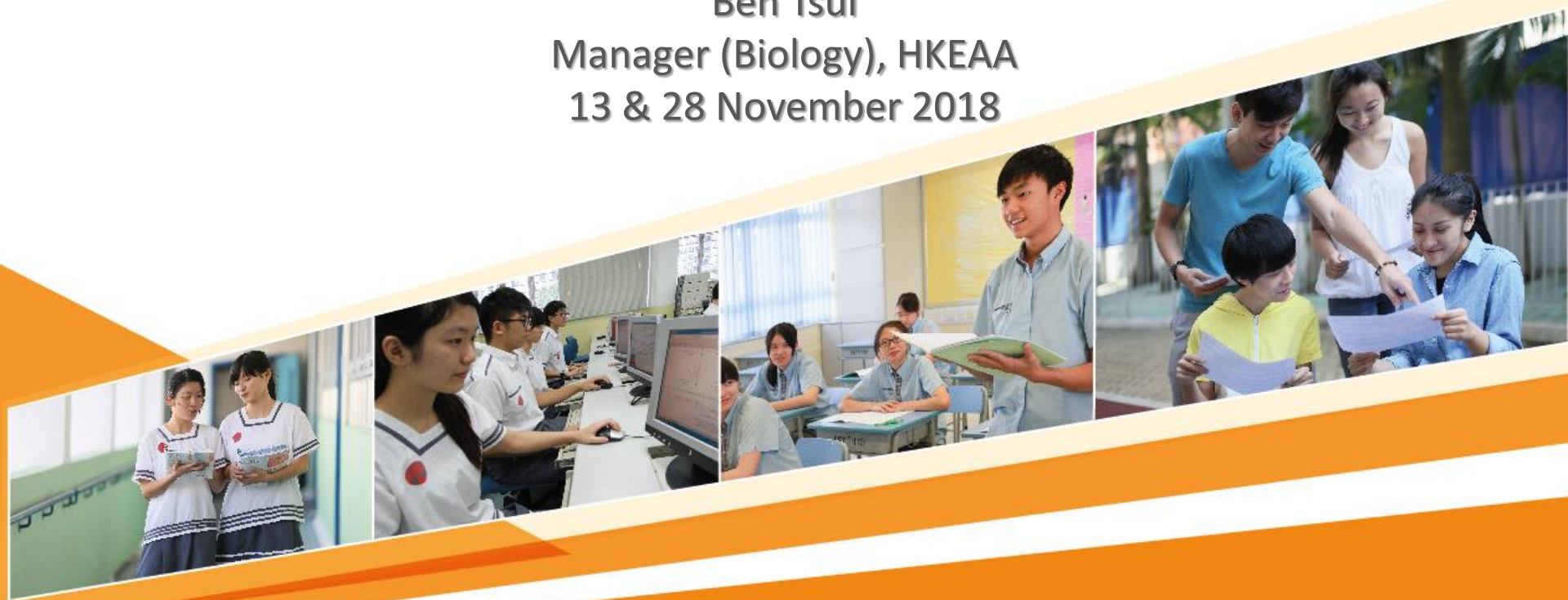# Biology & Combined Science (Biology)

Report on 2018 Exam

Ben Tsui
Manager (Biology), HKEAA
13 & 28 November 2018

Overview of Exam Statistics

Paper	Biology	CS(Bio)
1A (MC)	Mean : 22.4 out of 36 (i.e. 62.2%)	Mean : 12.0 out of 24 (i.e. 50.0%)
1	51.4%	35.7%
2	51.2%	N.A.
SBA	71.6%	67.9%
Subject	55.3% (S.D. 15.1%)	42.0% (S.D. 12.2%)
Candidature	14148	418

Results

Biology							
Level	5**	5*+	5+	4+	3+	2+	1+
Percentage	1.7%	7.1%	17.6%	43.8%	71.4%	90.5%	97.7%

Combined Science (Biology)							
Level	5**	5*+	5+	4+	3+	2+	1+
Percentage	0.7%	1.2%	1.9%	13.4%	36.8%	69.1%	90.2%

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Number of candidates at top levels (Bio)

Level	2015	2016	2017	2018
DSE 5**	305(1.8%)	288(1.8%)	273(1.9%)	236 (1.7%)
DSE 5*	1270(7.5%)	1201(7.5%)	1074(7.5%)	992(7.0%)
DSE 5	3165 (18.7%)	2980 (18.6%)	2717 (18.9%)	2496 (17.6%)
Candidature	16927	16020	14864	14148
Subject mean	55.4	50.8	54	55.3

Performance in MC items (relative to this cohort)

Biology			
% of cand. correct	**>70%**	**50%-70%**	**<50%**
No. of Q	14	15	7

CS Biology			
% of cand. correct	>70%	50%-70%	<50%
No. of Q	2	11	11

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Performance in conventional questions (relative to this cohort)

