The background features a large teal circle on the left and a complex, multi-colored orange and red geometric pattern on the right, resembling a stylized sun or a series of overlapping triangles.

Gamification: Tap into Motivation with a Data-driven Approach

BY JAMES ABELA

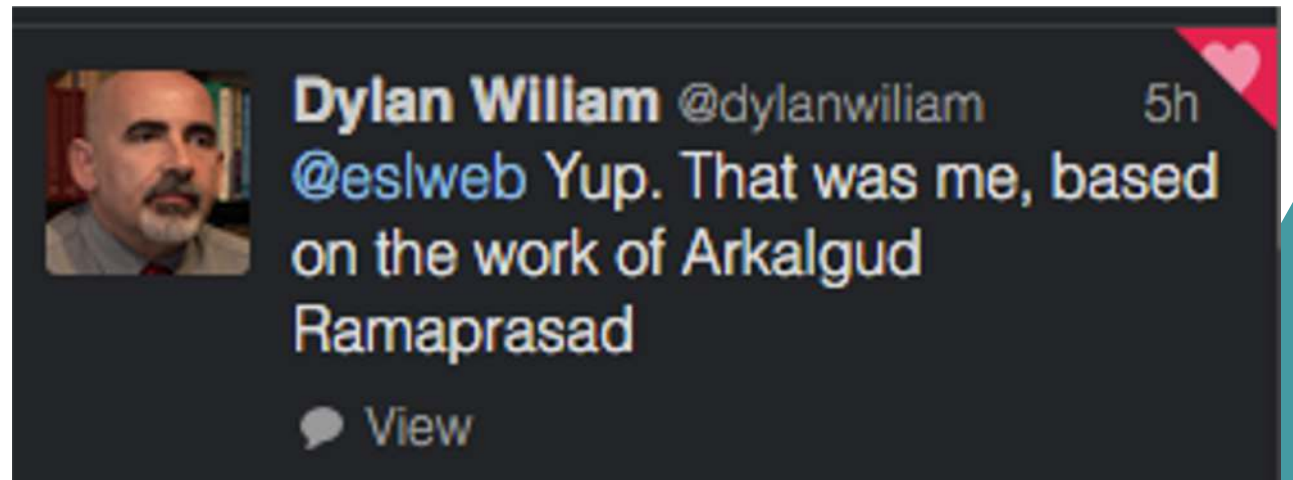


School Results data? Accurate, but too late.
What data would have prevented this crash?



“Feedback functions formatively only if the information fed back to the learner is used by the learner in improving performance.”

