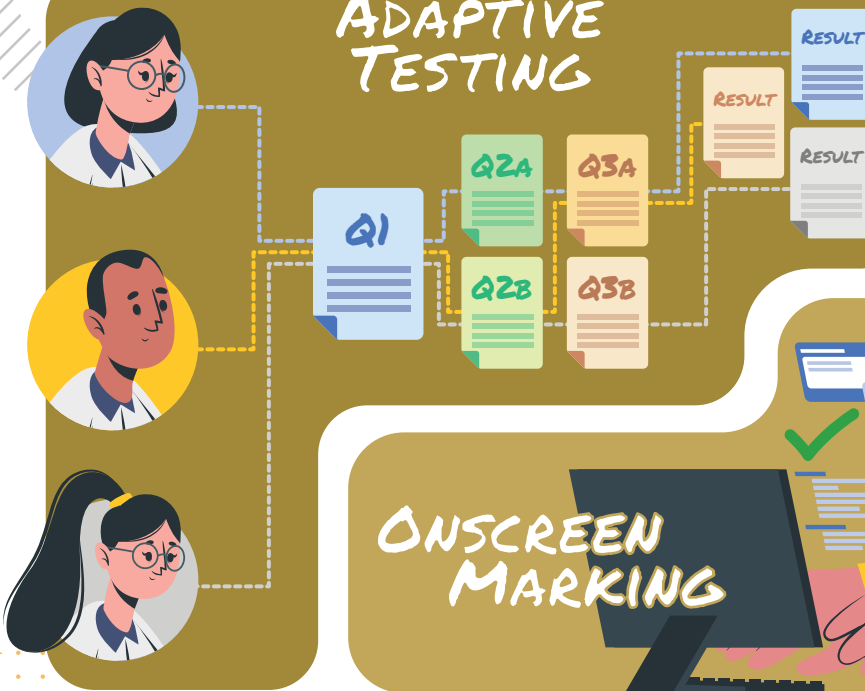
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## ADAPTIVE TESTING



## ONSCREEN MARKING

## E-EXAMINATIONS



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# Overview



## Dear Readers,

We hope you are keeping well. Much has taken place since our last issue, and we would like to update you on our latest developments.

With technology advancing at a breakneck speed, Singapore's educational practices are also evolving to develop 21st century competencies. In tandem with this evolution, SEAB is exploring new possibilities to meet changing demands. In this issue, we shed light on SEAB's digitalisation plan and our foray into new digital initiatives.

SEAB continues to make great strides in our digitalisation journey. Since 2022, all locally marked GCE-Level and PSLE subjects have transited to onscreen marking (OSM). SEAB was awarded the MOE Minister's Innovation Award during the 2023 MOE Teachers' Conference and ExCEL Fest for the efforts in OSM. SEAB's progress on the digital front was also celebrated during the 2023 SEAB Day and 2023 SEAB Seminar. As part of our continuing drive towards digitalisation, more examinations will be conducted electronically, such as the GCE N(A)-Level Social Studies and GCE N(T)-Level English Language Paper 1.

The success of SEAB's initiatives is closely intertwined with the strong partnerships with our stakeholders, including our teachers. Throughout 2023, SEAB facilitated dialogue sessions with educators and corporate visits by local and international counterparts, to build understanding and promote candid discussions on current and future examination and assessment practices.

On 30 May 2023, SEAB witnessed the graduation of the second cohort of educators who had successfully completed SEAB's Certificate in Examination and Assessment in Education Programme. The programme served as a collaborative platform for them to share their experiences and to sharpen their understanding of assessment practices.

We hope that you enjoy reading this issue of SEAB-link. If this is your first time reading our newsletter, we invite you to browse our past editions on [SEAB's website](#).



SEAB-link Editorial Team

# Onscreen Marking Wins Inaugural MOE Minister's Innovation Award

Held since 2001, the MOE Teachers' Conference and ExCEL Fest (TCEF) is a conference for educators to be updated on the latest trends and developments in education, and for discourse on innovative teaching practices and projects to take place. Deserving innovation projects are also recognised at the TCEF. In the 2023 event, a new award category was introduced by Minister for Education, Mr Chan Chun Sing. Known as the Minister's Innovation Award, this aims to recognise innovations with large-scale, system-level impact across Ministry of Education (MOE) headquarters, schools, and the Ministry's Statutory Boards. Six projects were conferred with this award in 2023.

On 30 May 2023 during the TCEF, SEAB was honoured to receive the MOE Minister's Innovation Award for the onscreen marking (OSM) initiative for the GCE-Level examinations. Since the first implementation of OSM in 2019, SEAB had extended OSM to all PSLE and GCE-Level locally marked subjects. In 2022, SEAB made another breakthrough by implementing OSM for the GCE O-Level Combined Science and Biology practical scripts that were previously marked by Cambridge Assessment International Education.



2023 MOE TCEF award presentation ceremony, held on 30 May 2023 at Sands Expo & Convention Centre.

The OSM project team attended the TCEF award ceremony on 30 May 2023 that was held at the Sands Expo & Convention Centre and graced by guest of honour, Mr Chan Chun Sing, the Minister for Education.

Speaking during the ceremony, Ms Sharifah Mufidah Mohamed Aljunied, Lead Assessment Specialist (Humanities and Aesthetics), Assessment Planning and Development Division, highlighted how “we wanted to leverage technology and data to improve efficiency and quality of markers”. She shared that with OSM, “we can focus on professional discussions about marking and students' answers instead of operational issues” during the marking exercises.

Let's read an interview with a member of the award-winning SEAB OSM project team.



Members of the OSM Project Team with Minister for Education, Mr Chan Chun Sing.

## Interview with Terence Woo, Senior Manager (Marking and Moderation), Exam Operations Division

### Qn: What did your project aim to achieve? What has changed with the implementation of the project?

SEAB introduced onscreen marking (OSM) in national examinations to enhance marking quality and efficiency. With OSM, candidates' hardcopy answer scripts are digitised, removing the need for physical transfer and counting of scripts during marking. This enables markers to focus on the professional aspects of marking. Overall, OSM makes the marking process less labour intensive, saving about 50% manpower efforts for the markers and SEAB.

### Qn: What gave you the greatest sense of fulfillment/achievement?

This project seemed unfathomable at the start, and the project team was unsure of the markers' adaptability and response to the change. With perseverance, dedication and many iterative testing and trials, OSM reaped positive results and markers welcomed this initiative. This was our team's greatest sense of achievement.

### Qn: What was the key challenge you faced during the innovation process?

The greatest challenge would be change management. Teachers were very comfortable with the conventional way of marking in pen-based mode. Many were initially sceptical of OSM, expressing concerns with the usability of the system.



