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

Processing

Output
Data Triangulation

- Attitude
- Attainment
- Aptitude
Can't change what is inside the black box (intrinsic)

Can give rewards (Extrinsic)
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.
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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)

- 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

- Difficulty
- Time
- Frustration 🙁
- Flow
- Boredom 😵

Attainment
Aptitude
How can we personalize?
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?
Gamifying the experience of data collection and processing
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
### Points Collection

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

*Use forms and sheets to work out points and keep score!*
Badges

=if('A2>200,"",image("https://docs.google.com/drawingss/d/111txoqtKngu54fS98QO5XjzmXrANSz5cnyKl-jpuIug/pub?w=100&h=100",4,100,100))
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?