

聖公會聖本德中學
S.K.H. St. Benedict's School



How to utilize data analysis of e-learning materials
to improve student performance

20th June, 2023

Assistant Principal Barton Hung

AiTLE Associate Exco member

The importance of data analysis in improving student performance

1. understand students better,
2. identify areas where students are struggling,
3. adjust teaching strategies to better meet students' needs



The types of data teachers can analyze:

1. Summative assessment data
2. Formative assessment data,
3. Student engagement data,



Summative assessment data

1. Standardization:

- a. To provide a consistent and objective measure of student performance that can be compared across subject, students, classes.

2. Accountability:

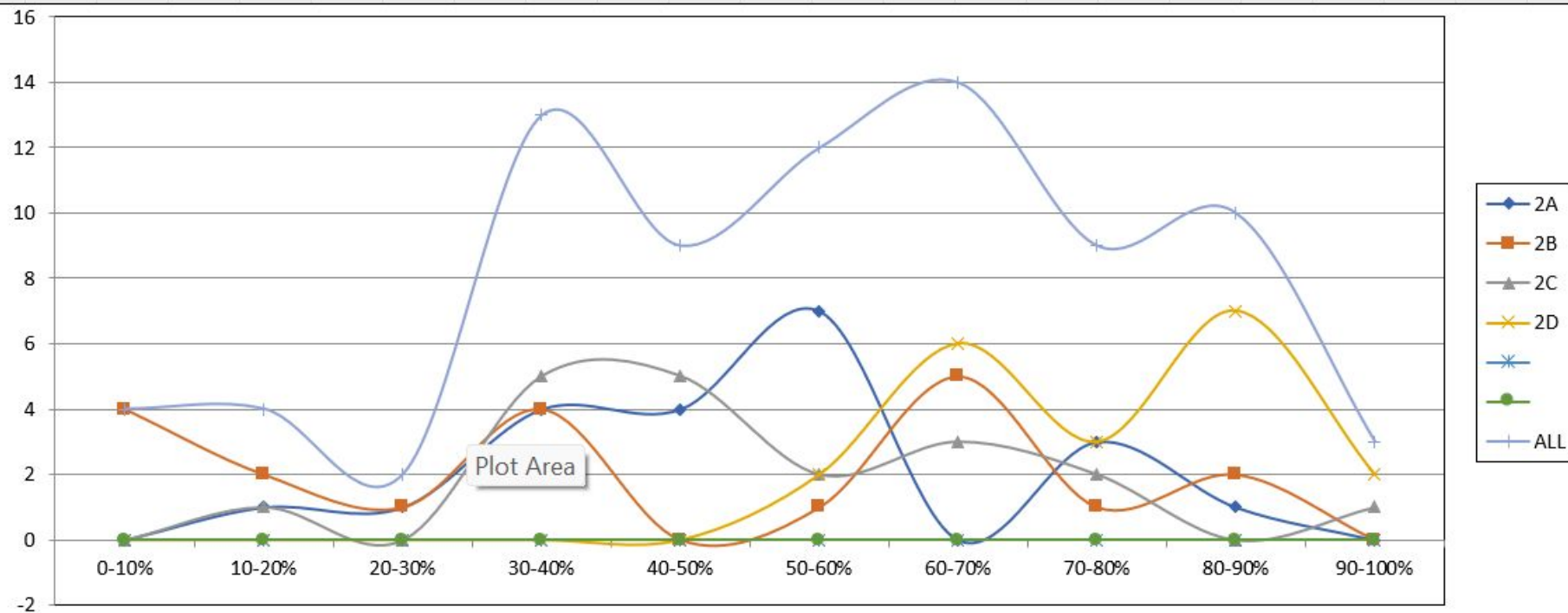
- a. to hold teachers and schools accountable for student learning outcomes.