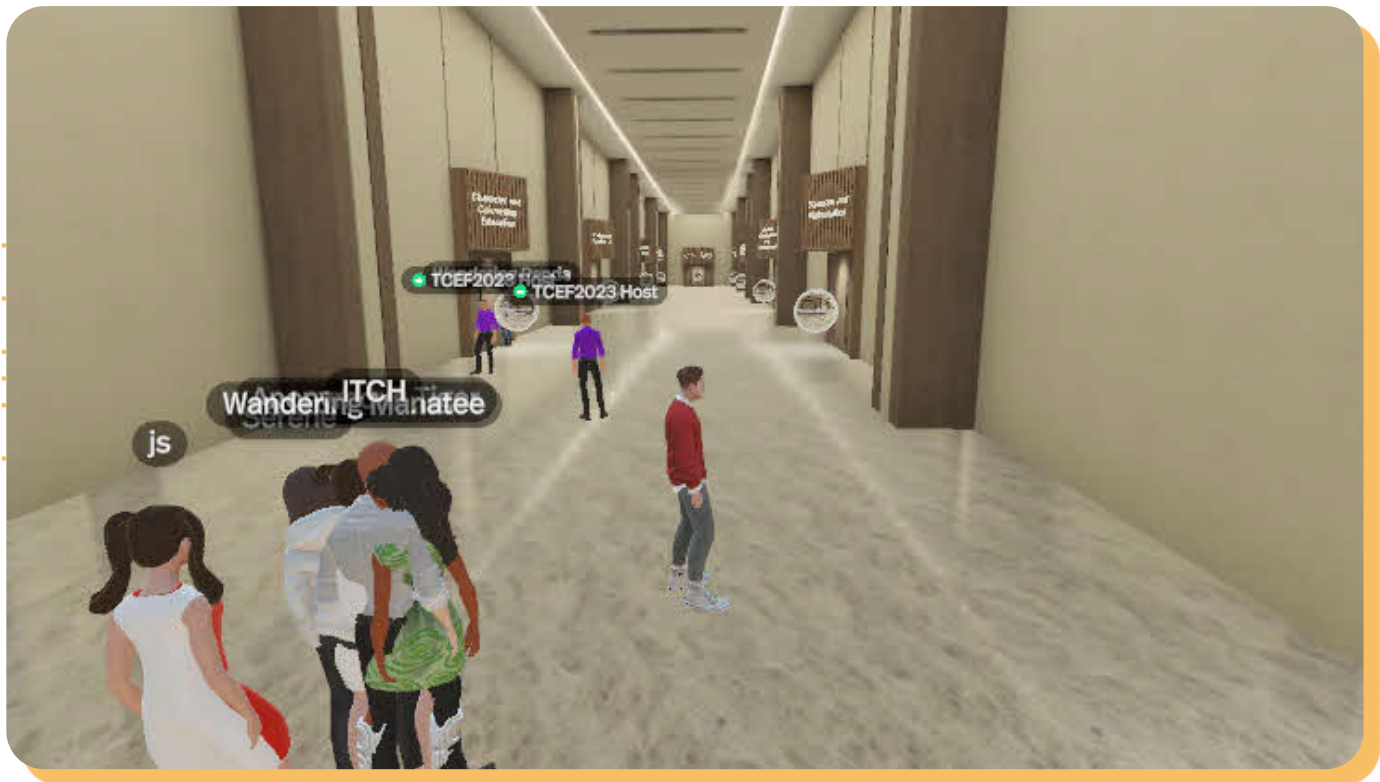
### Qn: What advice would you give to someone to encourage them to innovate?

Curiosity and a mindset for continuous improvement are critical factors for innovation. Do not be afraid to embrace technological innovation. As markers familiarised themselves with OSM and with SEAB's support throughout their journey, they became more receptive. Some even became advocates of OSM.

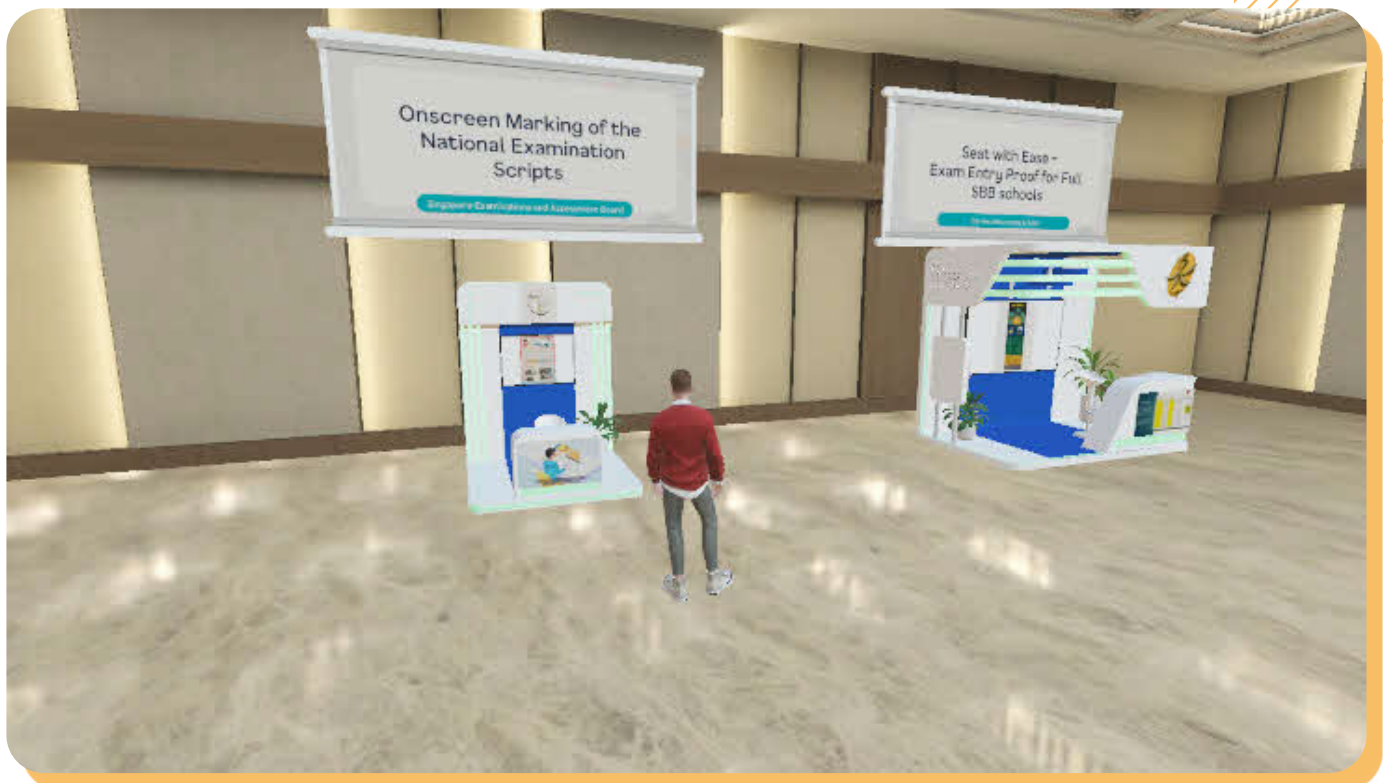
Be ready to take calculated risks and challenge the status quo. To allay markers' concerns, SEAB conducted various hands-on trainings to assure them of the ease of use and benefits of OSM. Finally, be resilient and adaptable, by choosing to view challenges as stepping stones towards innovation.



SEAB was also invited to demonstrate OSM's capabilities to an audience from MOE and its statutory boards. Held during the TCEF's virtual exhibition that spanned three days, from 30 May 2023 to 1 June 2023, the virtual exhibition was hosted in a metaverse and attended using online avatars.



Members of the MOE family walking along the virtual exhibition corridor using their online avatars.



SEAB's virtual exhibition booth.

SEAB is delighted to have contributed positively to the education landscape. The Minister's Innovation Award will encourage SEAB to continuously innovate in the fields of examinations and assessment.

# 2023 SEAB Assessment Seminar



*International educators from the iPSLE centres.*

SEAB organised an Assessment Seminar for international educators from the International Primary School Examinations (iPSLE) centres and local teachers from Singapore Primary Schools on 31 May 2023. About 120 educators attended this seminar.

Mr Tan Kuo Cheang, Director, Assessment Planning and Development Division (APDD), opened the Seminar with a sharing on *A school leader's perspective on assessment*. Mr Tan shared his first-hand experience from leading assessment in the Ministry of Education (MOE), as an ex-Principal of a Secondary School.