Dylan Wiliam

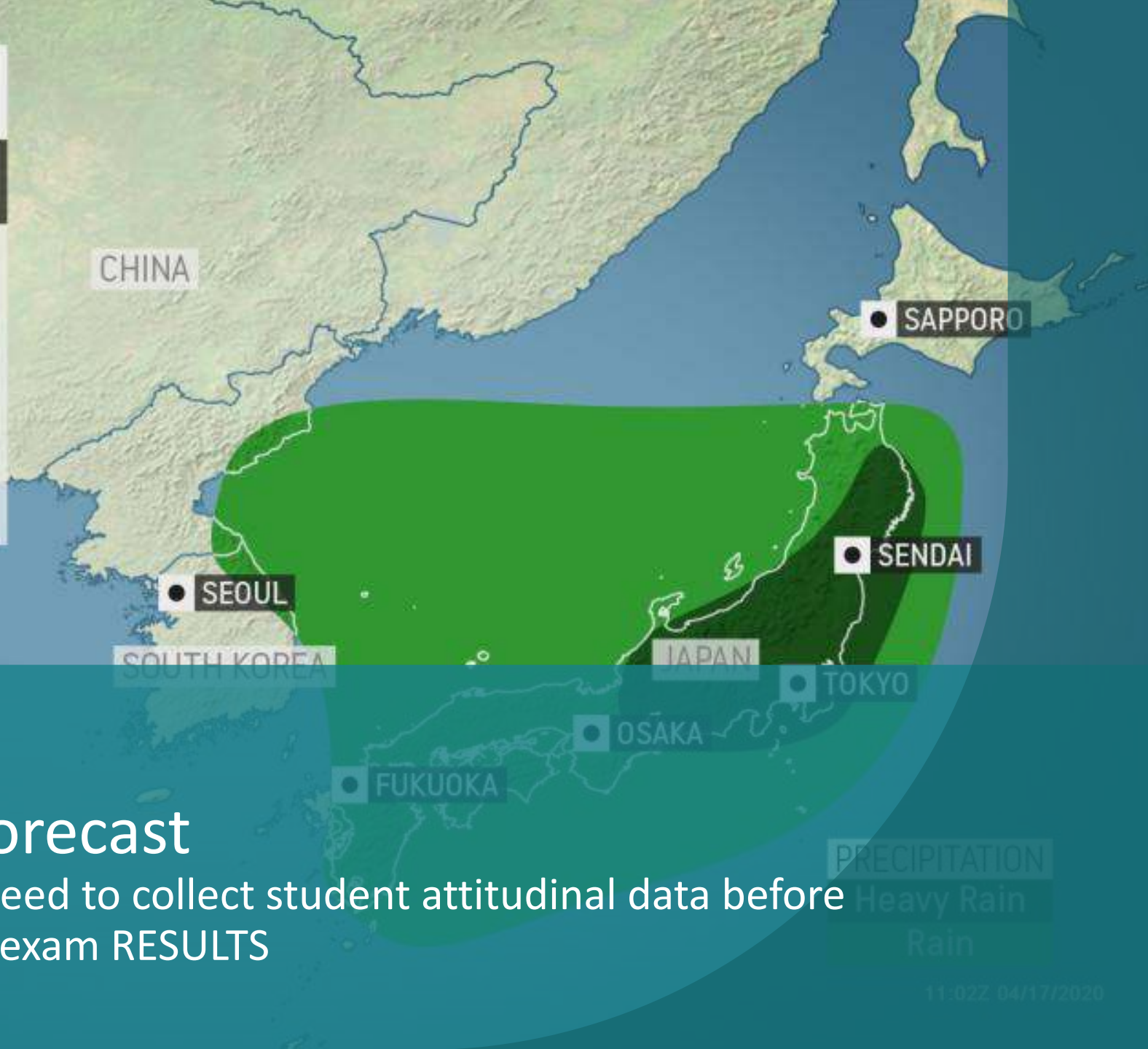




POTENT STORM

Through Saturday

- Flash flooding
- Mudslides
- Gusty winds
- Rough seas
- Another storm follows



The weather forecast

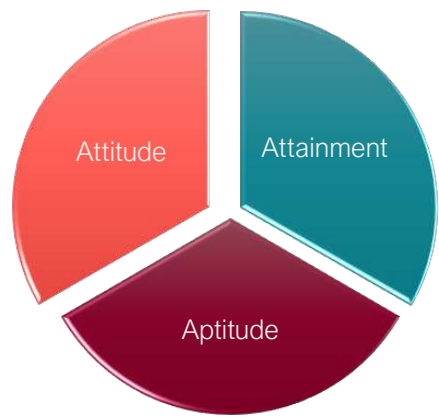
In the same way we need to collect student attitudinal data before they become terrible exam RESULTS



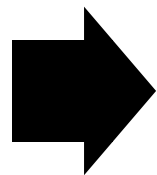
AccuWeather

PRECIPITATION
Heavy Rain
Rain

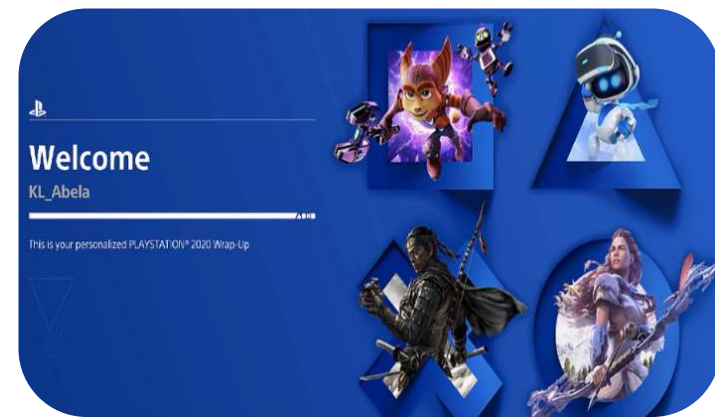
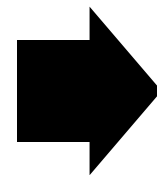
11-02Z 04/17/2020



