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VIRTUAL EXPERIENCE

# Assessing Graduate Attributes with Blue 360

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Created by Rfourtytwo from Noun Project

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# Thanks for joining us!

Evangeline CHENG

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# Agenda

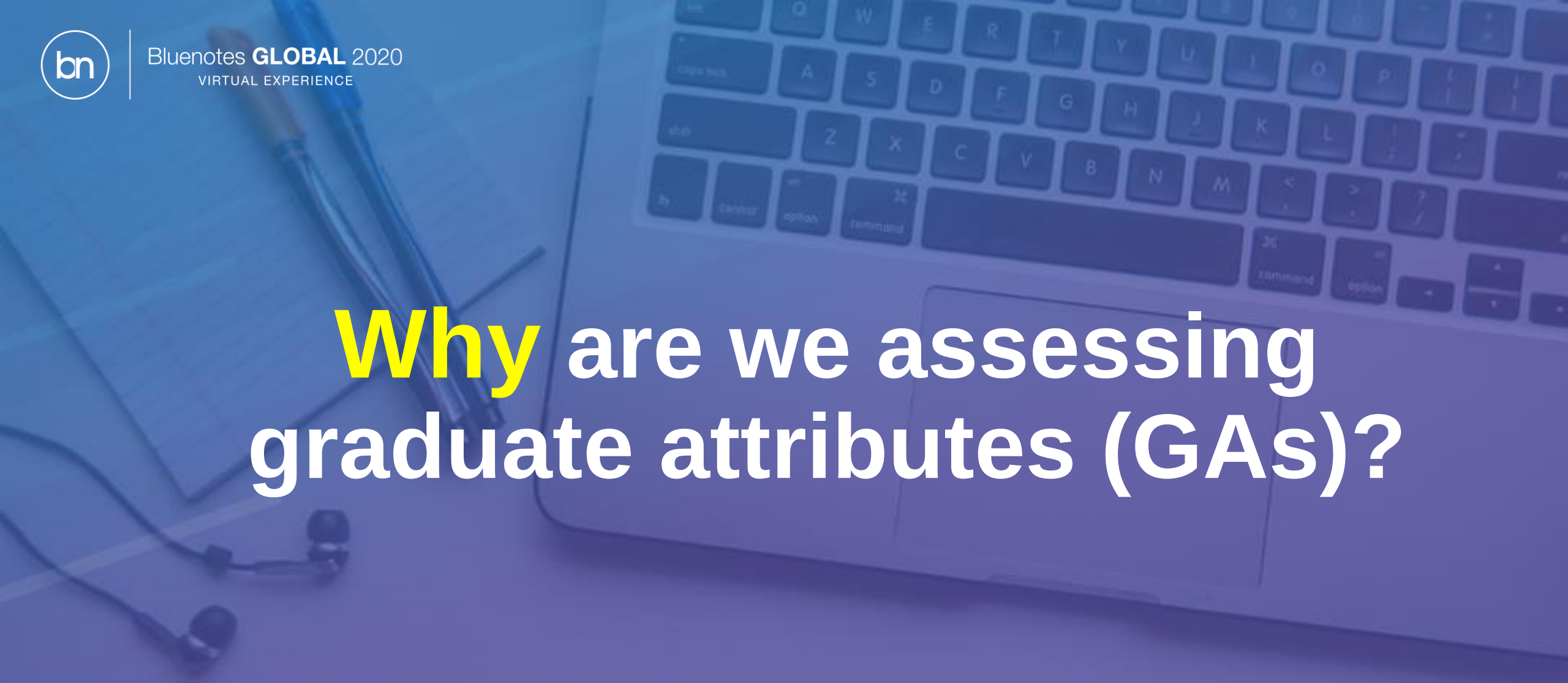
1. **Why** are we assessing graduate attributes (GAs)?

1. **What** did we do to assess GAs?

1. **How** helpful is this assessment of GAs?

# Caveat

This sharing is based on a **pilot study**.



# Why are we assessing graduate attributes (GAs)?

# Singapore Polytechnic (the oldest polytechnic in SG)

**ESTABLISHED**

1954

**COURSES**

37 Full-Time Diplomas

3 Common Entry Programmes

Polytechnic Foundation Programme

492 CET Programmes

**GRADUATE OUTPUT**

212,694 Graduates

**STUDENT ENROLMENT**

13,568 Full-time Diploma students

314 Polytechnic Foundation Programme students

62,123 CET training places

**A polytechnic offers multiple pathways to learners (teens & adults)**

- **Students can find jobs with a diploma**
- **Students can go on to university with their diploma**
- **Students can choose to take a part-time diploma whilst working**

# Are our graduates ready for work, for the world, and for life?

# Are our graduate attributes aligned with global shifts?

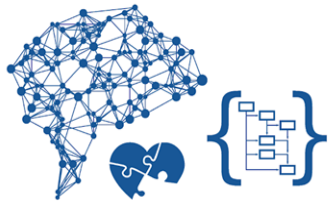
# Global Shifts (I)

'The 10 skills you need to thrive in the Fourth Industrial Revolution' (WEF, 2016)



## Top 10 skills

| in 2020 | in 2015 |
|---|---|
| 1. Complex Problem Solving | 1. Complex Problem Solving |
| 2. Critical Thinking | 2. Coordinating with Others |
| 3. Creativity | 3. People Management |
| 4. People Management | 4. Critical Thinking |
| 5. Coordinating with Others | 5. Negotiation |
| 6. Emotional Intelligence | 6. Quality Control |
| 7. Judgment and Decision Making | 7. Service Orientation |
| 8. Service Orientation | 8. Judgment and Decision Making |
| 9. Negotiation | 9. Active Listening |
| 10. Cognitive Flexibility | 10. Creativity |



Source: Future of Jobs Report, World Economic Forum

# Global Shifts (II)

The realities of the Industry 4.0 will require IHLs to invest heavily in the development of new agile learners in future workforces by tackling improvements to education and training systems (World Economic Forum, 2018).