*Mr Tan Kuo Cheang, Director, Assessment Planning and Development Division, delivering the opening address.*

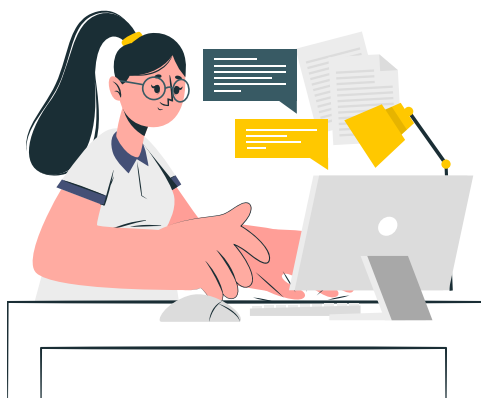
SEAB Specialists shared new areas of assessment findings with the audience:



Ms Adeline Teng, Senior Assessment Specialist, presented on *Mediation – Its place in classroom assessment of English Language skills* where changes in assessment literacy and perennial gaps observed in candidates' responses in English Language tests were discussed. She further introduced mediation as a strategy for formulating formative assessment tools to assess social-emotional intelligence.



Mr Dennis Yeo, Assessment Officer, expounded on the topic of *4i strategies to develop Mathematics items*. He shared about the use and limitations of generative Artificial Intelligent (AI) tools, such as how ChatGPT can assist with the ideation, generation and customisation of items.



The Research and Development Division (RDD), led by Director Ms Thong May Teng, showcased their innovations on e-exams and MathsCheck. Participants were enthralled by the advanced technological solutions that streamline the assessment processes while ensuring the integrity of assessment. The sharing on the e-exams platform offered a glimpse into the future of examinations, while the MathsCheck presentation introduced participants to an interactive tool designed to help students identify and improve their mathematical knowledge and skills.

In the afternoon, the seminar participants were invited to attend a series of concurrent presentation sessions by the first cohort of graduates from SEAB's Certificate in Examination and Assessment in Education (CEA in Edn) programme. The graduates presented how formative assessments could be enacted in the classroom to enhance teaching and learning.

The 2023 SEAB Assessment Seminar was well-received, reflecting SEAB's dedication to enhancing educators' assessment literacy. SEAB remains committed to this goal and the development of effective assessment practices in education.



Seminar participants attending one of the presentation sessions.



Seminar participants in discussion.



# Gearing Up For e-Examinations

## GCE N(T)-Level English Language Paper 1 and GCE N(A)-Level Social Studies

Technology is often cited when we speak of preparing our students for the future. As part of SEAB's efforts to harness the affordances of technology in examinations, we are introducing e-examinations for the Singapore-Cambridge General Certificate of Education Normal (Technical) Level (GCE N(T)-Level) English Language Paper 1 from 2023 and GCE Normal (Academic)-Level (N(A)-Level) Social Studies paper from 2024.



Students in action at the e-examination trials for N(A)-Level Social Studies.

## GCE N(A)-Level Social Studies

The GCE N(A)-Level Social Studies paper will transit to a hybrid mode of e-examinations from 2024. N(A)-Level Social Studies will be the first subject to be examined in this mode where students are given the question paper in hard copy but will type their responses into the e-examination system.

A research study was conducted in 2022 to find out how our N(A) students felt about taking the Social Studies examination in the hybrid mode and how they would manage in this mode of examination. The study involved 185 Secondary 4N(A) student participants from 7 schools. In this study, the students were required to respond to a Social Studies paper by typing in their responses using laptops. After the test, they were asked to complete a survey. 77 students were also invited to share their views in focus group discussions.

The survey results (see Table 1) affirmed that students were positive about taking the N(A)-Level Social Studies examination using the hybrid format.

Table 1: Survey Findings

Survey Statements	% Strongly Agree & Agree
The e-exam system was easy to use.	90%
I like being able to organise and edit my response via computer.	89%
I like the e-exam experience.	84%

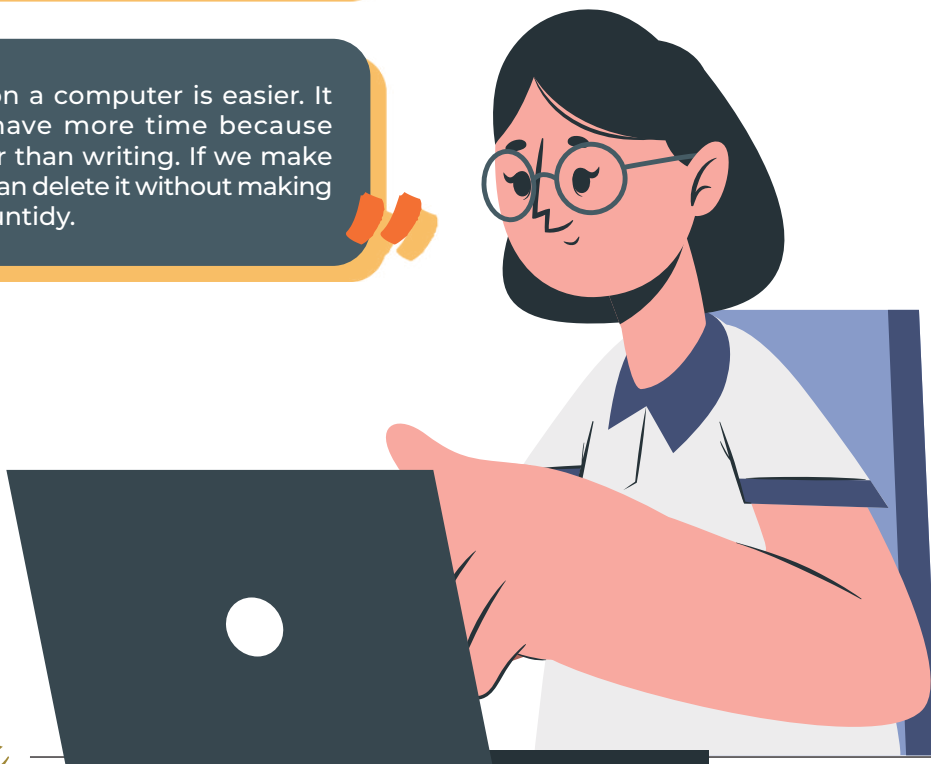
During the focus group discussions, students shared that they appreciated being able to type and edit their answers. This, together with the fact that many of them type faster than they write, enabled them to free up more time to understand the sources and sharpen their arguments.

Moving forward, SEAB will provide a practice session for students sitting the GCE N(A)-Level Social Studies examination in 2024. To familiarise students with the interface and features of the e-examination system, an interactive online tutorial will be made available on SEAB's website from 2024.

## Students' views on having e-examination for GCE N(A)-Level Social Studies

It is easier to edit responses on the computer than on paper. Editing responses on paper takes up more time for me.

Doing a test on a computer is easier. It allows us to have more time because typing is faster than writing. If we make a mistake, we can delete it without making our response untidy.



Using a computer feels different and typing on screen with the sources being on paper is effective. It is easy for me to refer to the sources and then type.

I personally feel that e-exams is a good system and could be used for future exams.

Using the computer to do the exam was a pleasant experience.

I would love to do actual exams on computer in the future.

Instructions are easy to follow. The e-exam saves space on the desk.

### GCE N(T)-Level English Language (EL) Paper 1

From 2023, candidates sitting the GCE N(T)-level English Language Paper 1 examination will be doing so electronically. Schools offering the subject had a chance to try out the e-examination system through a practice session. The session gave students full opportunity to familiarise themselves with text input of responses and the features of the electronic examination. Some key features include text editing, the countdown timer and the word count functions. The full e-examination interface can be found on [SEAB's website](#).

Through the survey conducted at the end of the practice session, we found that students welcomed the e-examination mode for N(T)-Level English Language Paper 1. They found the e-examination system helpful and easy to use. They also had a good user experience with the system and were comfortable and confident in taking their GCE N(T) English Language Paper 1 examinations using the system this year.