Input

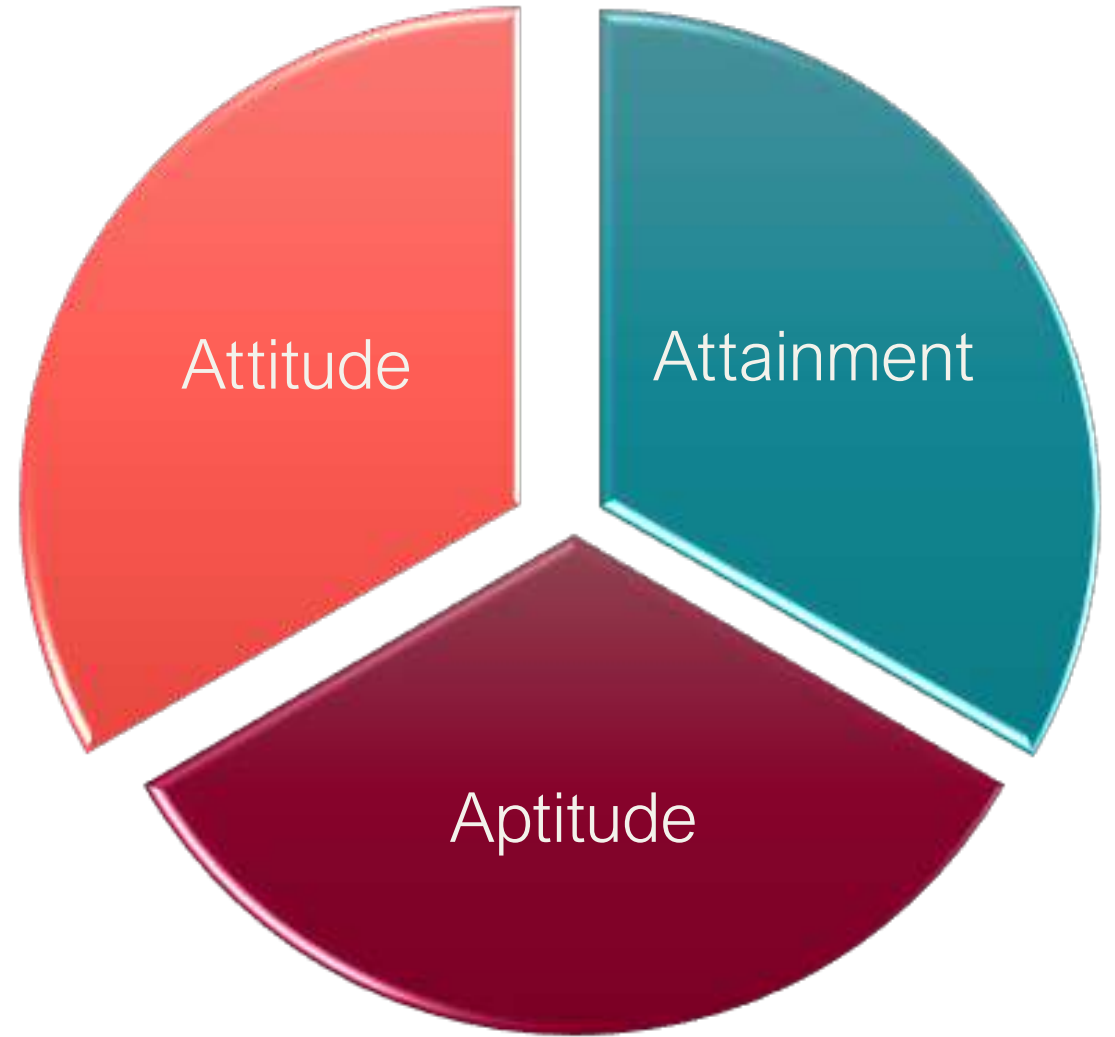


Processing



Output

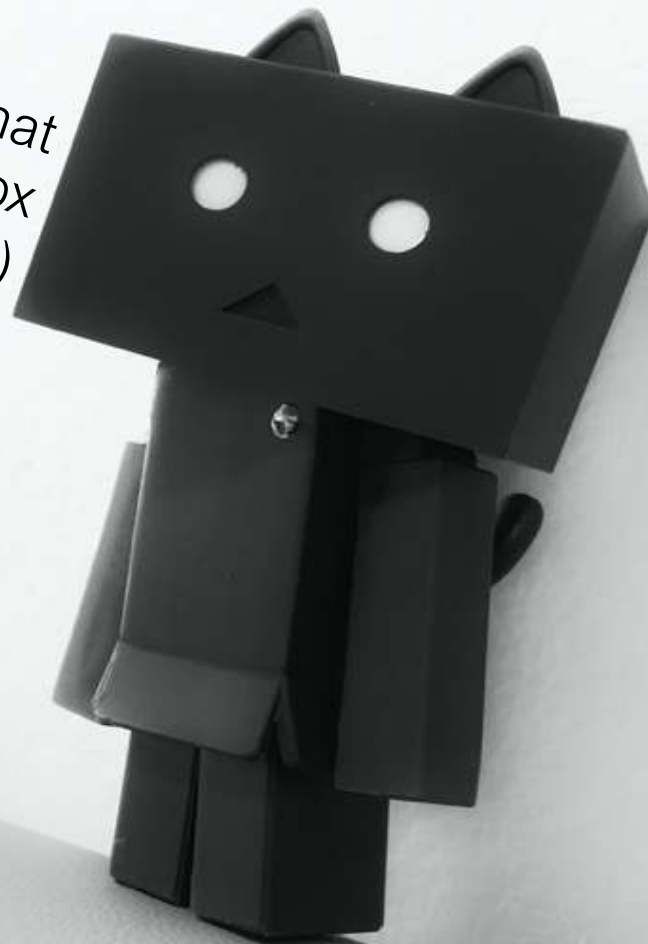
Data Triangulation



Can't change what
is inside the black box
(intrinsic)



Can give rewards
(Extrinsic)



Attitude



Drag the characters

RAMP – Intrinsic motivators

Relatedness

User Type: Socialiser

Social Status, Social
Connections, Belonging.

Mastery

User Type: Achiever

Learning, Personal
Development, Skill Up.

Autonomy

User Type: Free Spirit

Creativity, Choice, Freedom,
Agency.

Purpose

User Type: Philanthropist

Altruism, Meaning, A Reason Why.



RAMP - Intrinsic motivators

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<http://bit.ly/GISsuper>



RAMP - Intrinsic motivators

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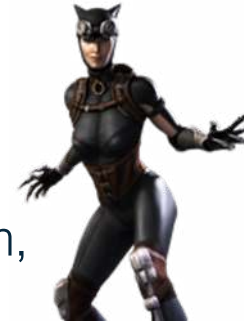
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Agency.



Purpose

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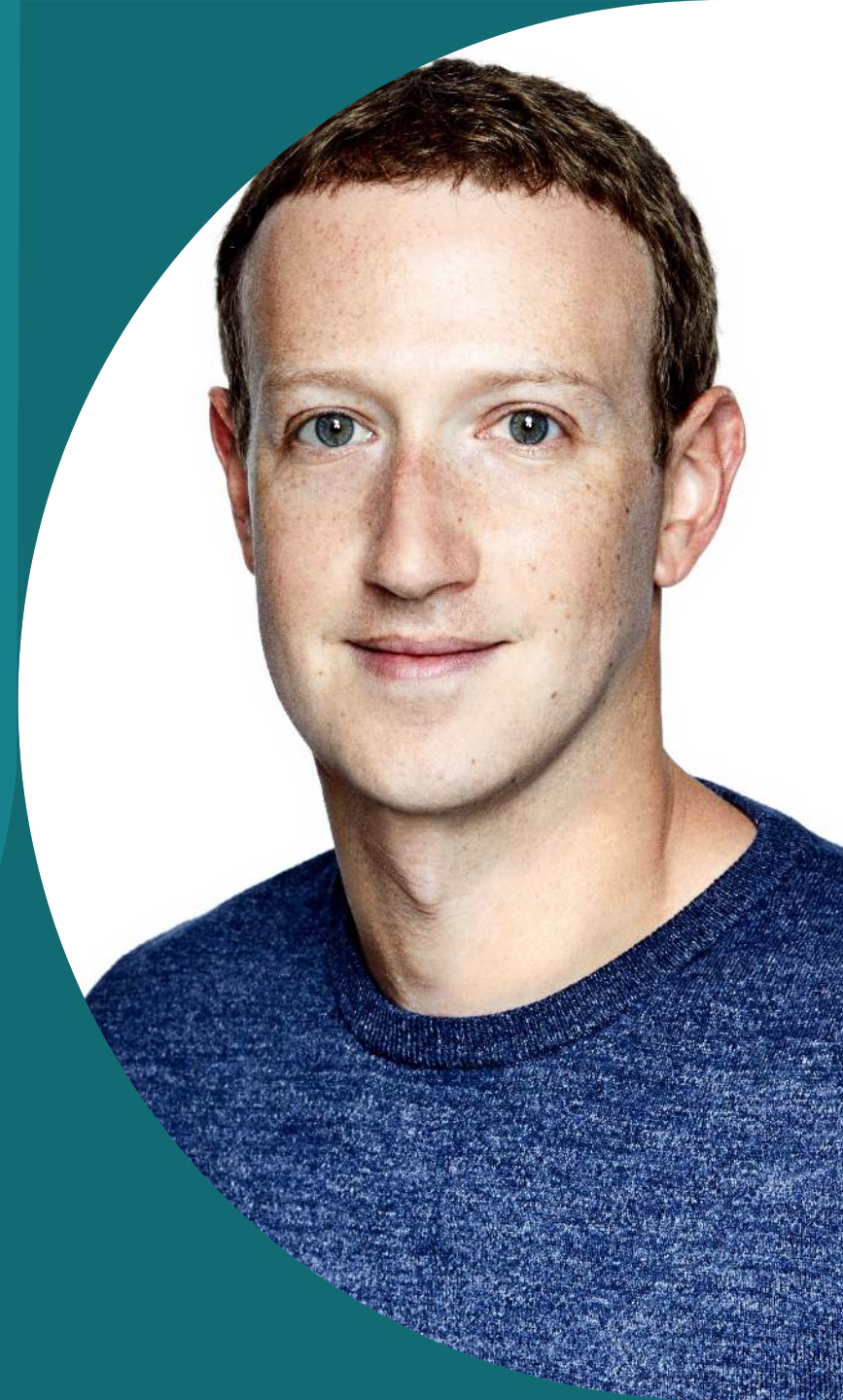
Altruism, Meaning, A Reason
Why.