Even Programme for International Student Assessment is embracing holistic measurements of education to tackle creative thinking, trying to find ways to assess, and have students assess flexibility in thinking (Volante et al, 2019).

WORLD ECONOMIC FORUM

PISA

# Global Shifts (III)

In the EU, there is a recognition that **broader skills are needed to ensure graduate employability** (Volante & Ritzen, 2016).

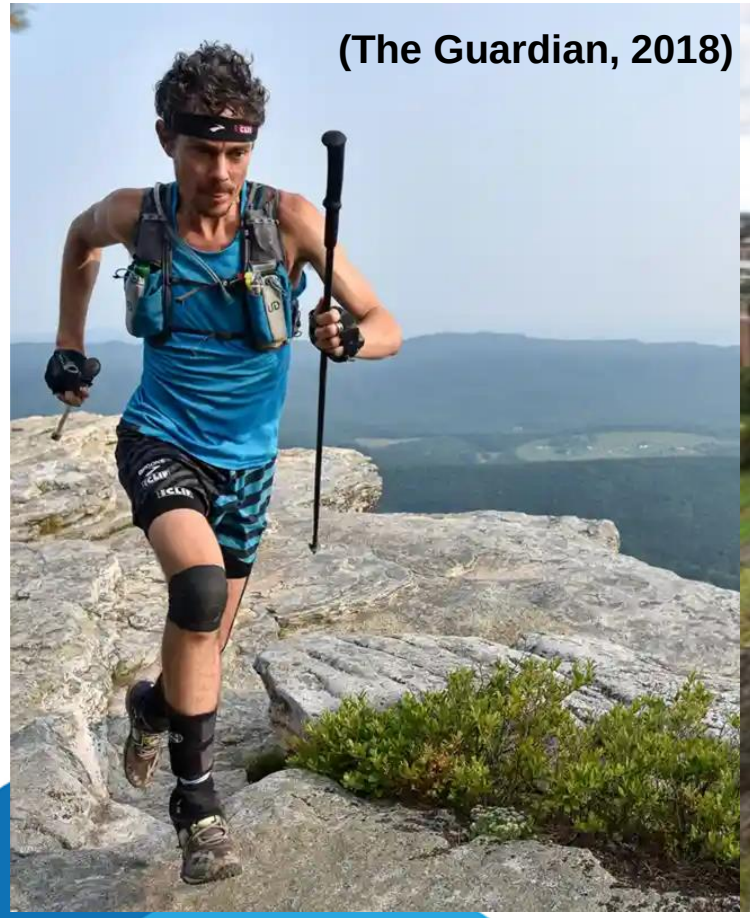
In NZ, a 'Future Ready Graduates' website provides a **'4Es of Employability' framework** to help students and teachers develop transformational practices.

In Singapore, an IPS report proposed a merger of the Ministry of Education with Ministry of Manpower (Yahya, 2019). Singapore has a **'SkillsFuture Generic Skills & Competencies' framework**.

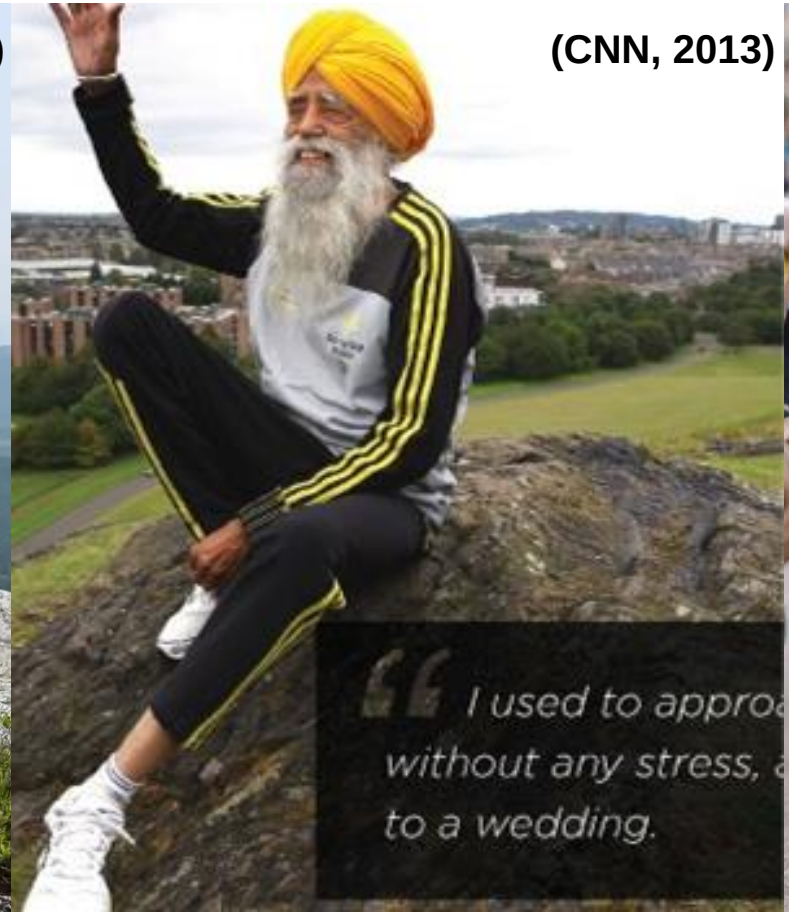
Future Ready Graduates

SKILLSfuture SG

# An Ideal Graduate Is a Runner for Life, Not Just a Race Finisher



(The Guardian, 2018)




(CNN, 2013)

(Run Society,

# An Ideal Graduate Is a Runner for Life, Not Just a Race Finisher

Created by jai
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- Does s/he have the stamina and motivation to complete never-ending marathons across diverse terrains?
- Does s/he tailor his/her training regime according to his/her race?
- How does s/he train? Is it sustainable?
- Does s/he help others along the way?
- Does s/he race fairly?
- Does s/he know how to plan, manage, review and evaluate his/her own races?