Survey Statements	% Strongly Agree / Agree
It was easy to edit my responses.	95%
It was easy to organise my responses.	94%
I found the word count useful.	97%
I found the timer useful.	96%
The e-exam system is user friendly.	95%
I like the experience of taking the exam using computer.	90%



**NA Singapore-Cambridge**  
General Certificate of Education Normal (Academic) Level

Duration 1h 45m 0s **START**

Cddt/200A Cddt200A **SOCIAL STUDIES**

**HUMANITIES** 2175/01 2176/01 2177/01  
Paper 1 Social Studies Onscreen Trial: May 2022  
1 hour 45 minutes

**DIGITAL ANSWER BOOKLET**

Answer each question in the response space provided.

To begin the test, click [Start].  
At the end of the test, click [Submit].

**NA Singapore-Cambridge**  
General Certificate of Education Normal (Academic) Level

Time Remaining 0h 0m 0s **SOCIAL STUDIES**

Cddt/200A Cddt200A

**Submit Your Response**

Submit your response using the button below.

**SUBMIT AND EXIT THE TEST**

**NA Singapore-Cambridge**  
General Certificate of Education Normal (Academic) Level

Time Remaining 1h 44m 50s **SUBMIT**

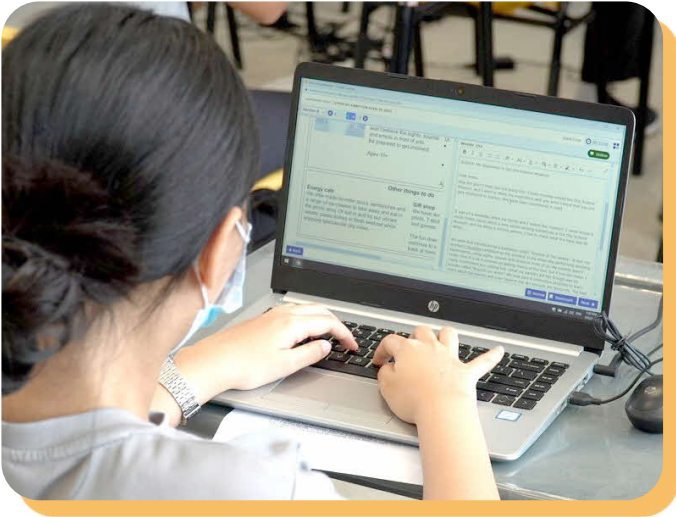
Cddt/200A Cddt200A **SOCIAL STUDIES**

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**Question 1**  
Write your answer in the response space below.

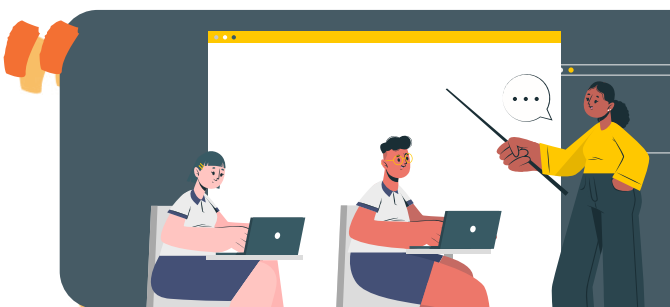
English

Screenshots of the digital answer booklet for GCE N(A)-Level Social Studies.



Students in action at an e-examination practice session for N(T)-Level English Language Paper 1.

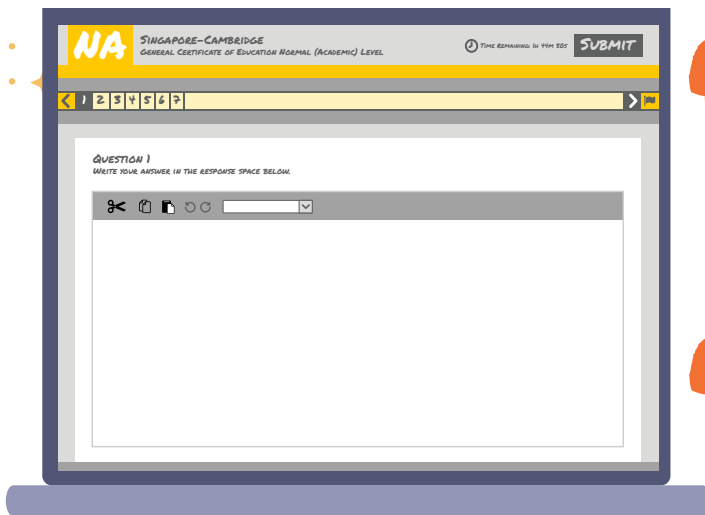
## Teachers' and students' views regarding GCE N(T)-Level EL Paper 1 e-examination



As we progress and as we are moving into an IT nation, being computer-savvy, being natural and comfortable with the keyboard is important. There are not many situations where we need to write nowadays.... It helps them (students) be engaged in their studies and exams.

— Teacher, Hougang Secondary School





Students seemed more comfortable and “willing” to write more. The ability to place stimulus beside writing helps students to select info more often for Situational Writing.

— Teacher, East Spring Secondary School

The Notepad function helps you put ideas in point form when writing the composition.

— Student, Kranji Secondary School

With this mock e-exam, I feel more confident to manoeuvre from section to section. I find the bookmark function really efficient to go back and change whatever I want to change..

— Student, Hougang Secondary School



It's not difficult to get used to navigating the platform. My students took to the exercise quite immediately because they are used to working on a laptop. It's quite intuitive.

— Teacher, Chua Chu Kang Secondary School

When they (students) write .... they have all the cancellations. I like the editing feature. It helps them add on and delete easily.

— Teacher, Spectra Secondary School

I like the function where you can (zoom) enlarge the leaflet and writing.

— Student, Spectra Secondary School



These are snapshots of screen pages through the students' eyes and what they need to complete:

The screenshot shows a digital assessment interface for 'Section A'. The question text is: 'David Raj is a young table tennis player with a great future. He has been (1) offer the opportunity (2) for compete in a competition, and all his free time is (3) spend preparing for it at his table tennis club. He joined the club when he was five, after (4) watch his older sister's lesson. He asked (5) that if he could join too, and although he was the (6) young ever to join the club, he (7) quick demonstrated his natural skills to the coaches. Head Coach, Mrs Chen, (8) believe his excellent co-ordination makes (9) her such a great player, and that he is (10) like to do well in the'. To the right of the text is a 'Column for corrections' with 10 numbered input boxes. A red arrow points from a 'Response box' label to the second input box. At the bottom right, a navigation bar contains 'Review', 'Bookmark', and 'Next' buttons, which are circled in red and labeled 'features and navigation'.

An Editing item type.

The screenshot shows a digital assessment interface for 'Section C'. The question text is: 'Write about a time when you forgot something important. You should include what you forgot and what happened when you forgot it. You are advised to write at least 120 words.' To the right of the text is a 'word count' display showing 'Words: 0'. Below the word count is a rich text editor toolbar with various icons for text formatting and editing. A large empty text area is labeled 'Response area'. At the bottom right, a navigation bar contains 'Review', 'Bookmark', and 'Next' buttons.

An essay item type.

SEAB is excited to be able to enhance the examination experience for our students and hope that you join us on this journey of getting our students ready for their future through assessment!

# 2023 Certificate in Examination and Assessment in Education Graduation Ceremony

The second cohort of the Certificate in Examination and Assessment in Education (CEA in Edn) Programme saw 42 participants receiving their certificates this year. It was a joyous day on 30 May 2023 as SEAB organised the graduation ceremony for these educators at SEAB's premises.