How are your students motivated?

The best teachers know their students, but how can you bring that information to all teachers? What does Facebook do to get info on all its users?

- What data do you already have? Hobbies, interests, clubs, book borrowing
- Use psychological tools to help you such as RAMP to help you.
- Get under their skin



Data profiles (Sometimes called individual education plans)

Using Data for Feedback

Have a look at these 3 students and discuss their question.

- What does the data indicate about the student?
- What motivational feedback you can give them?
- What you would expect their next steps to be?

Catwoman

Year	8	CAT4 V	100
Self	54	CAT4 Q	110
Study	60	CAT4 NV	113
School	43	CAT4 S	81
CP1	13 / 35		
CP3	6 / 11		

Enquiry Question:
Is there a way to communicate with my cat?

Batman

Year	5	CAT4 V	92
SEN		CAT4 Q	109
EAL	Y	CAT4 NV	104
PTE Mean	92	CAT4 S	100
PTM Mean	86	CP1	10 / 35
PTS Mean	75	CP3	2 / 11

Enquiry Question:
Why is Fortnite so popular?

The Joker

Year	7	CAT4 V	96
SEN	SA	CAT4 Q	110
EAL	N	CAT4 NV	112
PTE Mean	103	CAT4 S	115
PTM Mean	101	CP1	10 / 35
PTS Mean	104	CP3	7 / 11
Self	25		
Study	27		
School	21		

Enquiry Question:
What would happen if video game were never made?

- Use them to give pen portraits of your students
- Collect info to help get to know each student better
- Combine with SEN / EAL / G&T
- Give flavour from teachers who know them best



Ready Made



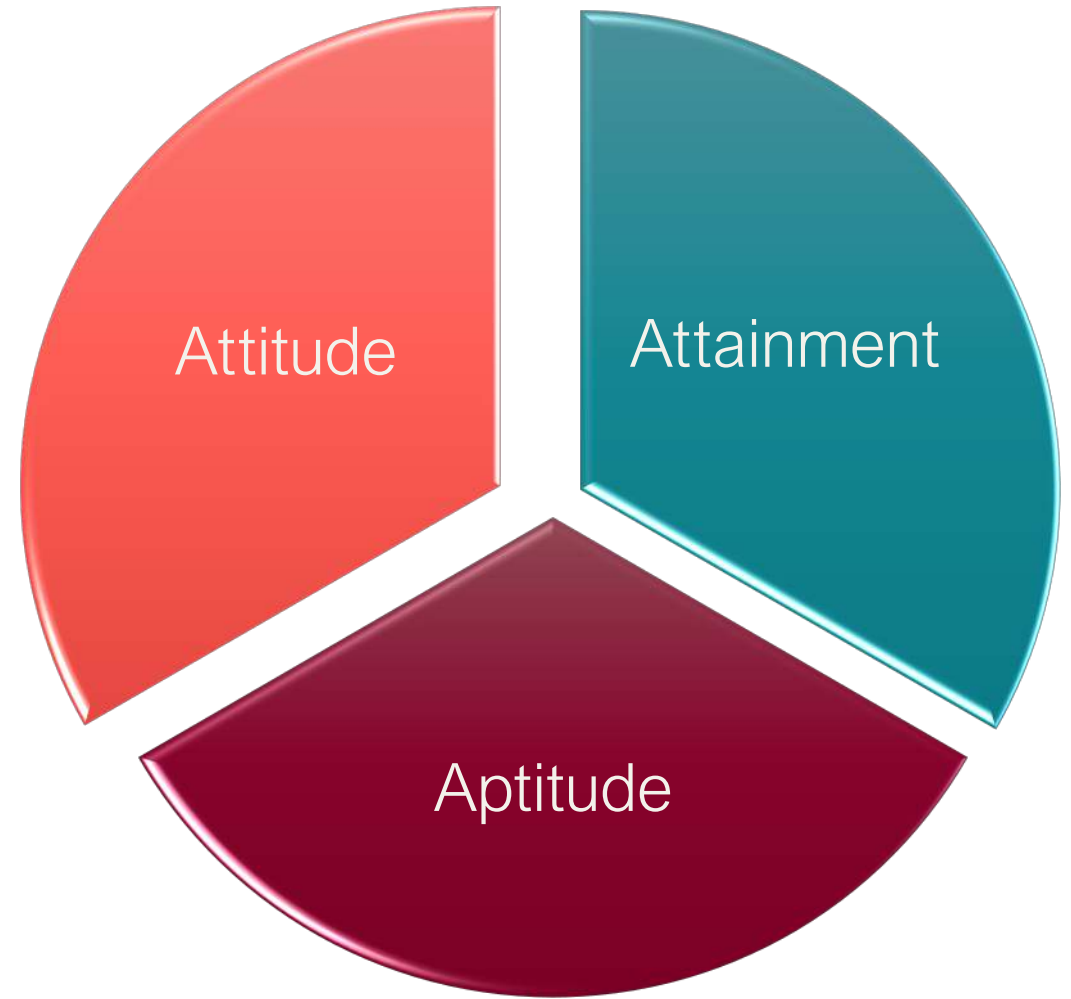
BUT needs to be done
WITHIN a safe and
consistent
environment.