Biology			
% mark	**>60%**	**40%-60%**	**<40%**
Question no.	4	1,2,5,6,7,8,10	3,9,11

CS Biology			
% mark	>60%	40%-60%	<40%
Question no.	4	1	2,3,5,6,7,8

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Mean marks for Paper 2

- Mark equating was applied to the 4 questions in Paper 2
- After equating:

Elective	Popularity	Mean % mark
Human Physiology	97%	51.5
Applied Ecology	61%	49.1
Microorganisms & Humans	8%	42.8
Biotechnology	34%	56.2

Distribution of questions in Paper 1

Curriculum topics	Suggested teaching time (%) (Out of 180 hours*)	% of mark
Section 1	24	20
Section 2	21	21.7
Section 3	47	51.7
Section 4	8	8.3

* 20 hours is allocated for Scientific Investigations

Question types in 1B

- Structure and functions (Q.1,2,3,9,11)
- SI and practical skills related (Q.2,3,8)
- Data interpretation (Q.4,7,)
- Scenario-based (Q.1,9,10,11)

Internal study of 2018 exam

- Difficulty of question in 1A
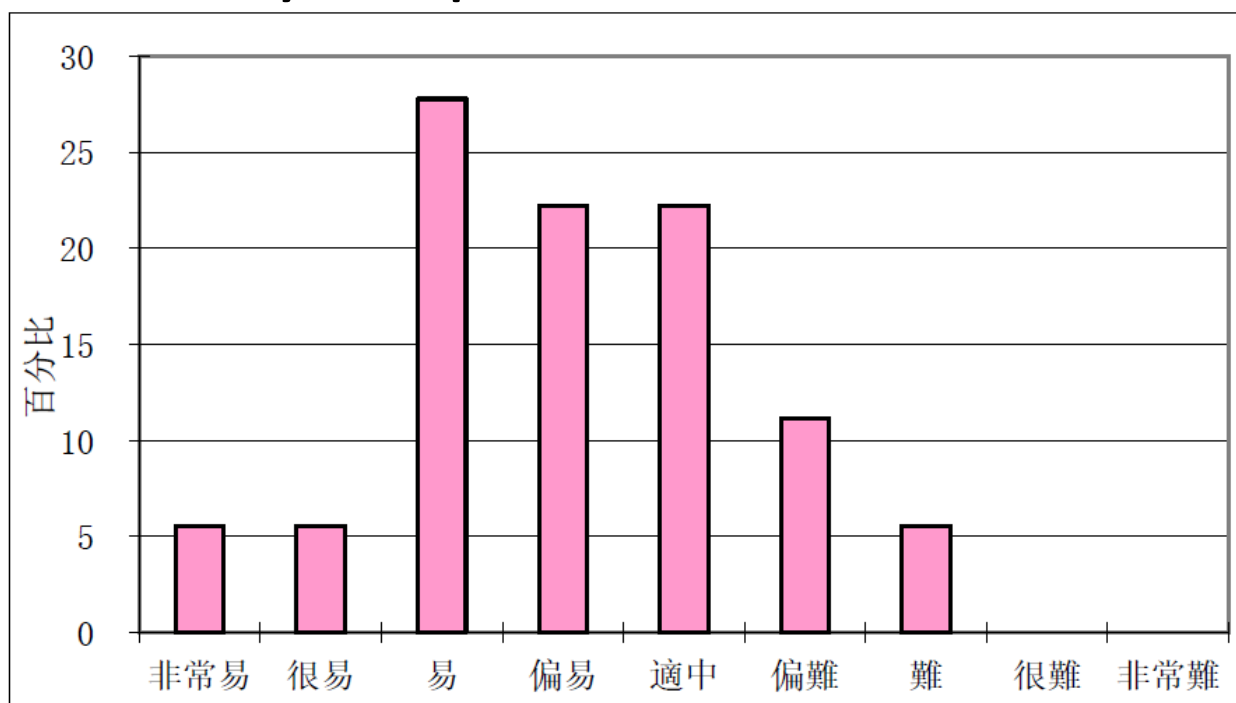
圖 1 卷一甲部題目難度分佈