3. Long-term tracking:

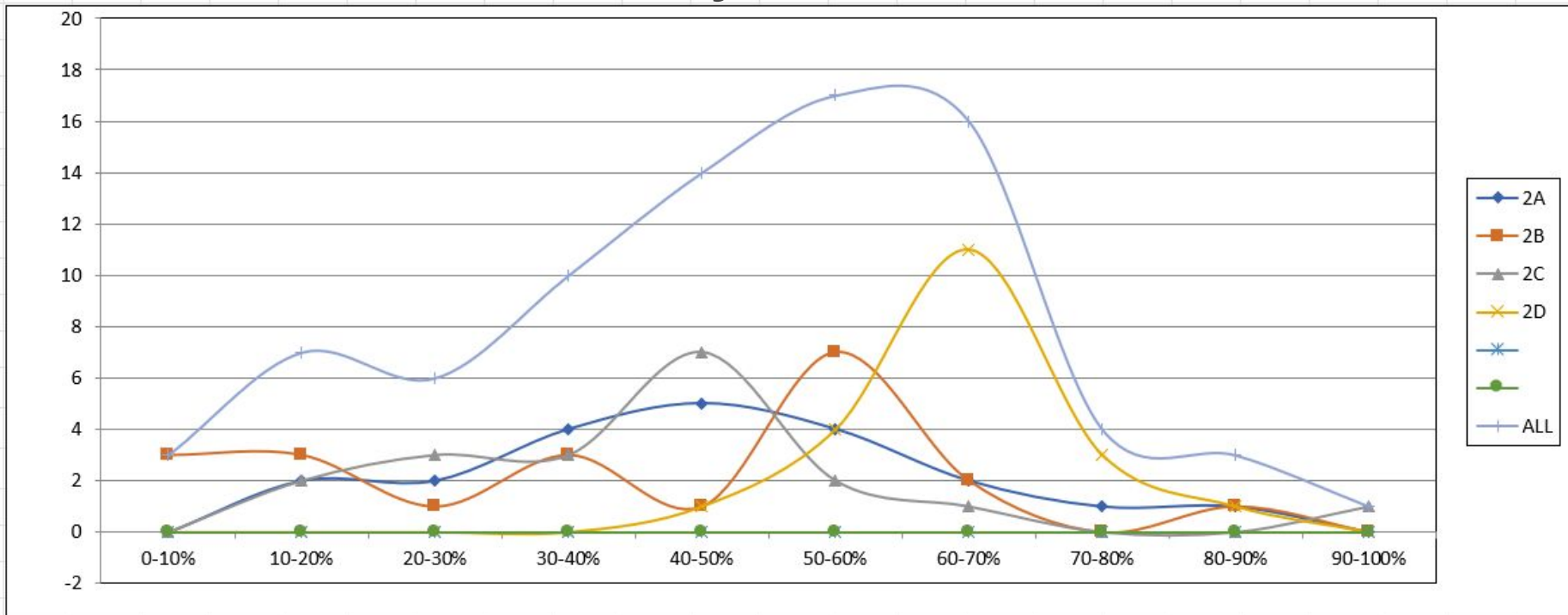
- a. Summative assessments can be used to track student progress over time, which can be useful for identifying areas where students are making progress and areas where they need more support. This information can be used to inform instructional decisions and to provide targeted support to students who are struggling.