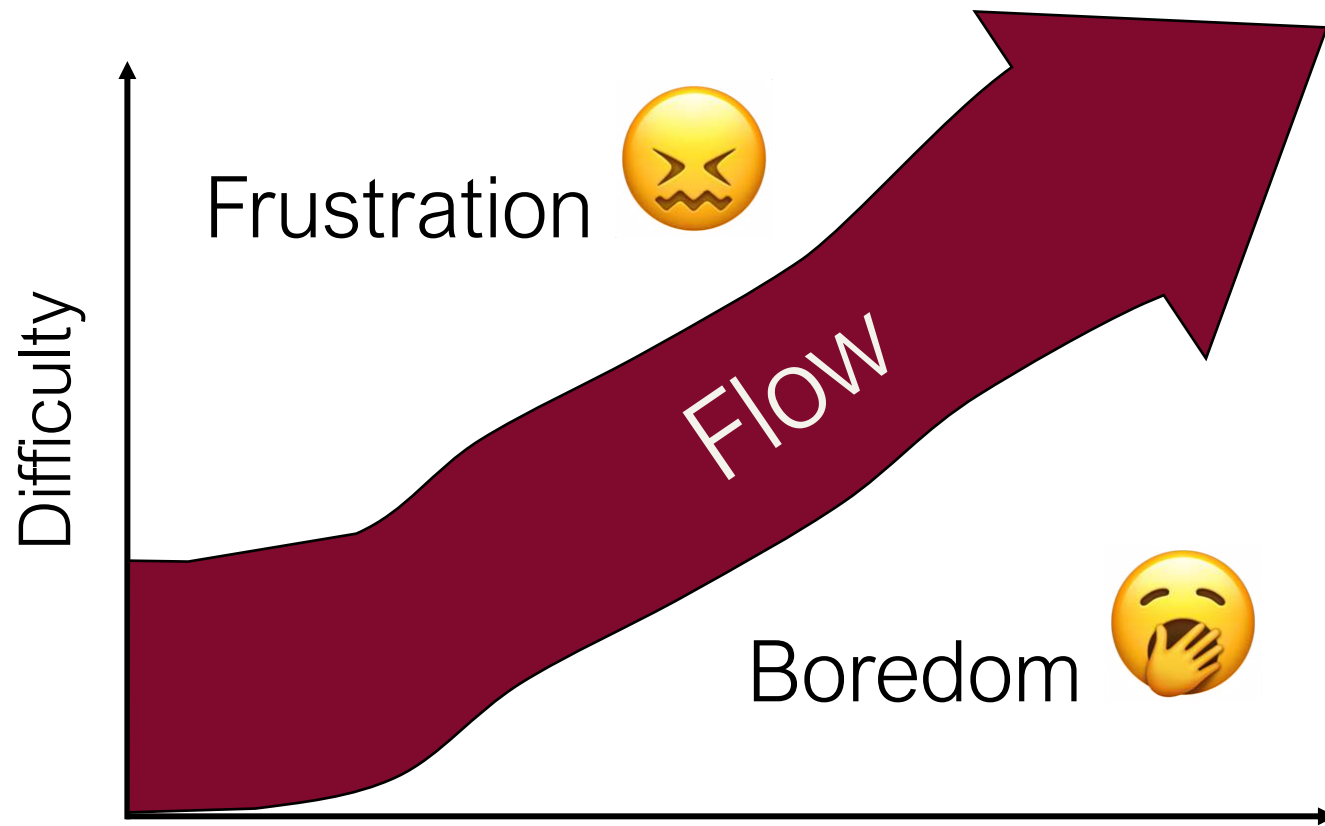
I'm a ClassDojo
addict!