Mr Yue Lip Sin, Chief Executive, SEAB, gave the opening address at the ceremony. He congratulated the participants on their completion of the programme, and encouraged them to continue to strengthen key assessment areas such as the use of assessment data as feedback to enrich and empower students' learning. He shared that assessment should empower students' learning through intrinsic motivation rather than extrinsic motivation. Mr Yue also presented the certificates to the graduates.

In each cohort, a valedictorian would be selected based on his/her performance in the Capstone Assignment, which is a requirement for graduation. Ms Teo Woon Teng from Pioneer Primary School was the selected valedictorian from the second cohort. In her speech, she shared the importance of creating platforms for collaborative conversations among teachers to bring about learner-centred assessment culture and practices.



Valedictorian Ms Teo Woon Teng.

Five teachers were also invited to share their learning experiences and knowledge gained from the programme. They shared about the following topics:

Name	School	Sharing Topics
Ms Raveendran Pavithra	Endeavour Primary School	Assessment Plan for Primary Science
Ms Ng Jieying	Bedok Green Primary School	Data Collection for Primary Mathematics
Ms Jasmine Lim Shu Hui	Montfort Junior School	Quantitative and Qualitative Analysis for Primary Mathematics
Mr Go Jun Hong	Woodgrove Secondary School	Quantitative and Qualitative Analysis for Secondary Chemistry
Ms Zaleha Binte Admad	Geylang Methodist School Primary	Assessment Plan to Drive Eventual Outcomes for Primary Languages

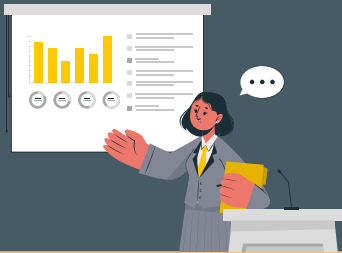




CEA graduands with CE, SEAB, and MOE and SEAB management.

As a whole, the programme received positive responses from participants. The participants also appreciated the opportunity to learn from SEAB's experienced trainers and saw the certification programme as a collaborative platform to sharpen their understanding about assessment practices and to exchange idea.

### Positive feedback from participants



I appreciate the clarity in unpacking the terminology used in Singapore School Assessment System. Presenters were able to address queries and provided very insightful sharing/professional judgement based on their wide experiences working in SEAB.



The skilful facilitation by the presenters on orchestrating rich discussions enabled deep reflection on my own assessment beliefs and practices, as well as my school's assessment culture.



The programme created time for me to think deeper on how to apply the knowledge and provided the opportunity to discuss with colleagues from different schools our practices.



One group of 2024 CEA Graduates.

## About CEA in Edn Programme

The CEA in Edn programme was developed and launched in 2020 by SEAB in alignment with MOE's thrust to train teachers as Assessment Champions to roll out assessment initiatives. The programme is part of the SkillsFuture for Educators (SFEd) Professional Development roadmap designed to support in-service teachers in continuing their professional growth in the area of Assessment Literacy.

The programme comprises two core modules, Interpretation of Test Data and Making Sense of Quality School-Based Assessment. Participants will also take an elective module of their choice to deepen their understanding of test construct at the disciplinary level.

At the end of the programme, participants will complete a Capstone Assignment before they are awarded their certificates.

More details can be found on [SEAB's website](#).

# The Power of Conversations

## Building Bridges and Creating Connections



*Mr Yue Lip Sin, Chief Executive, SEAB (first from left), with Mr Chin Chi Leong, Deputy Chief Executive Officer (Building Control)/ Commissioner of Buildings, Building and Construction Authority (third from left), and officers from the PEB and SEAB.*

At SEAB, we are passionate about building strong relationships with our stakeholders, such as our teachers and schools. We believe in listening to their voices as part of continuous improvement.

To achieve this, we organise engagement sessions every year with educators. These sessions provide a platform for open and rich sharing of the national examination processes, and they have been instrumental in shaping our approaches.

Moreover, we also welcome visitors from local and overseas institutions, as we believe that these exchanges are invaluable opportunities for us to learn from each other, share experiences and contribute to the global conversation on education. Through these exchanges, we have gleaned fresh perspectives as well as forged new relationships.

We had the pleasure of meeting many amazing people in 2023. Read on to find out more!



*Mr Ernest Soo, Commander of ICA Training Command (second from left of the first row), presenting a token of appreciation to Mr Pek Wee Haur, Director, Assessment Planning and Development Division, SEAB (third from left of the first row).*

## Corporate visits

SEAB hosted a diverse group of local and international visitors this year – the Professional Engineers Board (PEB), ICA Training Command, officials from the United Kingdom Department for Education, and researchers from Meiji University, a private research university in Japan.

The PEB and ICA were keen to understand more about SEAB's practices in test development, conduct of examinations and marking processes. For both agencies, we shared the various stages of test development and the planning efforts poured into ensuring a smooth conduct of the national examinations year-on-year.

With the United Kingdom Department for Education, there was a rich exchange of ideas and discourse on the larger curriculum and assessment developments and reforms in Singapore, assessment practices, as well as the future developments and plans for digital delivery of examinations.

The researchers from Japan were interested to learn about our experience in implementing Computer Science in our education system and how the subject was assessed. The Singapore experience would provide reference for Japan, which will be introducing Computer Science as a common test subject from 2025 for university admissions.



*Delegates from the United Kingdom Department for Education and SEAB management and staff taking a group photo at SEAB to commemorate the visit.*



*Dr. Ema Tanaka and Professor Toshiya Jitsuzumi posing for a photo with Mr Caleb Yee, Assessment Officer, Assessment Planning and Development Division, SEAB.*

## Conversations with Educators

On 26 July and 4 August 2023, SEAB hosted teachers from NIE's Teacher Leaders Programme (TLP) and participants of SEAB's Certificate in Examination and Assessment in Education (CEA in Edn) programme. A total of 56 educators attended the sessions.

The dialogue sessions provided a safe space and platform for the teachers to clarify any doubts or questions about the national examinations as well as provide feedback for us to streamline our processes. There was active and meaningful conversations about the national examinations assessing a wide range of skills including 21st century competencies and the importance of balancing the joy of learning with assessment.

SEAB's Chief Executive, Mr Yue Lip Sin, and Directors from various Divisions engaged in meaningful discussion with the participants, providing valuable insights and answering their queries. Overall, the participants were happy with these sessions and provided positive feedback.

## Feedback from the NIE's TLP participants

Thank you, SEAB Corporate Communications, for hosting the learning journey for the teacher leaders who have attended "Conversations with SEAB – Teacher Leaders Programme". We are honoured to have this rare opportunity to meet the senior management and to hear first-hand the rationale behind decisions made on various aspects of assessments in Singapore.

After the visit, we had a better understanding of how examinations were administered in the past and how they are designed to meet the current national needs. We also learnt about the work that SEAB is currently doing and the innovations that have transformed examinations and assessments.

The conversation also provided us perspectives on the roles and functions that assessments play at the systemic and school level. The senior management reminded us to always pitch assessments at a level that is relevant to context and content.

SEAB has always played a vital role in the education system. It reiterates the need for meaningful assessment. On this note, we would like to thank SEAB for hosting us and the directors for their invaluable perspectives in assessment matters.



Participants from the CEA programme having a group discussion.



A group of participants from the CEA programme posing for a photo in SEAB's Heritage Gallery.



SEAB management having a candid discussion with the TLP participants.



All smiles from the CEA participants.



Participants of the TLP listening intently to Assessment Officer Ms Sem Seow Wei's sharing on Making Assessment Progressive, Relevant and Authentic.



Happy faces after the engaging conversation.