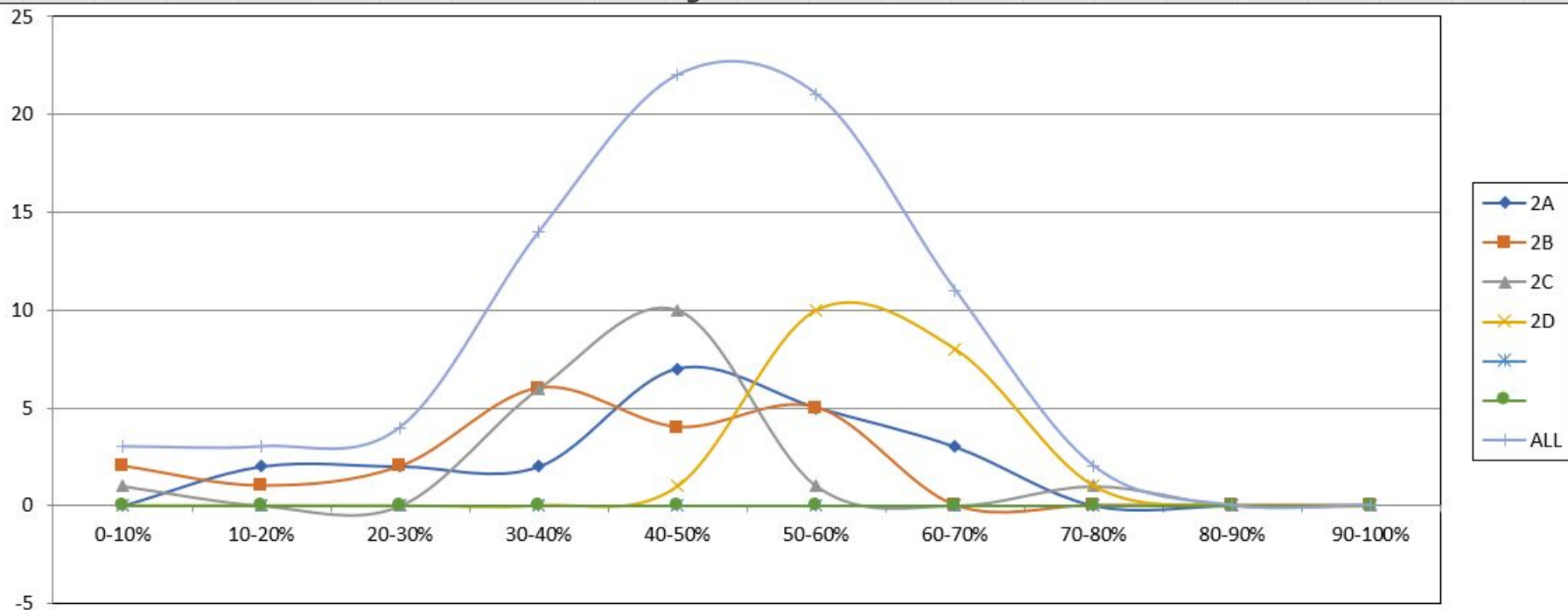
Subject A



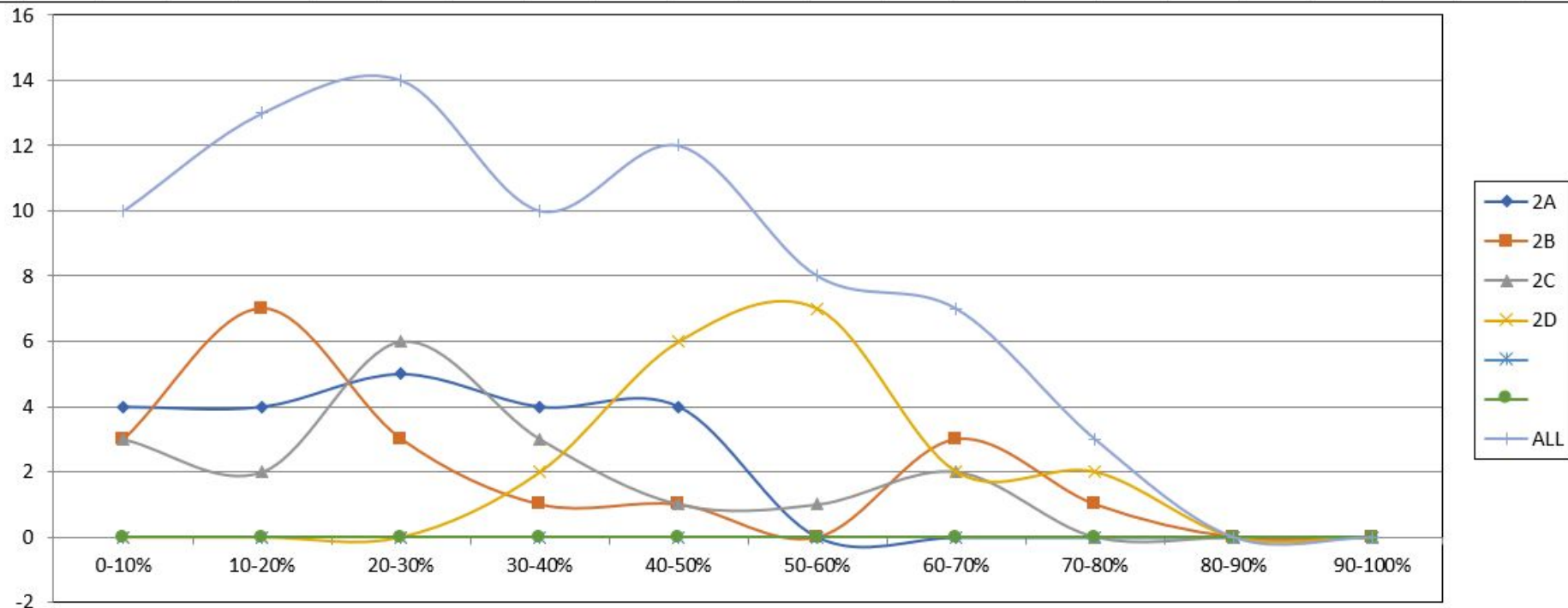
Subject B



Subject C



Subject D



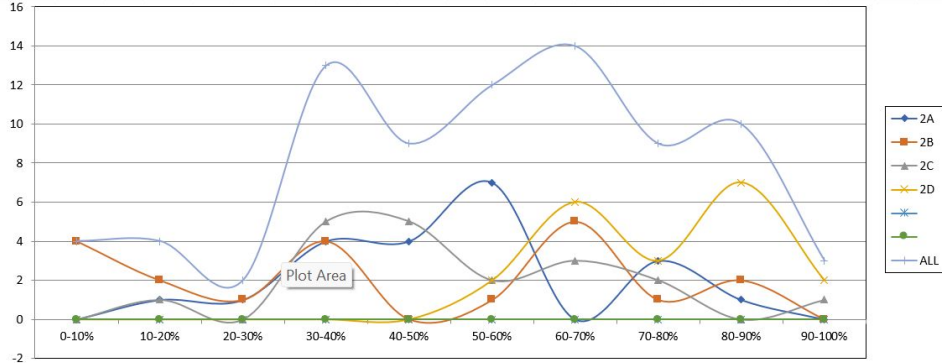
Summative assessment data