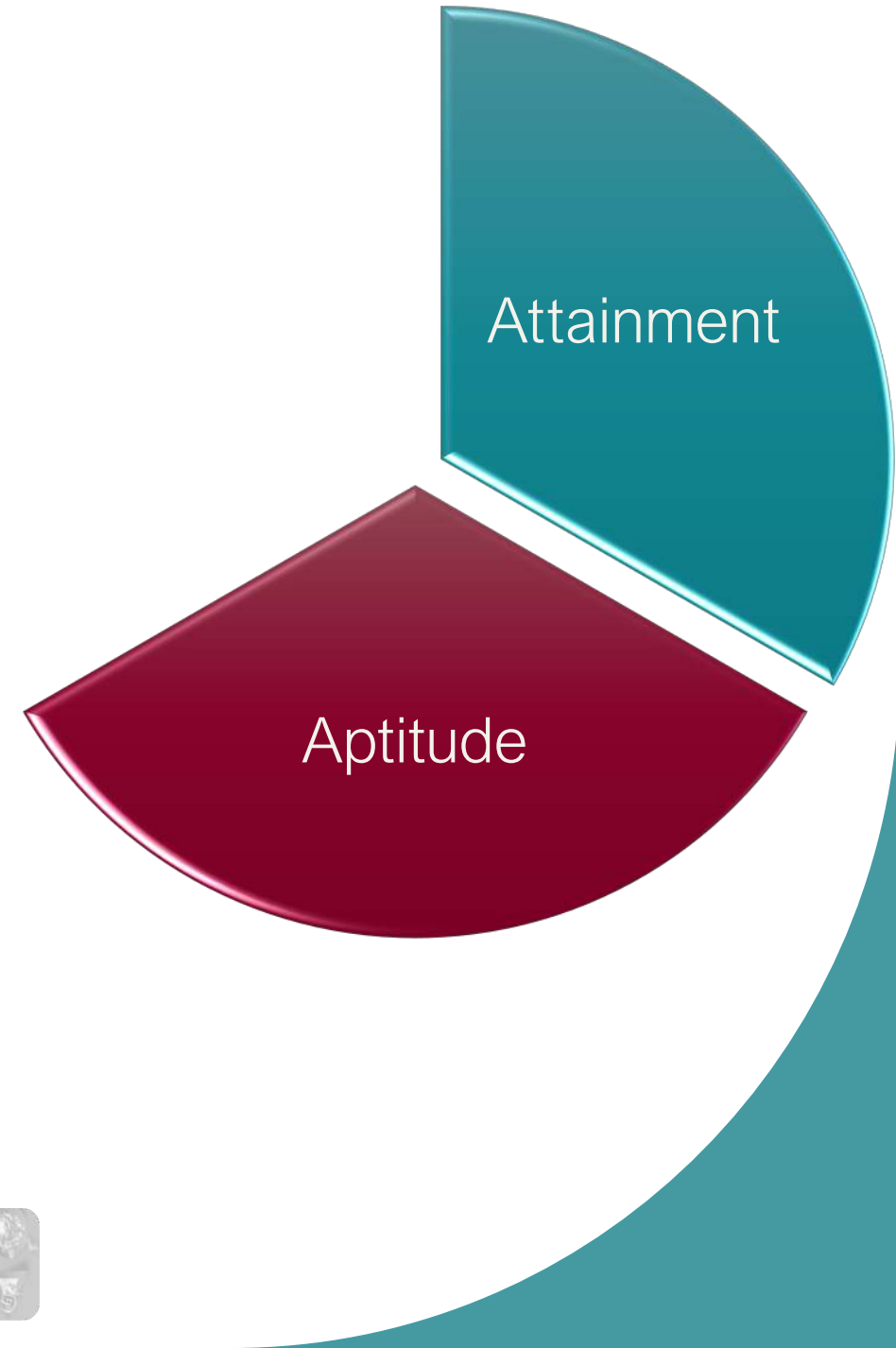
Data Triangulation



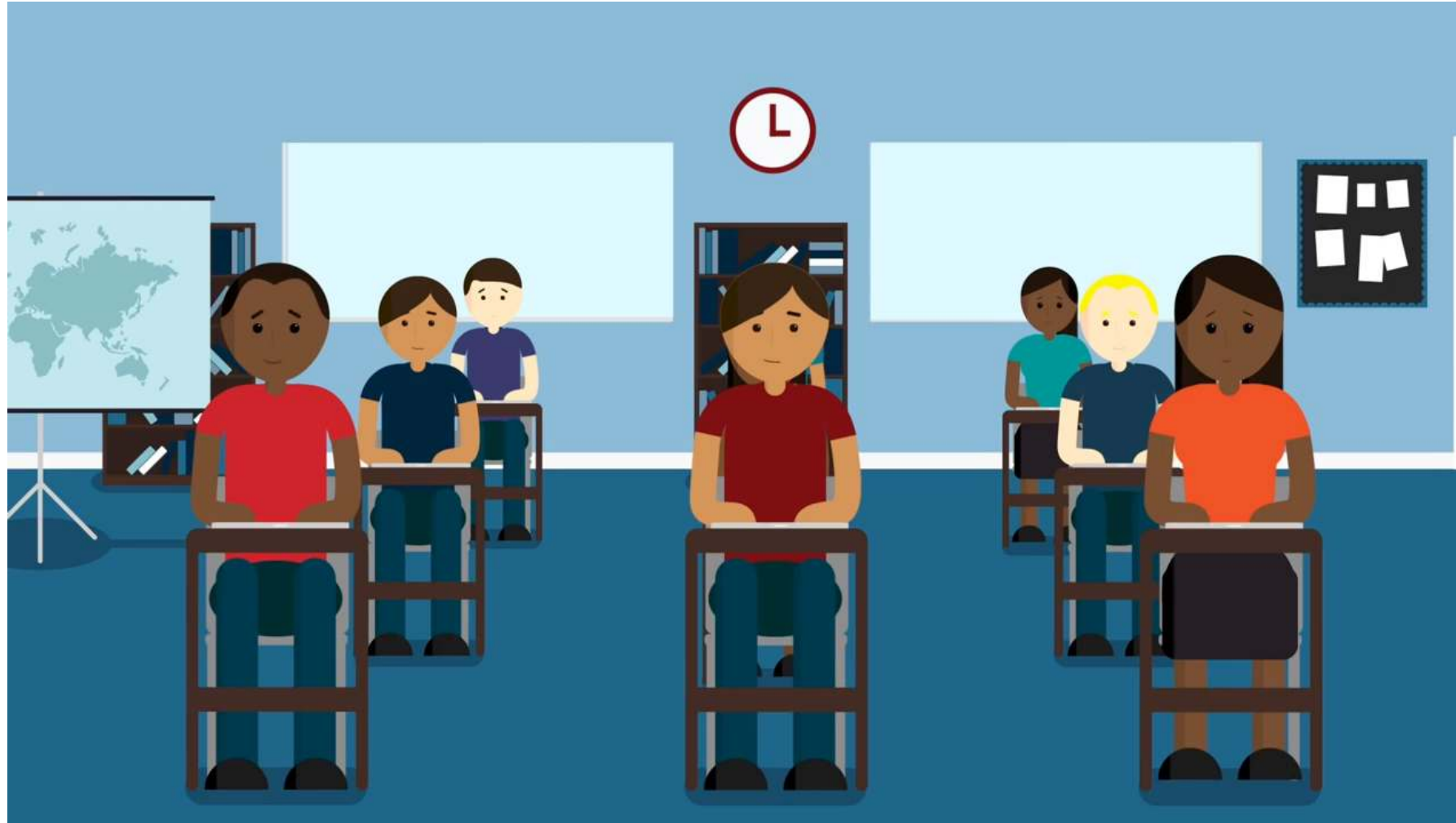
LEARNING CURVE



Time



How can we personalize?