# SP Graduate Attributes (wef July 29, 2020)

1. Competency & Versatility
2. Communication & Collaboration
3. Creativity, Innovation & Enterprise
4. Ethics & Responsible Citizenry
5. Self-Directedness & Personal Effectiveness
6. Global Mindset

# How do we *assess* graduate attributes?

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# Multisource Feedback (MSF)

360-degree feedback, used widely since the 1990s amongst Fortune 500 companies, gathers feedback from supervisors, co-workers, subordinates, and other relevant third parties on one's performance in a holistic way.

From 2019, all medical interns in New Zealand will need to go through MSF at some stage during their two training years (Medical Council of NZ, n.d.). Feedback is gathered from a doctor's colleagues on their non-technical skills such as their professionalism, communication and teamwork.

FORTUNE 500

Te Kaunihera Rata o Aotearoa | Medical Council of New Zealand

Multisource feedback

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# Multisource Feedback (MSF)

Students, like professionals, may benefit from gaining a clearer understanding of their personal traits and how it compares to established norms (Pappas, 2013).

The Johari Window has been used extensively as a training tool to enhance self-awareness when one examines each of the quadrants with feedback given by others. This evaluation from multiple sources could help students understand their strengths and areas of improvement in the form of MSF.

| | known to self | not known to self |
|---|---|---|
| known to others | 1 Open / Free Area | 2 Blind Area |
| not known to others | 3 Hidden Area | 4 Unknown Area |

invite feedback →

disclose information ↓

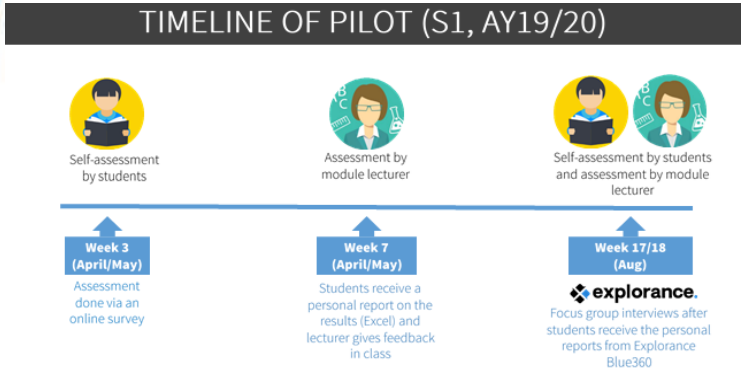
The Johari Window (adapted from Luft & Ingham, 1961)

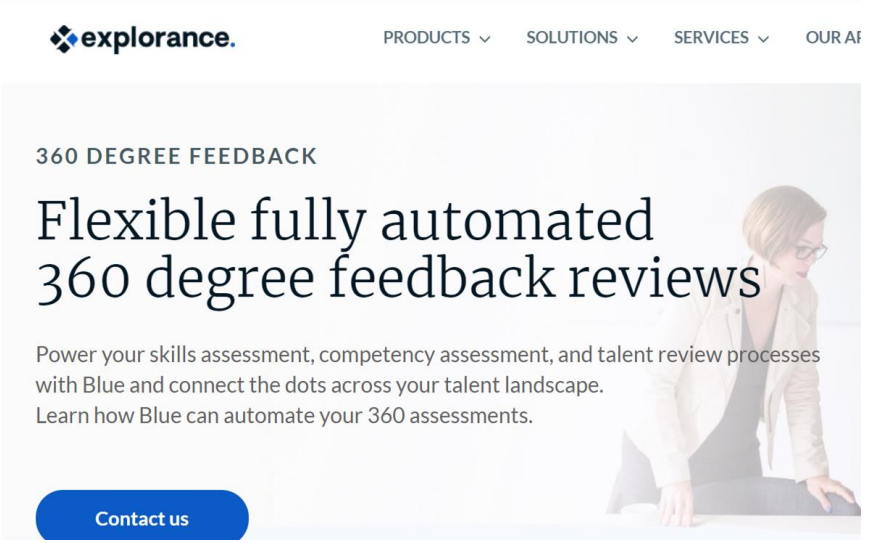
# Multisource Feedback (MSF)