# 2023 Singapore-Cambridge Consultative Committee Meeting

The annual Singapore-Cambridge Consultative Committee Meeting (CCM) is a platform for the Ministry of Education (MOE), SEAB and Cambridge Assessment International Education (Cambridge Assessment) to discuss developments in assessment, and to share findings, learning and new insights in educational research.

This year's CCM was held in Cambridge in end-June 2023. The Singapore delegation gave presentations about the future of learning, Full Subject-Based Banding (Full SBB), efforts to uplift low progress learners, and the use of AI-enabled tools in teaching and learning.

Both parties also discussed the rollout of the Singapore-Cambridge Secondary Education Certificate from 2027 and affirmed our ongoing efforts to ensure a smooth transition.



*Group photo of the Singapore delegates, Cambridge Assessment colleagues, and the Head of School, Chesterton Community College (4th from left).*

The Singapore delegation visited Chesterton Community College, a school of about 1000 students from ages 11 to 18 with different socio-economic backgrounds. The school was rated by UK's Ofsted as outstanding in its overall effectiveness in teaching, learning and assessment. It was also known for its value-add to the students.

The Head of School shared about the school's caring approach to their students and the knock-on effect. She shared that many of their students went on to pursue careers in teaching, nursing and social care; a nod to the impact of the school in inspiring them to be willing to serve and give back to the community and society.



*The Singapore delegation having in-depth discussions with Cambridge.*





A teacher explaining how 6th Form students practised measuring the gradient of a beach in preparation for a Geography field trip.



Engaged students working in groups along a corridor during an English Literature class.



Students working in groups to set up an electric circuit in a science laboratory.



Prof Longair highlighting fascinating details behind one of the many ground-breaking Physics experiments.

The school also highlighted the importance it placed on the future-readiness of its curriculum. Recognising that their students needed to navigate a digital environment in the future, it empowered each student with an iPad for both administrative and learning purposes.

Technology was firmly incorporated into the curriculum. A technology-enriched Geography lesson was showcased to the Singapore delegation as an illustration of how the curriculum was enacted in the school.

During the visit to the Cavendish Laboratory, Prof Malcolm Longair, Director of Development, hosted the Singapore delegation. He brought to life the illustrious history of renowned experimental physicists, including Maxwell, Lord Rayleigh, J.J. Thomson, Rutherford and Chadwick, and the many ground-breaking experiments that pushed the boundaries of scientific research. A fascinating theme that cut through the many decades of research was that these scientists had to apply critical, inventive and adaptive thinking as they conceptualised abstract concepts from unknowns and constructed their own instruments and equipment from scratch to test their hypotheses.

Among these were the famous Millikan's oil drop experiment to determine the electronic charge and its precursor that used water droplets, and the construction of the first accelerator using water pipes joined together with Plasticine, a new material at that time, to induce the first artificial nuclear disintegration by bombarding lithium nuclei.

The 2023 CCM saw fruitful discourse and an exchange of ideas concerning our developments and focus for the future. It also offered an excellent opportunity for the leadership of MOE, SEAB and Cambridge Assessment to meet face-to-face and discuss matters of concern.

# 2023 SEAB Day

## Soaring for a Better Tomorrow



*Theme for 2023 SEAB Day.*

On 1 April 2023, SEAB turned 19 years old. We commemorated this occasion two days earlier, on 30 March 2023, with our annual SEAB Day celebrations in our hall. Every year on SEAB Day, we express our sincere appreciation for each other's hard work and affirm our commitment to soar for a better tomorrow.

### Opening address

Mr Yue Lip Sin, Chief Executive (CE), SEAB, delivered an opening address to kick-start the celebration. He expressed his heartfelt appreciation to all SEAB staff for playing their part in the national fight against the COVID-19 pandemic. For the past two examination cycles, arrangements such as COVID-19 safe management measures, special consideration provisions for grade projection and the removal of common last topics were put in place for the smooth conduct of Singapore's national examinations.

He highlighted the significant breakthroughs that were made in the areas of onscreen marking (OSM) and electronic examinations (e-examinations). In 2022, all locally marked GCE-Level and PSLE subjects were marked onscreen. In the same year, 60 GCE-Level examination papers were conducted as e-examinations.

CE covered other significant achievements and their positive outcomes in strengthening staff engagement and well-being. He also emphasised the importance of teamwork, saying, 'The lesson for us really is that if we work as a team and we have shared goals, we will be able to move further, and we will be stronger. This has been illustrated in Singapore's fight against the pandemic as well as SEAB's way of working with all the projects. Working as a group, we are much stronger.'



*Mr Yue Lip Sin, Chief Executive, Singapore Examinations and Assessment Board, delivering the opening address.*



Address by Mr Wong Siew Hoong, Board Chairman.

## Celebrating with Board Members and former SEAB staff

For this year's celebrations, we were honoured to have special guests gracing us with their presence. With us were SEAB's Board Chairman, Mr Wong Siew Hoong; Board members Professor Bernard Tan, Ms Juthika Ramanathan and Ms Lee Cher Farn; and many former staff.

In his address, Mr Wong shared his sense of pride in SEAB's examination setting standards in the face of new advancements in technology such as ChatGPT. He recognised SEAB's progress and the challenges faced when implementing our digitalisation initiatives.

Mr Wong also covered three important organisational lessons. He shared that teamwork within SEAB and with its external partners were vital to SEAB's success. People, he said, were SEAB's most important asset.

Using the fight against COVID-19 as an example, he reminded SEAB to continue being responsive and adaptable in our VUCA world. He also paid tribute to the foundations laid by past generations of SEAB staff, citing their contributions in SEAB's current successes. At the end of his speech, Mr Wong expressed confidence in SEAB's ability to meet the challenges of the changing education landscape.



Board Chairman (sixth from right), Board members, former Chief Executives and SEAB management celebrating 2023 SEAB Day with a cake-cutting ceremony.



*SEAB staff learning new things about each other through Human Bingo.*

## **Fun and games**

No celebration is complete without team bonding activities. We had everyone come together for a game of Human Bingo. Our staff have diverse interests and lived experiences, and it was fun learning new things about each other.

In line with the theme of 'Soaring for a Better Tomorrow', everyone also participated in a friendly drone-flying competition. The challenge was to work together within a short period of time to control and fly the drones. It was initially challenging to get the drones up in the air, but when put to the test, the participants rose to the occasion. With perseverance, some practice and the support of fellow colleagues, we saw many drones soaring high up our hall.



*Trying our hands at controlling and flying drones.*

## Reflections

Everyone also took a trip down memory lane by reflecting on our proudest achievements in SEAB.

This meaningful activity rekindled many memories and everyone penned our hopes and dreams for SEAB on LED message boards.

The hall lights were dimmed and our wishes lit up the hall like shining stars in the night sky.