How do you interpret the above data?
Which subject would you like to follow up?

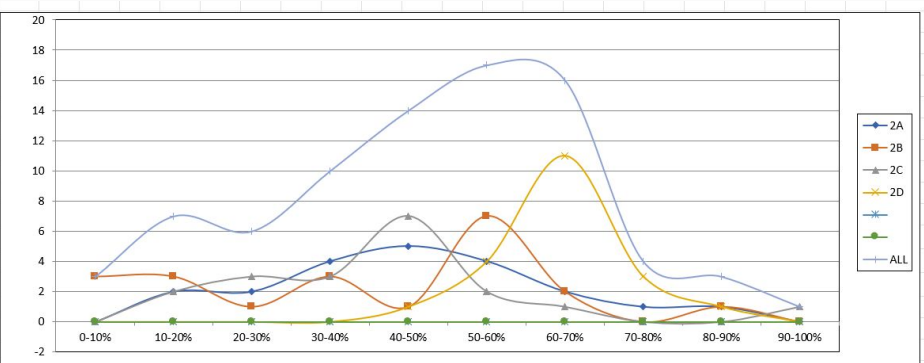


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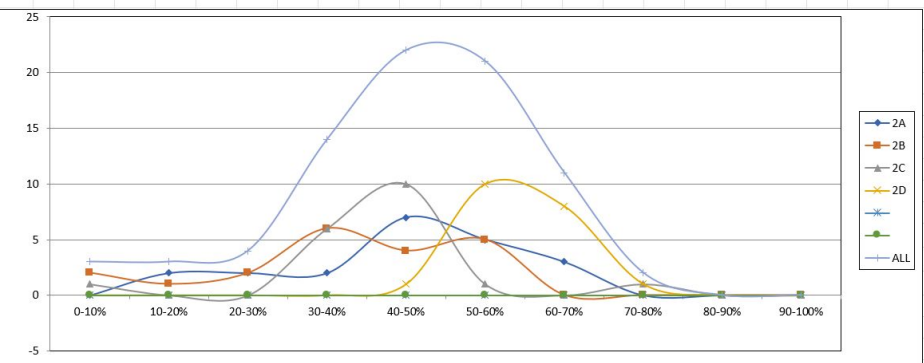