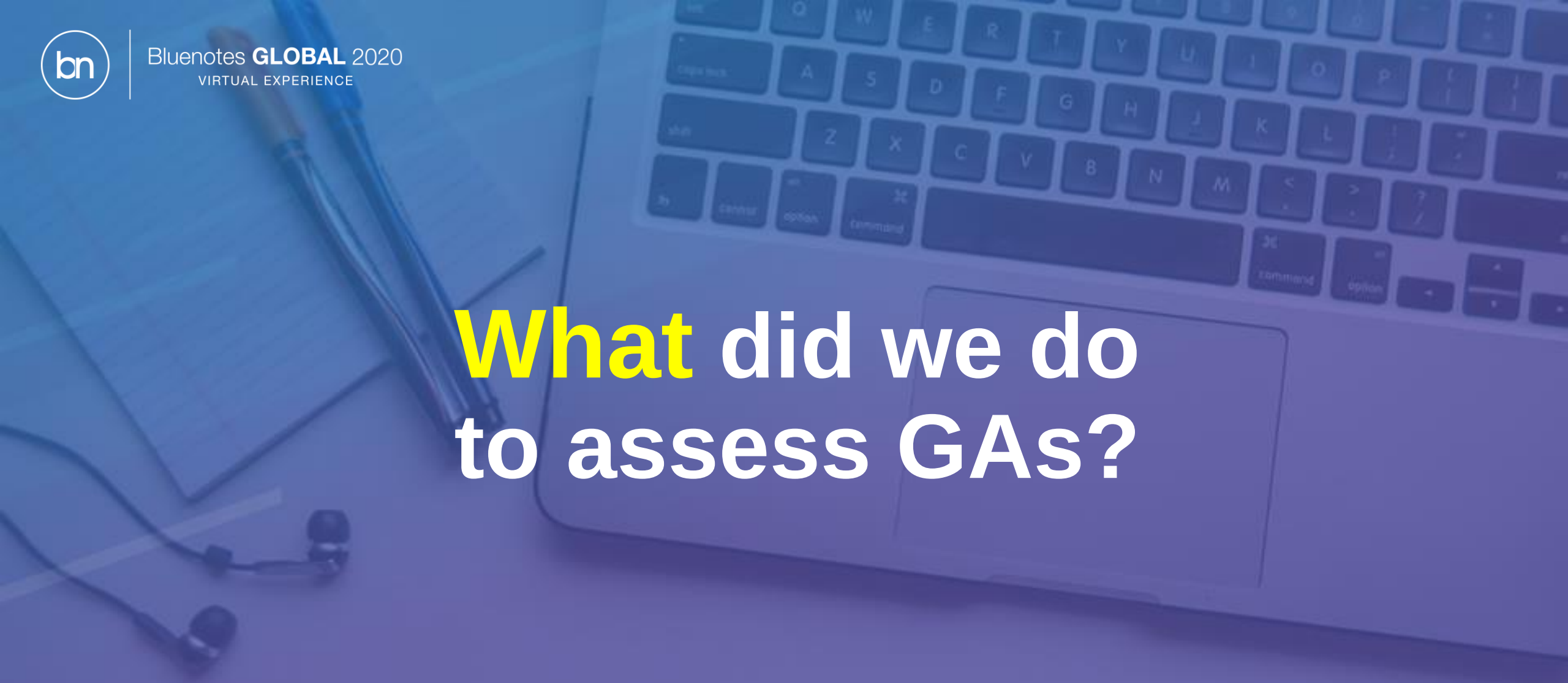
One such MSF platform in the industry is Explorance's Blue 360 platform that allows customisation of the following depending on the data needed:

- "Downward" feedback i.e., from supervisors to employees;
- "Upward" feedback i.e., employees to supervisors;
- Peer evaluation;
- Self-evaluation of one's performance