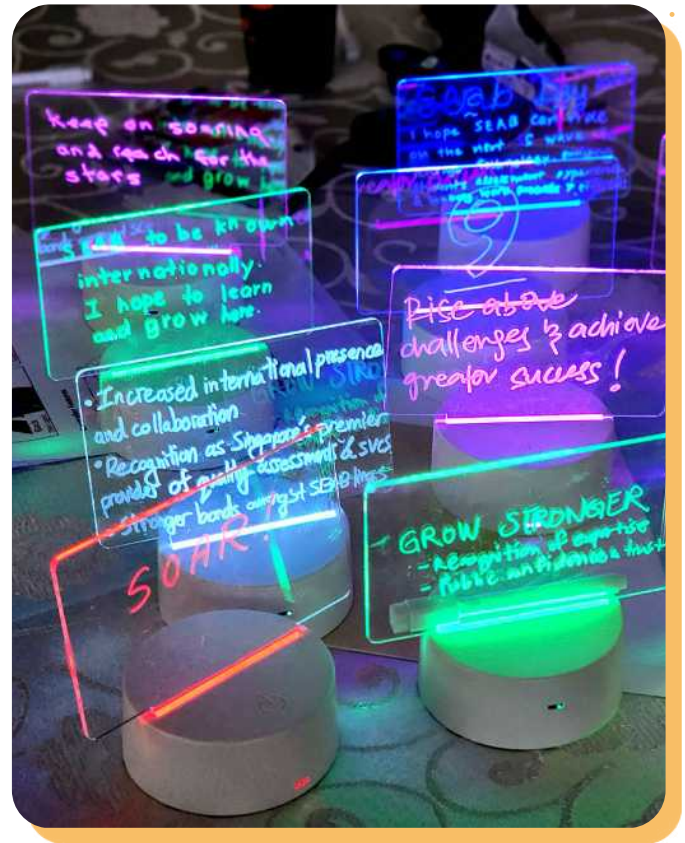
## Performances

The celebrations ended on a high note with performances by talented staff. A staff from the Assessment Planning and Development Division presented a dance item, 'Dreamland', wishing that all staff reach high and grow, seek far and go, look deep and see, dream big and be!

We also had colleagues performing a traditional Chinese music piece, 《兰花花叙事曲》, that has been well-received by generations around the world.

Finally, staff also presented a duet of our very own SEAB song entitled "Walk with Me", accompanied by colleagues playing the piano and the violin.

Truly, some dreams only soar with us together.



Displaying our achievements, hopes and dreams.



Performances by staff.



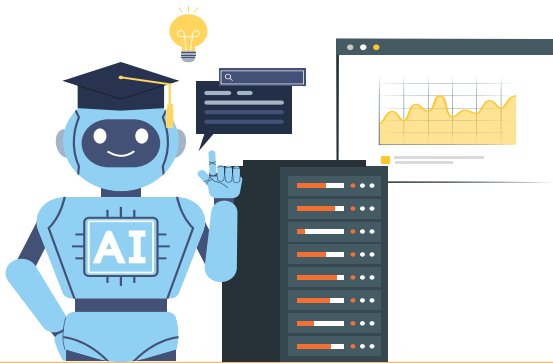
Family photo of SEAB staff celebrating our 19th Anniversary.

# SEAB SEMINAR 2023

23 June 2023

EMBRACE CHANGE;  
REIMAGINE OUR FUTURE

On 23 June 2023, SEAB held its annual SEAB Seminar centred on the theme of “Embrace Change; Reimagine Our Future”. The seminar aimed to:



- 01 Explore the transformative impact of technology, in particular, Artificial Intelligence (AI), on our work;
- 02 Empower staff with the knowledge of our digital initiatives and vision to adapt to the evolving landscape of education and assessment; and
- 03 Reflect on the deeper purpose and meaning of our work.

Let us take a look at the highlights from the seminar.

## Exploring the potential of AI

The event commenced with an informative session by Dr Victor Ong, Lead Data Scientist, Data Science and AI Division (DSAID), GovTech. He shared valuable insights about AI’s development, potential, and limitations, while also presenting various real-world use cases to demonstrate its transformative impact on education. Dr Ong’s presentation helped SEAB staff recognise the significant potential of AI in reshaping assessment processes, fostering personalised learning experiences, and optimising examination operations.



Sharing by Dr Victor Ong, Lead Data Scientist, GovTech.

## SEAB's Digitalisation Plan 3.0

Following this, Mr Louis Woon, Senior Assistant Director, Information Technology Department, SEAB, shared the next phase of SEAB's Digitalisation Plan. He gave an overview of Digital Government Transformation and what it entailed, explaining that it did not merely involve SEAB embarking on various information and communication technology (ICT) projects. Rather, digital transformation entailed deeper and pervasive changes in organisation mindset, culture and practices, as well as the building of capabilities that have to be sustained over a period of time.

On SEAB's digital vision, Mr Woon shared that SEAB's Digitalisation Plan 3.0 would focus on:

- 01 Business model transformation
- 02 Strengthening data organisation and sharing to better exploit data
- 03 Using AI to transform core business
- 04 Exploiting Science and Technology to augment SEAB's operations
- 05 Developing service journeys for processes
- 06 Adopting agile delivery for IT processes and beyond



*Sharing of SEAB's Digitalisation Plan by Mr Louis Woon, Senior Assistant Director, Information Technology Department.*

## Purpose in work and the next lap for SEAB

Next, Mr Yue Lip Sin, Chief Executive (CE), SEAB took the stage to deliver his speech. He asked staff to reflect on the meaning and purpose of examination and assessment work and how we play a part in every student's learning journey. He highlighted key challenges impacting the organisation, noting that SEAB could follow the example of former Korean navy Admiral Yi Sun-sin in tackling them. CE recounted how Admiral Yi's exemplary leadership, strategic acumen, well-trained army, and astute use of technology allowed him to win naval battles despite great odds.

CE also urged staff to consider possible disruptions that could impact SEAB's core business. In reimagining the future for SEAB, CE suggested the need to leverage the affordances of technological changes and

evolving educational practices to make assessment progressive and relevant, including the appropriate assessment of emerging 21st century competencies. He highlighted the need to exploit technologies like AI and robotics to move manual examination processes towards automation. He added that SEAB should move beyond national examinations, which are primarily focused on Assessment of Learning (AoL), and involve Assessment for Learning (AfL) and Assessment as Learning (AaL) as well.

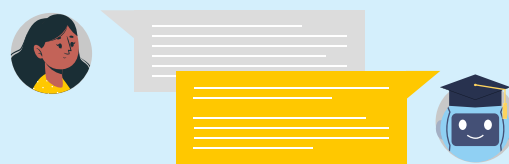
To conclude his speech, CE took inspiration from the natural world, by highlighting the admirable qualities of emperor penguins and how they offered valuable lessons for SEAB's journey ahead. He commended the penguins' teamwork when huddling together to overcome the harsh Antarctic cold, and their determination and resilience in traversing long distances of up to 80km in search of food. He also marvelled at the resilient nature of the penguins, displayed through their feat of diving more than 500m deep for over 20 minutes in a single breath.

### SEAB's Digital Initiatives

Another key highlight of the seminar was the four concurrent sharing sessions on SEAB's digital initiatives. Staff were divided into four groups and attended the sharing sessions on a rotational basis. The presentations were designed to be engaging and interactive, utilising methods such as text-to-speech videos, blackout rooms, hands-on demonstrations, and mentimeter polls.

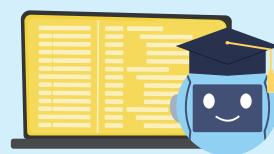


Mr Yue Lip Sin, Chief Executive, Singapore Examinations and Assessment Board.



### Customer Service Transformation

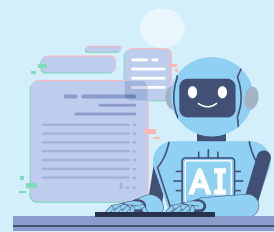
This session demonstrated how SEAB leveraged technology to enhance customer service, for example, by using a VICA (Virtual Intelligent Chat Assistant) to address queries, and Robotic Process Automation to organise email correspondences on public queries.



### Automated Marking

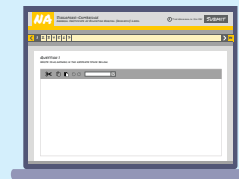
Staff were shown an overview of how large language models like Bidirectional Encoding Representations with Transformation (BERT) and Embeddings from Language Model (ELMo) can be utilised to automate marking, improve efficiency and reduce the burden on human markers.





### Adaptive Testing

Staff learned about the benefits of adaptive testing that is currently used in SEAB's Assessment for Learning tools for schools, where the difficulty of test questions dynamically adjusts upwards or downwards based on the learner's responses, leading to a more personalised and effective assessment experience.