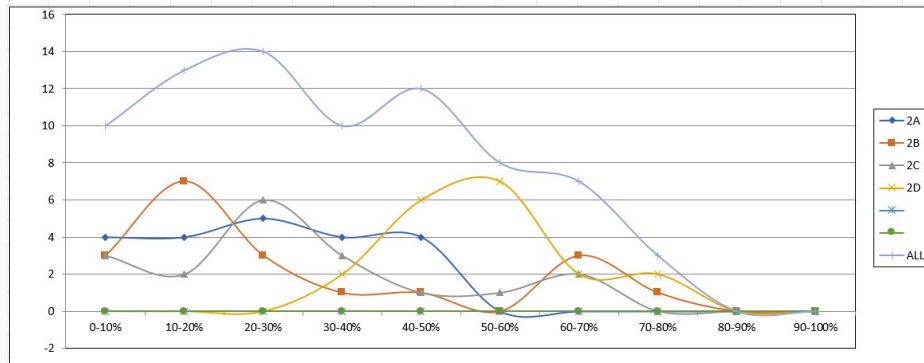
Subject A



Subject B



Subject C



Subject D



個人分析表

S	2022					S	2021						2020						2019						2018						2017				
S	T1	T2	T3	An	S	T1	T2	T3	An	G	T1	T2	T3	An	S	T1	T2	T3	An	S	T1	T2	T3	An	S	T1	T2	T3	An						
中文	57	60		58.7	中文	63.2	/	60.4	61.5	中文	3	3	4	4	中文	75.6	0	75.6	75.6	中文	73.4	61.6	75.8	70.8	中文	67	66	68.8	67.4						
英文	62	63		62.6	英文	56	/	64.6	61.2	英文	3	3	4	4	英文	70.2	0	63.8	66.4	英文	70.8	69.4	74.2	71.7	英文	58.4	69.6	69.2	66.1						
數必	46.8	50		48.6	數必	43.6	/	53.8	49.7	數必	4	2	3	3	數學	75	0	64.6	68.8	數學	84.4	74.6	68.6	75.1	數學	43.8	64.2	72.8	61.5						
通識	64.8	62		63.2	通識	63.4	/	58.8	60.6	通識	3	3	3	3	通識	86.2	0	86.8	86.6	人文	79.4	75	93	83.5	人文	88.8	72.4	84.6	82.2						
物理					物理					物理					物理	90.4	0	82.4	85.6																
生物	64.6	53		58	生物	75.2	/	65	69.1	生物	4	5	4	4	生物	90.8	0	80.4	84.6	科初	85.6	82.4	75.6	80.6	科初	79.2	67.6	66.6	70.7						
地理					地理					地理					地理	78.2	0	93.4	87.3																
健懷					健懷					健懷																									
會計					會計					會計					基商	62.6	0	93.4	81.1																
經濟					經濟					經濟					經濟	98.4	0	80.2	87.5																
化學	46.4	40		42.7	化學	46	/	31.6	37.4	化學	5	3	3	3	化學	74.2	0	70.8	72.2																
中史					中史					中史					中史	89.8	0	82.8	85.6	中史	97	90.2	99	95.8	中史										



Formative assessment data

1. Timeliness

- a. provide more timely feedback to both students and teachers. Teachers can use this feedback to adjust their instruction and provide targeted support to students who are struggling.

2. Specificity

- a. provide more detailed information about students' strengths and weaknesses than summative assessments. For example, a formative assessment might reveal that a student is struggling with a particular concept

3. Flexibility

- a. Teachers can design formative assessments to address specific learning objectives or to assess students' progress towards personalized learning goals.



Student engagement data

1. Early identification of struggling students:
2. Improvement in student motivation
3. Better understanding of student learning preferences



Student engagement data

https://analytics.google.com/analytics/web/#/p288216584/reports/explorer?params=_u.comparisonOption%3Ddisabled%26_u.date00%3D20230523%26_u.date01%3D20230616&r=all-pages-and-screens&ruid=all-pages-and-screens.life-cycle.engagement

<https://www.skhsbs.edu.hk/%e5%ad%b8%e8%88%87%e6%95%99/%e9%9b%bb%e5%ad%90%e5%ad%b8%e7%bf%92%e5%b9%b3%e5%8f%b0/>



		100% of total	100% of total	Avg 0%	Avg 0%
1	SKHSBS Physics	82	49	1.67	0m 25s
2	SKHSBS Physics - 力學	54	24	2.25	0m 23s
3	SKHSBS Physics - 電和磁	49	22	2.23	0m 10s
4	SKHSBS Physics - 課題	42	26	1.62	0m 19s
5	SKHSBS Physics - 練習	33	23	1.43	0m 10s
6	SKHSBS Physics - DSE Past paper	30	17	1.76	0m 07s
7	SKHSBS Physics - 電路和電功率	29	21	1.38	0m 46s
8	SKHSBS Physics - 動量/撞擊力	26	17	1.53	0m 46s
9	SKHSBS Physics - 靜電學	24	14	1.71	0m 42s
10	SKHSBS Physics - 熱學	14	7	2.00	2m 17s



The difficulties

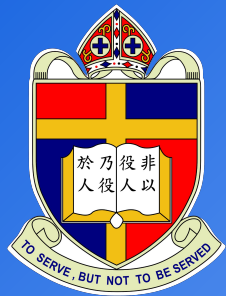
1. Limited access to technology:
2. Data privacy concerns:
3. Difficulty in interpreting data:
4. Lack of engagement with e-learning materials:
5. Limited resources:



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Google
for Education

Reference
School

Thank you

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