Literature Review | Literature Review

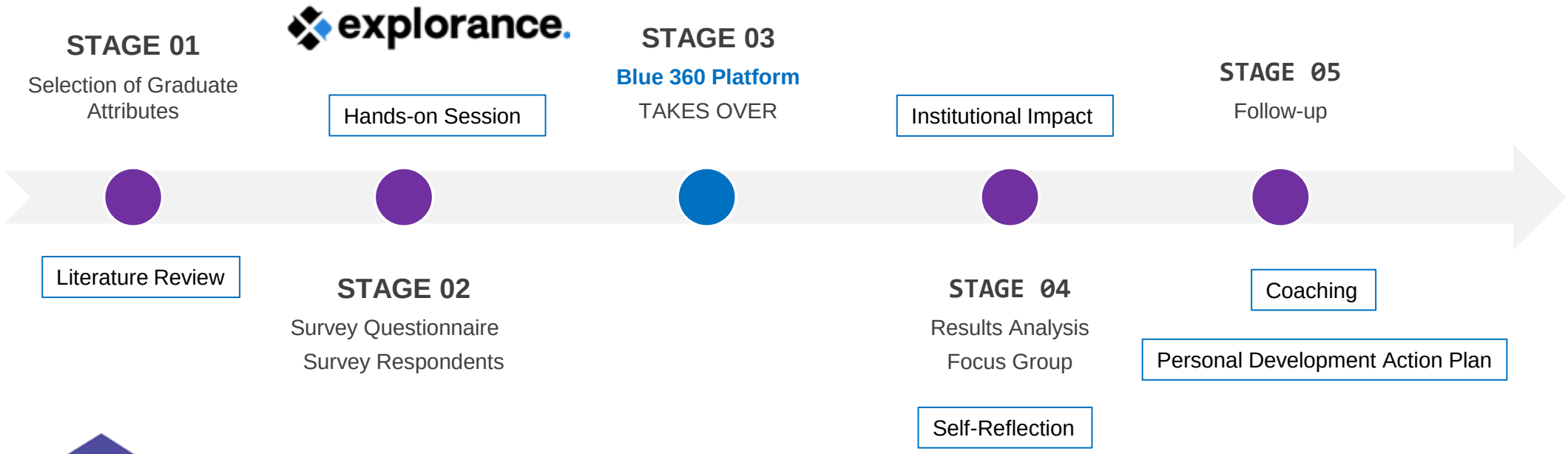


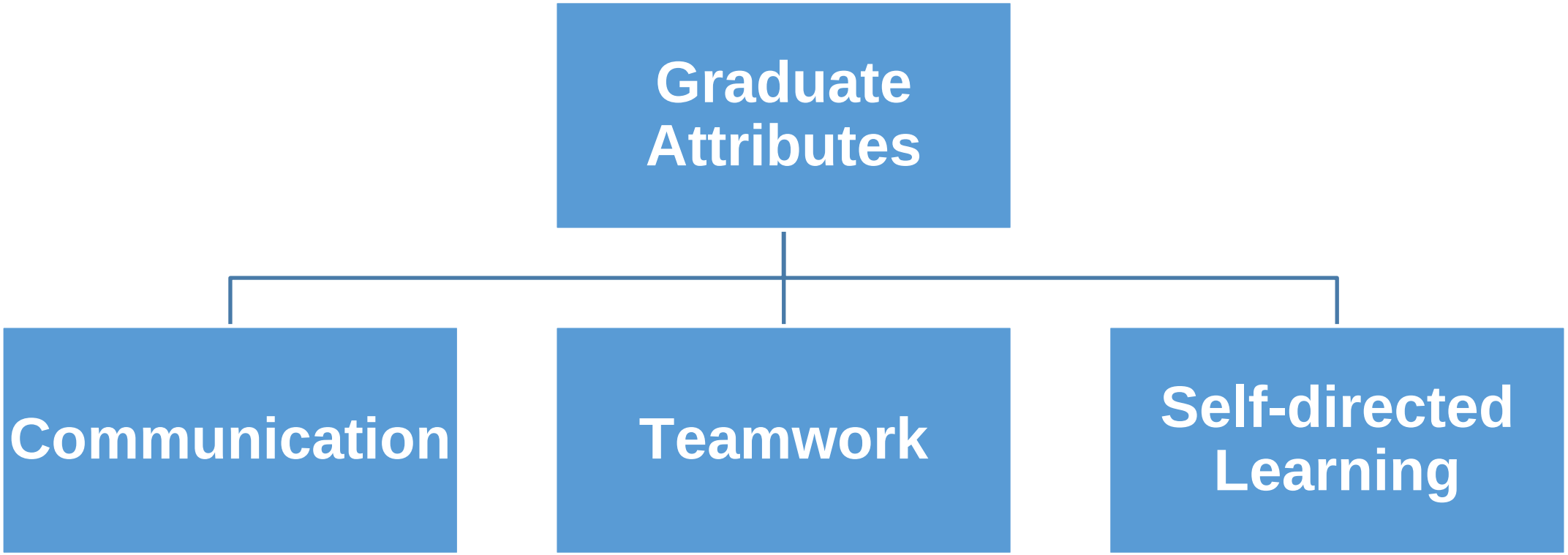





# What did we do to assess GAs?

# PROCESS ROADMAP




Graduate Attributes
Communication
Teamwork
Self-directed Learning

| | COMMUNICATION | 1 | 2 | 3 |
|---|---|---|---|---|
| Q1 | I'm able to tailor my message according to the purpose, audience and context (PAC) accurately. | Seldom | Sometimes | Always |
| Q2 | I'm able to use appropriate verbal (e.g. tone and word choice) and non-verbal (body language) cues to complement the exchange of ideas skilfully. | Seldom | Sometimes | Always |
| Q3 | I'm able to articulate views both in writing and speaking using Standard English clearly and persuasively. | Seldom | Sometimes | Always |
| | **TEAMWORK** | **1** | **2** | **3** |
| Q4 | I'm able to solicit, listen, share and adopt ideas collaboratively. | Seldom | Sometimes | Always |
| Q5 | I'm able to make important contribution that improves my team's work. | Seldom | Sometimes | Always |
| Q6 | I'm able to evaluate my team's effectiveness (by giving constructive feedback, making sure that the team is making appropriate progress etc.) proactively to achieve the team's goals. | Seldom | Sometimes | Always |
| Q7 | I care that my team does excellent work, even if there is no additional reward. | Seldom | Sometimes | Always |
| Q8 | I'm able to resolve differences and/or conflicts tactfully in a timely manner. | Seldom | Sometimes | Always |
| | **SELF-DIRECTED LEARNING** | **1** | **2** | **3** |
| Q9 | I believe that failures and challenges help me to grow. | Seldom | Sometimes | Always |
| Q10 | I believe that I am able to do well for this module if I put in effort and do not give up trying. | Do not believe | Somewhat believe | Totally believe |
| Q11 | I believe that success of others is an opportunity to keep learning. | Do not believe | Somewhat believe | Totally believe |
| Q12 | I take the responsibility to set my learning goals and identify my learning gaps. | Unable to | Somewhat able to | Able to |
| Q13 | I take the responsibility to explore alternative learning strategies to achieve my learning goals based on self-reflection and feedback from others. | Unable to | Somewhat able to | Able to |
| Q14 | I take the responsibility to extend learning by doing research and applying the learning within and/or beyond school curriculum (formal and informal contexts). | Unable to | Somewhat able to | Able to |

# Survey Respondents

102 students

5 classes of various disciplines

4 lecturers

# User-friendly Platform

Automated Email Reminders

Email is sent to students

Email is sent to lecturer

Survey closes (after reminders are sent)

1. Individual report is sent to student via email.
2. Class report is sent to lecturers via email.
3. Administrators given rights to download institutional reports for analysis.

# Automated Data Collection

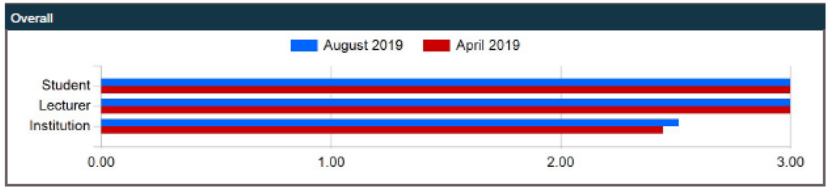
- Comparative gap analysis
  - student self-rating vis-à-vis lecturer rating per survey question
  - aggregate student self-rating vis-à-vis aggregate lecturer rating and institution rating

- Strengths and areas of improvement

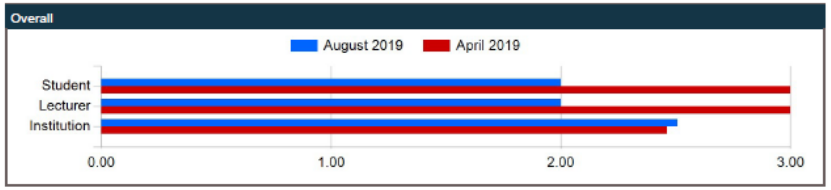
Personal Report

## Self Directed Learning

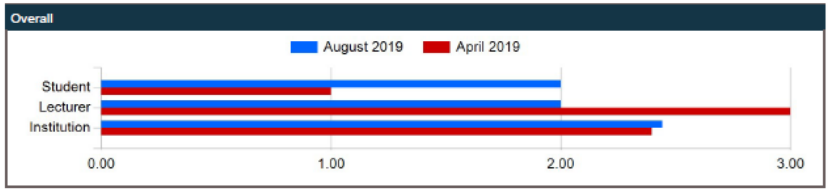
**Has the belief that failures and challenges help an individual grow**