### e-Examinations

This session delved into SEAB's implementation of electronic examinations and the use of rich media such as videos, animation, and interactive simulations, to allow for more engaging and innovative examination experiences whilst enhancing the authenticity of questions.

## Dialogue with Senior Management

Staff were also invited to "Ask Management Almost Anything". The questions were diverse, ranging from SEAB's use of technology, resource constraints to work-life balance. Senior Management team was candid and open in their sharing.



Dialogue with Senior Management

## A hands-on experience: Generative AI activity

The seminar concluded on a high note with a fun hands-on table activity involving the use of Generative AI. Staff were tasked with taking a group photo and using Canva AI to edit it creatively. This was followed by the use of ChatGPT to generate an accompanying caption aligned with the seminar's theme, 'Embrace Change; Reimagine Our Future'. This activity not only allowed staff to experiment with AI technologies, it also sparked creativity, collaboration, as well as laughter and excitement over the creations.



Staff experimenting with the use of AI technologies.

## Embrace Change; Reimagine Our Future

SEAB Seminar 2023 achieved its objectives of promoting an understanding of the impact of technology on our work, covering key digital initiatives undertaken by SEAB and encouraging staff to reflect on the purpose and meaning behind our roles. As SEAB continues to look ahead in an ever-changing education landscape, the seminar was beneficial as a catalyst for staff to embrace change and reimagine our future.



All staff taking a group photo to commemorate the 2023 SEAB Seminar.

# Promoting a Healthier Lifestyle in SEAB

## Participation in J.P. Morgan Corporate Challenge

The Singapore Examinations and Assessment Board (SEAB) is committed to promoting a healthy lifestyle for its staff. Various events and activities are organised to achieve this objective. For instance, there are varied interest groups for badminton, table tennis, running and the performing arts. Each year, two main events are organised. The SEAB Active Day, comprising several games and sport activities, is organised as part of our agency's National Day celebrations. We also participate in the annual J.P. Morgan Corporate Challenge (JPMCC) which offers running and walking categories, catering to SEAB staff across varied age groups and fitness levels.

The JPMCC pulls together individuals from private and public sector organisations for a 5.6-kilometre route along our nation's picturesque cityscape. SEAB started participating in this event in April 2005, a year following our establishment as a Statutory Board. As there were many new staff who had joined the organisation, the SEAB organising team saw the JPMCC as a suitable event to build a sense of belonging and teamwork.

Today, SEAB continues to encourage staff participation in the JPMCC to foster team bonding among staff, as well as promote staff welfare and a healthy lifestyle. Fuelled by the core values of commitment, professionalism, and teamwork, we strive towards better race timings each year as one SEAB.

We invited some SEAB staff who have participated actively in the JPMCC to share their reflections.

### Yiow Kok Seng, participant since 2012

Participating in the JPMCC gives me a reason to exercise. I would usually have a few training sessions before the actual run. I would not want to finish last.

On the actual day, I would usually run alongside 1 to 2 colleagues. We will encourage each other whenever we want to slow down and walk. Thanks to this, we can keep running throughout the race. Bringing this to the workplace, such peer encouragement is important as it gets us through crises because we know we are not facing anything alone.



2013 JPMCC – Sun-drenched but happy staff. Kok Seng, far left in red.

## Rajenthiran Sellan, participant since 2014

Altogether, I have taken part in the JPMCC five times. I participate in it because it is a way to bond with SEAB colleagues from other divisions, and a good way to exercise. Walking is an exercise that I engage in frequently, and I appreciate that JPMCC caters to walkers as well. There are moments for us to interact and laugh together, especially before and after the race.

I do not normally interact with SEAB colleagues during physical exercise (except for SEAB Active Day), so it is a novel setting for me to get to know them. There is always a supportive atmosphere, and it is great to see so many work organisations in Singapore (and so many people from each of these organisations) contributing to charity and having fun.

I look forward to participating in the future years. The distance is manageable, and everyone can participate at their own pace. If you do not wish to run, you can simply walk – just like me.



2014 JPMCC - A strong turn-out during the year of SEAB's 10th anniversary. Rajenthiran, third row from the bottom, fifth from right.



**Wong Chee Meng, Abel,  
participant since 2006**

I always look forward to taking part in the JPMCC. It is my only running event of the year as the distance is manageable. I am happy running with my colleagues, and I want to maintain my stamina even though I am not a regular runner.

I treat my participation in the JPMCC the same way I do for the IPPT. If I have not met my expected timing, I will need to perform remedial training in preparation for the next JPMCC.

The JPMCC is not just a running event. It also helps to connect people. I feel good participating because I get to mingle with and learn more about my colleagues. I also recall that one year, I managed to bump into a few of my friends running for their organisations. I was surprised and happy to see them because we do not run and hardly meet up due to our schedules. Following the run, we stayed back to catch up with each other.



2018 JPMCC – SEAB staff demonstrate their unwavering determination to finish the race, even with an imminent downpour before the start. Abel, second row from bottom, second from right.

**Phillip Hou, Team captain and participant since 2005**

As captain, I hold a responsibility to bring SEABlings together to participate in the JPMCC. I will tell them: 'Hey, it will help to strengthen your mind and body. You will never run alone, and there will be a goodie bag and finisher tee to bring home after the race.'

I have personal goals and will strive to meet my personal best finishing timing. My timing is however dependent on the race route. The route could have a mix of flat terrain and hilly slopes, and this could result in my finishing timing ranging 25-30 minutes. The weather does play a part as well.

Each year, I end my race with a sense of satisfaction. There is always a strong camaraderie present, as each division participates in friendly competition with each another to see who has the best timings.



2022 JPMCC – Our first JPMCC after COVID-19 restrictions were lifted. Phillip, second row, second from right.

## Nordin Salleh, participant since 2016

I have participated to keep myself healthy and to partake in a common activity with colleagues from other divisions.

The JPMCC allows us to test our physical endurance and limits. During the run, we will keep teamwork in mind, by encouraging those who are slower runners and by keeping pace with them. By motivating each other, we work towards completing the run together and to meet after the race at the finishing point.

This year is my last year representing SEAB as I am retiring next year. I have always enjoyed running with my fellow colleagues. I hope that SEAB will continue supporting the JPMCC, running together and enjoying each other's company.



2023 JPMCC – SEAB staff, including senior management, participate in each year's JPMCC. Nordin, third from left.



## Alicia Yeow, participant since 2014

My first run in 2014 started with a big bang – SEAB was drumming up the 10th Anniversary celebration and the run was a part of the big celebration. All runners received an in-house designed tee to commemorate SEABlings' run with SEAB's 10th year running.

Since 2014, I have participated in five or six JPMCC runs.

Rain or shine, I do enjoy the camaraderie with my colleagues from all the divisions in SEAB – JPMCC is the only time we all get to enjoy and experience the same activity from the start to its end as one SEAB despite the different flag off times attached to each wave. To me, this is symbolic of the corporate unity that goes beyond physical time and space.

At the end of the run, we'll be sure to gather as one SEAB at the finishing point to share the joy and fulfilment of having overcome the same challenge, and the photographs we collected made these moments count. Is this not how we celebrate and commemorate our victories after overcoming our work challenges in SEAB too?



2023 JPMCC – SEAB staff, including senior management, participate in each year's JPMCC. Alicia, far right in black.



## **Singapore Examinations and Assessment Board**

### **Our Vision:**

A trusted authority in examinations and assessment,  
recognised locally and internationally.

### **Our Mission:**

We assess educational performance so as to certify individuals, uphold  
national standards and advance quality in assessment worldwide.

### **Our Values:**

Integrity | Value people | Commitment | Professionalism | Teamwork