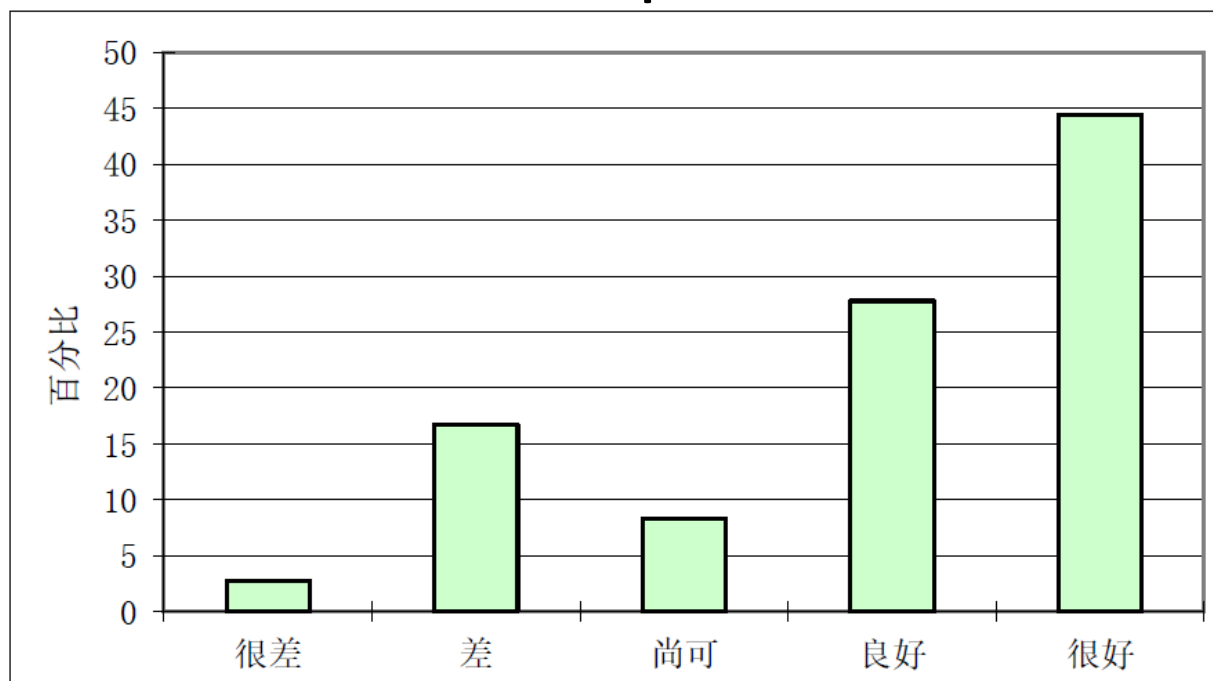# Internal study of 2018 exam

- Discrimination of questions in 1A

圖 2 卷一甲部題目區分度分佈

Internal study of 2018 exam
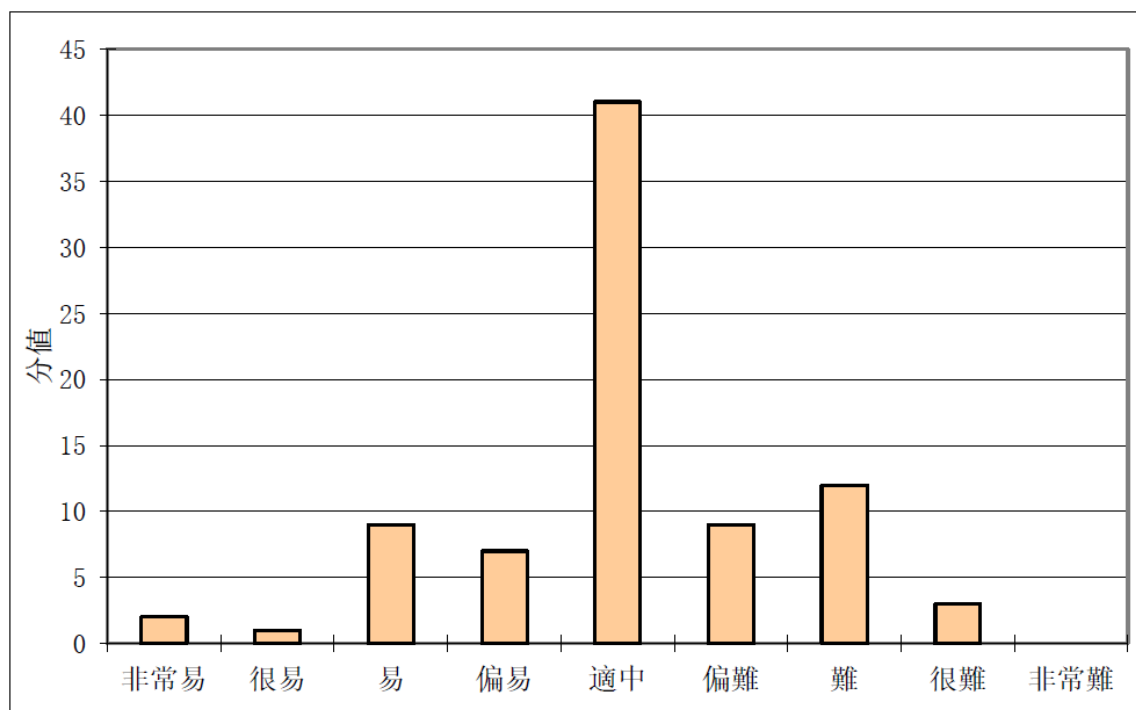
- Difficulty of question in 1B