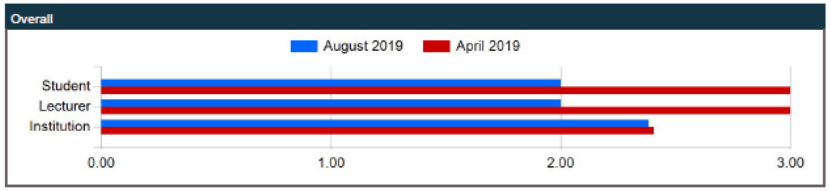

**Has the belief that they will be able to do well for this module if they put in the effort and do not give up trying**




**Has the belief that success of others is an opportunity to keep learning**




**Takes responsibility by setting learning goals and identifying learning gaps;**






# Comparative Gap Analysis

## Self-ratings vs Lecturer Ratings (Question Per Se)

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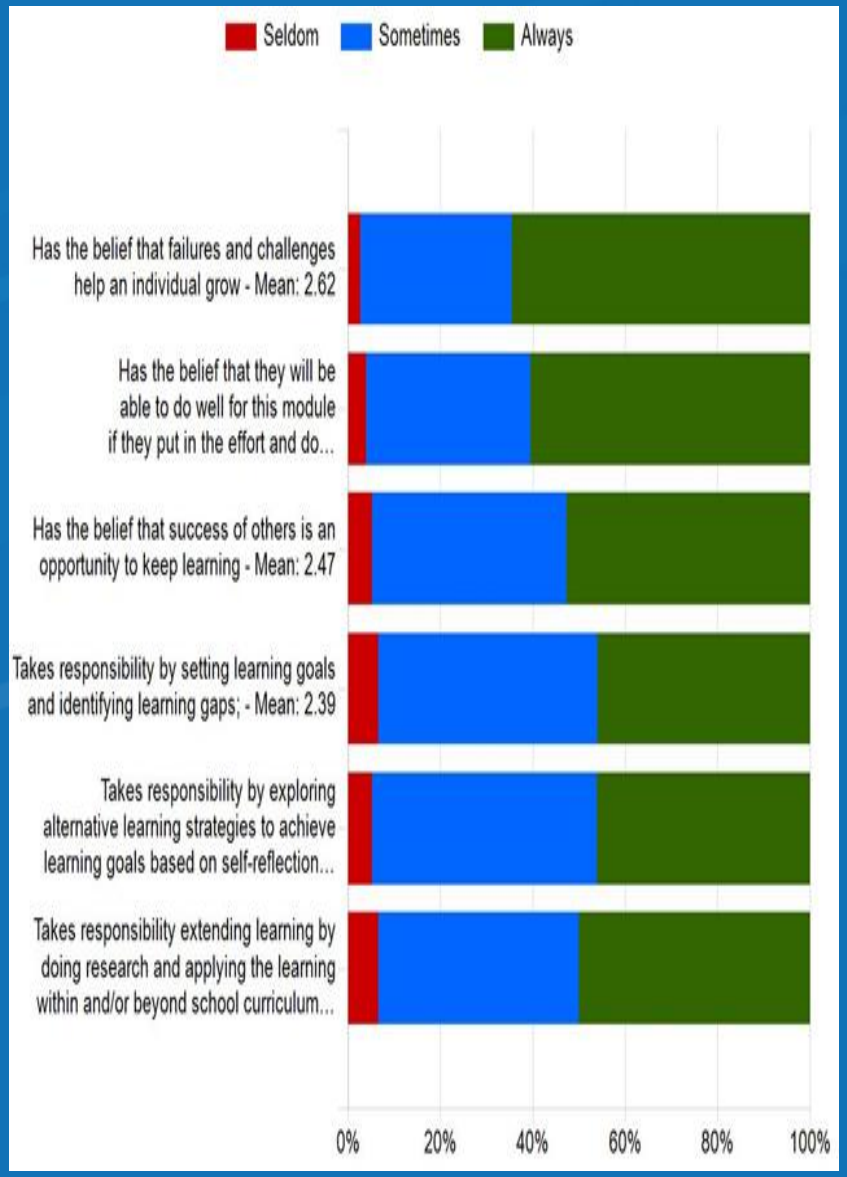
Personal Report



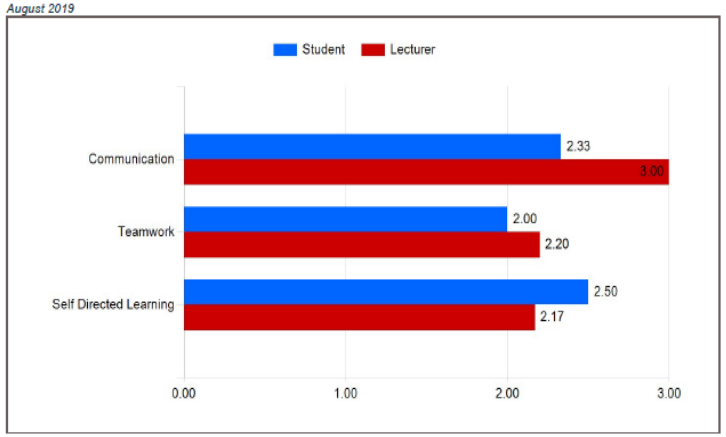

# Lecturer Ratings

(Breakdown by Question)

Personal Report

**Gap Analysis (continued)**

*August 2019*




**Student vs Lecturer**

| Rank | Competency | Gap |
|---|---|---|
| 1 | Communication | -0.67 |
| 2 | Teamwork | -0.20 |
| 3 | Self Directed Learning | 0.33 |