Physics 3C



Students



Assignments



BUILD TIMELINE



Where are students slowing down? Having difficulties? You can see with a tool such as Classwork Zoom.



Student Voice

- Where are you having difficulties?
- What do you find Easy / Difficult?
- What help do you need next lesson?

Today's Lesson 24th February 2016

Review of your lesson today!

Your username (abelaj@gardenschool.edu.my) will be recorded when you submit this form. Not you? [Sign out](#)

First Name

Your answer

Last Name

Your answer

Objectives:

1. To be able to identify what is selection, loop, Totalling & counting in Python.
2. To be able to construct statements using those concepts.
3. To be able to create programs with those statements.

How have you been successful today? (See objectives)

Your answer

What do you need help with?

Your answer

What are your next steps? (What will you do next lesson?)

Your answer

☐ Send me a copy of my responses.

SUBMIT

Never submit passwords through Google Forms.

Name _____ Class _____

PC No. _____ Date _____

How have I been successful in my learning?

What are my next learning steps?
(Use the Learning Question & Success Criteria)



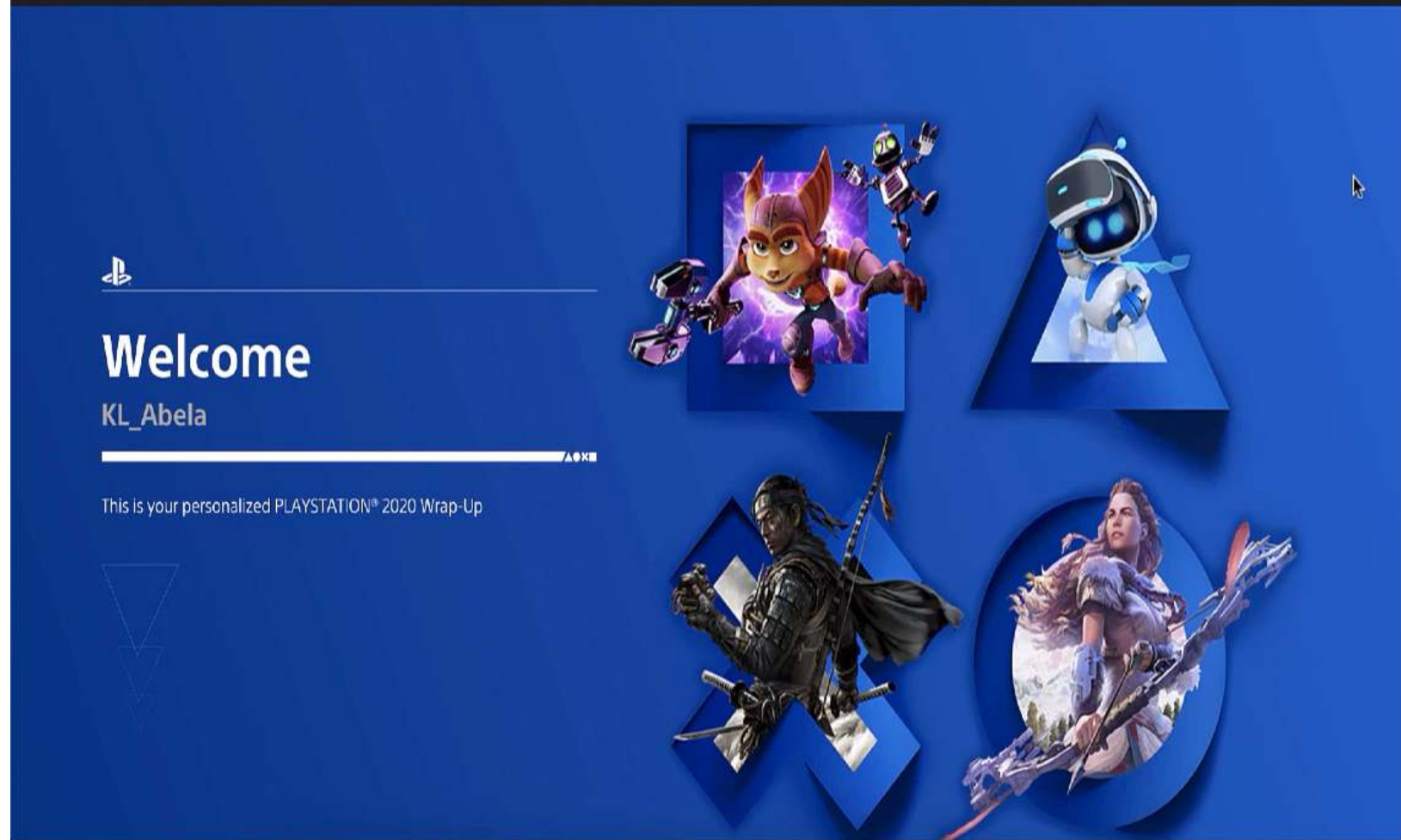
Gamifying the experience of data collection and processing



An aerial photograph of a vast, snow-covered mountain range. The terrain is rugged with numerous ridges and valleys, all blanketed in white snow. The sky is a pale, hazy blue. A large, semi-transparent teal shape covers the bottom half of the image, serving as a background for the text.

Do students & staff beg to see your insights?