圖 3 卷一乙部分值難度分佈

Internal study of 2018 exam

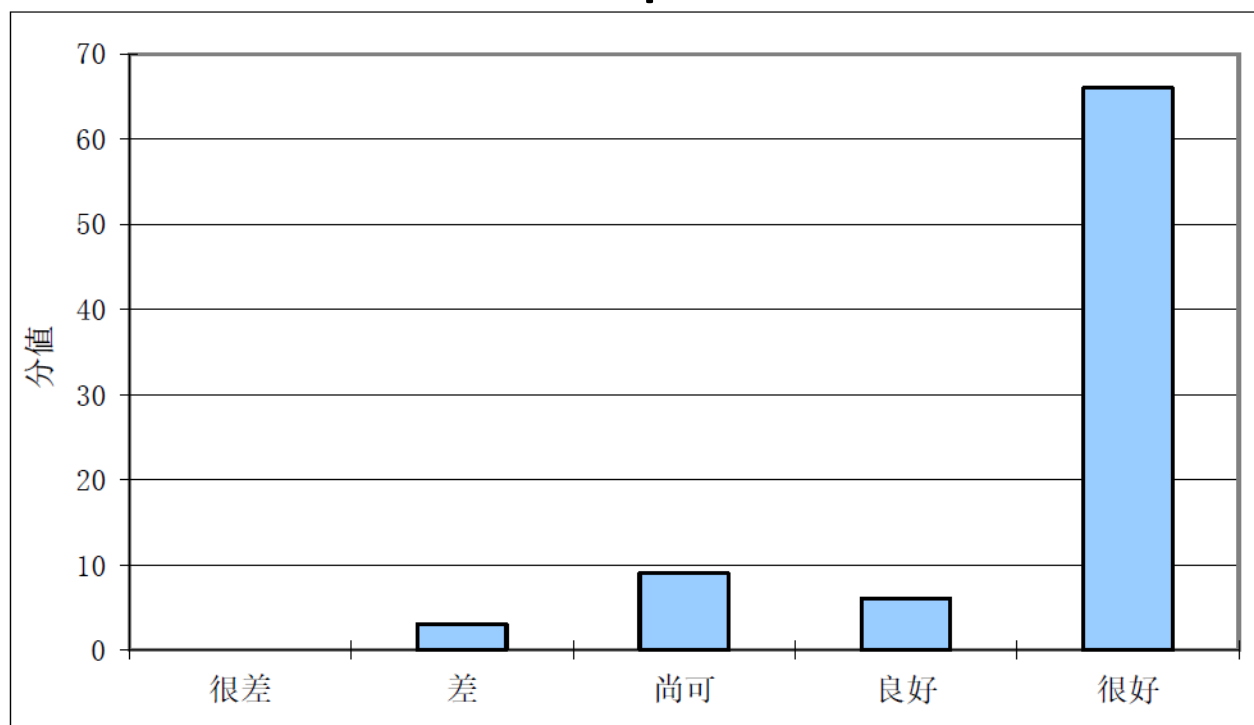- Discrimination of questions in 1B

圖 4 卷一乙部分值區分度分佈

Internal study of 2018 exam

- Paper 2
  - The discrimination of each section of paper 2 was very high.
  - The Cronbach's coefficient of Paper 1 was 0.91. The coefficient of the whole Biology paper was very high whichever combination of two sections was chosen

Feedback to Teachers

- *HKDSE Question Papers*
    1. Question Papers
    2. Marking Scheme (with General Marking Guidelines)
    3. Reports on Candidates' Performance

- *Samples of Candidates' Performance and Comments for each Level*
    - http://www.hkeaa.edu.hk/tc/hkdse/assessment/subject_information/category_a_subjects/hkdse_subj.html?A2&2&5_25 (C)
    - http://www.hkeaa.edu.hk/en/hkdse/assessment/subject_information/category_a_subjects/hkdse_subj.html?A2&2&5_25 (E)

- *Briefing Sessions*

- *HKDSE School Statistical Report*

    (a school-specific report showing results statistics of the school and those of all day schools)

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Important dates for public exam

Event	Date
Markers Recruitment	21 Nov – 13Dec, 2018 (tentative)
Exam Day	15 April, 2019
Markers' Meeting	24 April, 2019 (tentative)
OSM Training	26 April, 2019 (tentative)
Marking Period	26 April – 22 May, 2019 (tentative)