# Comparative Gap Analysis

## Self-ratings vis-à-vis Lecturer Ratings

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Personal Report

## Behavioural Ranking

### Strengths and Improvements

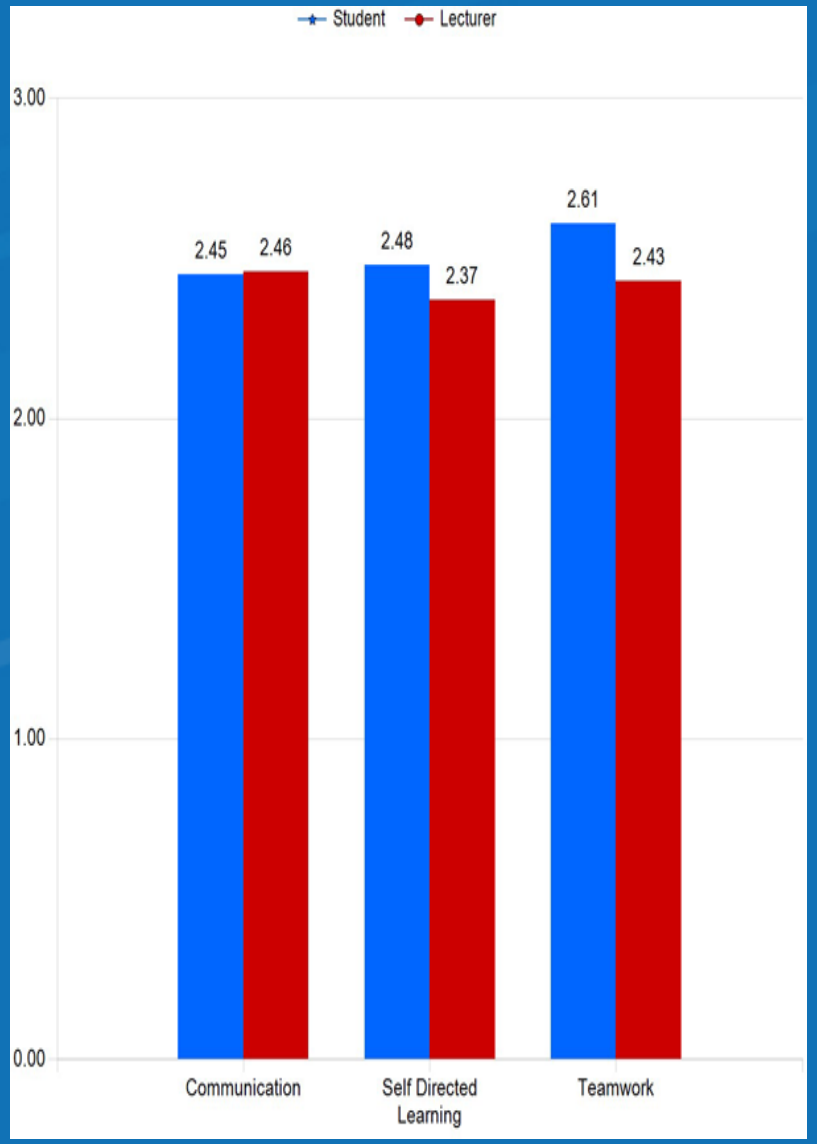
| Strengths | | | August 2019 | April 2019 |
|---|---|---|---|---|
| 1 | Is able to tailor message according to the purpose, audience, and context (PAC) accurately | Communication | 3.00 | 3.00 |
| 2 | Has the belief that failures and challenges help an individual grow | Self Directed Learning | 3.00 | 3.00 |

| Improvements | | | August 2019 | April 2019 |
|---|---|---|---|---|
| 1 | Is able to solicit, listen, share and adopt ideas collaboratively | Teamwork | 2.00 | 1.00 |
| 2 | Is able to make important contribution that improves team's work | Teamwork | 2.00 | 1.00 |