THEY DO WHEN IT COMES TO THE SONY WRAP UP



"Celebrate your gaming year with PlayStation Wrap-Up 2020"



Making your systems more game-like



Points



Badges



Levels



Leaderboards



Challenges



Realtime feedback





3,000 points



The Law of Surprise

Key aspect of fun is unpredictability

If rewards are predictable then interest will lesson.

Be generous with points nobody wants 1 or 2 points, give 100. Add to the excitement!



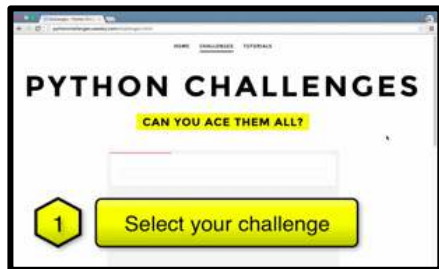
Sites with a focus on Points



Teaches languages with points and competitions







Teaches maths through games and points



My site that teaches coding with points and challenges



	STAGE	100	300	600	Points	
Design Project		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	ASK	We tried, but our design does not solve the problem.	Our Google Drawing design solves the problem.	We used our imagination to invent a futuristic solution to the problem!	600	
		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	INVENT	We tried, but our design does not represent physical features of a habitat.	Our design uses a Google Drawing 3D prototype which represents physical features of a habitat.	We have created a complete design which is original!	300	
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	SHARE	We tried, but did not share our work in the Online Design Challenge Journal.	We have taken a photo and inserted the image of the habitat with comments to the Online Design Challenge Google Site.	We have created a video of our work using another device, uploaded it to The Online Design Challenge Google Site!	100	
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	IMPROVE	We tried, but then gave up. Example: Deleting work!	We exhibited perseverance by improving our work most of the time.	We exhibited perseverance by improving our work all of the time!	100	

Points Collection

USE FORMS AND
SHEETS TO WORK
OUT POINTS AND
KEEP SCORE!





Badges



```
=if('A2'>200,"",image("https://docs.google.com/drawings/d/111txoqtKngu54fS98QO5XjzmXrANSz5cnyKI-jpuIug/pub?w=100&h=100",4,100,100))
```



Create a doc with a spreadsheet to calculate the cost of your PC with a justification why you need it.

Levels

Assessment Criteria



Bronze

Students will be able to **identify** key terms and choose an appropriate PC with a **table** from a spreadsheet. (Report level 1)



Silver

Students will have a Spreadsheet that clearly shows the differences between at least **3 computers** and **justifies** their decision. (Report level 2)



Gold

Students will create a document that **justifies** clearly their choice, shows that they have **balanced** value for money and performance and it is presented in an attractive way. (Report level 3)



Obsidian

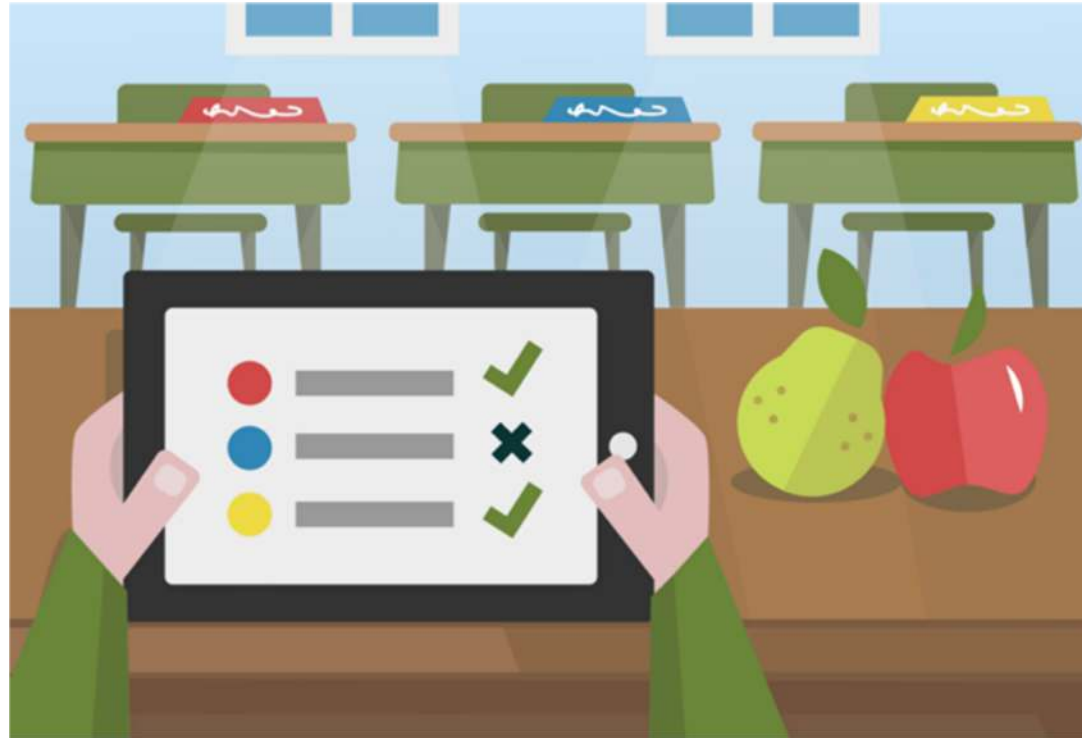
Meets all Gold standards and includes an **independently developed** interactive spreadsheet that enables a user to click through the options. e.g. Uses validation to display a comparison table, highlight key specs and appropriate charts. (Report level 4)





Realtime Feedback

Use Forms to
give instant
feedback



Conclusion



Understand what motivates your students – Gain qualitative data that will enable teachers to connect with students quickly and design truly enjoyable lessons that are student centred



Collect Data quickly and efficiently – Dashboards enable teachers to react, adjust and personalize materials. Don't wait for the end of term! Your LMS should adapt to a student's flow.



Create systems that deliver rewards using gamified systems. Can your LMS efficiently deliver badges & Certificates? Can you surprise students with rewards?