# Strengths & Improvements

Institution Report




# Comparative Gap Analysis

## Aggregate Ratings Summary

Institution Report

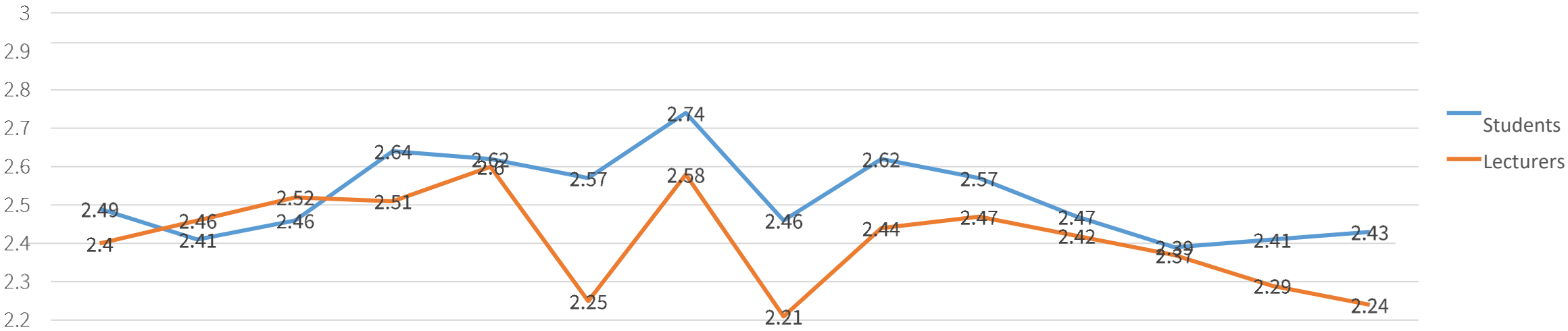
**Self Directed Learning**

| Has the belief that failures and challenges help an individual grow | | | | |
|---|---|---|---|---|
| Class | Mean | Seldom | Sometimes | Always |
| DASE_FT_2A_02 | 2.32 | 4.55% | 59.09% | 36.36% |
| DCHE_FT_1A_02 | 2.58 | 0.00% | 42.11% | 57.89% |
| DHRMP_FT_3A_23 | 2.91 | 0.00% | 8.70% | 91.30% |
| GD_SIP_SPOT_304 | 2.35 | 5.00% | 55.00% | 40.00% |
| JP02_FT_1A_22 | 1.94 | 11.11% | 83.33% | 5.56% |
| **Has the belief that they will be able to do well for this module if they put in the effort and do not give up trying** | | | | |
| Class | Mean | Seldom | Sometimes | Always |
| DASE_FT_2A_02 | 2.45 | 13.64% | 27.27% | 59.09% |
| DCHE_FT_1A_02 | 2.58 | 0.00% | 42.11% | 57.89% |
| DHRMP_FT_3A_23 | 2.74 | 4.35% | 17.39% | 78.26% |
| GD_SIP_SPOT_304 | 2.50 | 0.00% | 50.00% | 50.00% |
| JP02_FT_1A_22 | 2.00 | 11.11% | 77.78% | 11.11% |
| **Has the belief that success of others is an opportunity to keep learning** | | | | |
| Class | Mean | Seldom | Sometimes | Always |
| DASE_FT_2A_02 | 2.23 | 4.55% | 68.18% | 27.27% |
| DCHE_FT_1A_02 | 2.58 | 0.00% | 42.11% | 57.89% |
| DHRMP_FT_3A_23 | 2.78 | 0.00% | 21.74% | 78.26% |
| GD_SIP_SPOT_304 | 2.50 | 0.00% | 50.00% | 50.00% |
| JP02_FT_1A_22 | 1.94 | 11.11% | 83.33% | 5.56% |
| **Takes responsibility by setting learning goals and identifying learning gaps;** | | | | |
| Class | Mean | Seldom | Sometimes | Always |
| DASE_FT_2A_02 | 2.50 | 9.09% | 31.82% | 59.09% |
| DCHE_FT_1A_02 | 2.00 | 0.00% | 100.00% | 0.00% |
| DHRMP_FT_3A_23 | 2.70 | 0.00% | 30.43% | 69.57% |
| GD_SIP_SPOT_304 | 2.50 | 5.00% | 40.00% | 55.00% |
| JP02_FT_1A_22 | 2.06 | 22.22% | 50.00% | 27.78% |
| **Takes responsibility by exploring alternative learning strategies to achieve learning goals based on self-reflection and feedback from others;** | | | | |
| Class | Mean | Seldom | Sometimes | Always |
| DASE_FT_2A_02 | 2.09 | 13.64% | 63.64% | 22.73% |
| DCHE_FT_1A_02 | 2.05 | 0.00% | 94.74% | 5.26% |
| DHRMP_FT_3A_23 | 2.70 | 0.00% | 30.43% | 69.57% |
| GD_SIP_SPOT_304 | 2.50 | 5.00% | 40.00% | 55.00% |
| JP02_FT_1A_22 | 2.06 | 27.78% | 38.89% | 33.33% |
| **Takes responsibility extending learning by doing research and applying the learning within and/or beyond school curriculum (formal and informal contexts)** | | | | |
| Class | Mean | Seldom | Sometimes | Always |
| DASE_FT_2A_02 | 1.86 | 13.64% | 86.36% | 0.00% |
| DCHE_FT_1A_02 | 2.00 | 0.00% | 100.00% | 0.00% |
| DHRMP_FT_3A_23 | 2.70 | 0.00% | 30.43% | 69.57% |
| GD_SIP_SPOT_304 | 2.50 | 5.00% | 40.00% | 55.00% |
| JP02_FT_1A_22 | 2.06 | 22.22% | 50.00% | 27.78% |

# Comparative Gap Analysis

## Lecturer Ratings (Question Per Se)
## Breakdown by Class

# How helpful is this assessment of GAs?




| | COMMUNICATION | | | | TEAMWORK | | | | SELF-DIRECTED LEARNING | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 - Tailors comm to PAC | Q2 - Uses verbal & non-verbal cues | Q3 - Articulates views in writing & speaking | Q4 - Solicits, listens, shares & adopts ideas | Q5 - Makes contribution to improve team's work | Q6 - Evaluates team proactively to achieve goals | Q7 - Cares team does excellent work, even if no reward | Q8 - Resolves conflicts tactfully | Q9 - Believes failures help indivi grow | Q10 - Believes will to do well if they do not give up | Q11 - Believes success of others is an opp to learn | Q12 - Sets goals & identify gaps | Q13 - Explores alternative learning strategies | Q14 - Extends learning |
| Students | 2.49 | 2.41 | 2.46 | 2.64 | 2.62 | 2.57 | 2.74 | 2.46 | 2.62 | 2.57 | 2.47 | 2.39 | 2.41 | 2.43 |
| Lecturers | 2.4 | 2.46 | 2.52 | 2.51 | 2.6 | 2.25 | 2.58 | 2.21 | 2.44 | 2.47 | 2.42 | 2.37 | 2.29 | 2.24 |

Students rate

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# Is MSF Useful for Our Students?

"If you don't have this report, how will you know where to work on? With this, I know where to start improving myself and it'll be beneficial for me."

"This tracks your growth and allows you to see how you're growing and lets you identify areas that you can focus your growth on."

"It highlights some of the weaknesses that I thought I had a strength in. It hurts that my lecturer rated me lower than I rated myself."

"I feel that I've worked very hard, but my lecturer rated me '2', so maybe I should work harder."

"Yes, I can improve on myself after I know my weaknesses."

**"I want someone I trust and know me to process the report with me."**

Created by Andrew McKinley from Noun Project

# Our Takeaways

1. A runner's true test is how s/he runs his/her marathon. The challenge is to develop effective tools to assess his/her run, such as giving him/her multisource feedback

1. We need buy-in from staff and students for a successful implementation of such multisource feedback surveys

1. Multisource feedback reports can be used as a developmental tool to heighten students' self-awareness, but they must be coached to know how to use such reports effectively

Created by Andrew McKinley
from Noun Project

# Q&A

Created by Rfourtytwo
from Noun Project