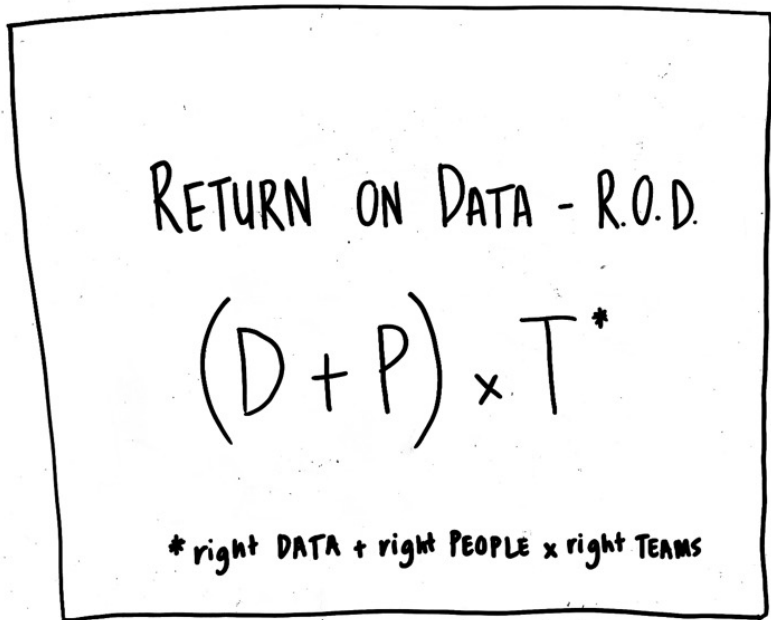# CHAPTER 2

Boosting Your Return On Data

"You can have data without information, but you cannot have information without data." - Daniel Keys Moran

High Performance Schools are places where both staff and students can flourish – and by flourishing we mean continuously having high levels of both achievement AND engagement! To meet this standard, they not only have to provide continuously engaging teaching and learning programs that produce high levels of achievement in students but also create continuously high levels of collective efficacy among teaching teams.

The key word here is of course *'continuous'* and this requires the implementation of some simple and effective ways to continuously measure and maximise collective efficacy among staff and engagement and achievement among students. The trade secret among High Performance Schools who attain such high levels of success is in their comparatively higher level of R.O.D – Return On Data!

A *'Trade Secret'* describes *'special information that provides a competitive edge to its owner'* and in the world of High Performance Schools their most important trade secret is found in their R.O.D. or *"Return On Data"*. High Performance Schools are able to generate a much higher Return On the Data they collect compared to their peer schools because they follow a simple formula that maximises the use of data to drive higher levels of learning and wellbeing for both students and staff.

RETURN ON DATA - R.O.D.

$$(D + P) \times T^*$$

* right DATA + right PEOPLE x right TEAMS

The R.O.D formula is quite simple: R.O.D = (D + P) x T* – where D stands for Data, P stands for People and T for Teams. The little '*' refers to the important caveat of the *'right'* Data, People & Teams which is a very important nuance in making each element of this simple formula work effectively to lift the performance of your school! In this article we want to share some practical things you can do to boost your school's R.O.D!

The Business of Data In Schools

R.O.D works a bit like R.O.I. – Return on Investment in business. R.O.I. is calculated by adding up the amount of money invested into the various people and projects compared to the subsequent profit or loss made by the business. The goal of course is to make the money invested in the business *'work hard'* – spending it on people, materials and processes which in their unique combinations yield substantially higher returns than if the money simply sat in a bank account earning a marginal interest rate. Making your money *'sweat'* is a term used to describe high R.O.I. situations akin to making your body sweat at the gym, and in doing so, achieving a higher level of fitness.

In a school, data can be compared to money in as much as how hard your data works (or 'sweats') will directly impact the level of return you get in both student and staff outcomes. Unfortunately, the data in most schools doesn't sweat (it doesn't even make it off the couch), and most schools have pretty low R.O.D. When we look at the school environment there are four clear (and very understandable) reasons for this:

1. **Too Much of a Good Thing:** While every Australian school has more data than you can shake a calculator at, it's often difficult for schools to tell which data is the right data to drive improvement. Lead indicator data is the 'right data' to drive improvement however many schools expend extraordinary amounts of time, energy, and effort focusing on 'lag' indicator data which significantly reduces their overall R.O.D.

2. **Hidden or Dirty Data:** In many schools data isn't as organised as it could be. Data is often held in formats that cannot be exported or consolidated into meaningful dashboards (excels with varying versions, in filing cabinets, or on the back of a napkin), by multiple people. As a result, data isn't easily accessible to all relevant people in the most relevant timeframe.

3. **Fighting the Clock:** It's fair to say that schools are becoming busier and busier. Because of this, data is often looked at 'on the fly' or in passing, reducing staff members' ability to be systematic in analysing data and 'gold mining' for insights.

4. **Lazy Data Conversations:** In many schools data literacy among staff is assumed and specific protocols to aide in data conversations are deemed unnecessary. Then, when data is presented, staff may be silently confused about what they're expected to discuss leading to high variability in both the quality and outcomes arising from data conversations. From our experience, never assume either data literacy or agreed understandings for data conversations.

Return On Data:

The Nuances That Make or Break…

As we outlined earlier, the simple formula to gauge your school's R.O.D is:

$$(D + P) \times T*$$

right Data + right People x right Teams

Where *'right Data'* refers to the measurement of Lead Indicators (as opposed to relying on Lag Indicators); People refers to *'right People'* – making sure data is easily accessible in a timely manner to the people who can make the best use of it; and *'right Teams'* refers to having established High Performance Teaching Teams who can use Collaborative Data Conversation Protocols. Naturally the more lead data you can share to the right people the better. However, the force multiplier in this equation is in the Teams – the power of High Performance Teams using Collaborative Data Conversation Protocols. Let's unpack each element a bit further now.

D is for Data: But what is the right Data?

"Not everything that can be counted counts." - Albert Einstein

The first part of our formula is about measuring the *'right Data'*. Let's face it, there is an abundance of Data available to schools and, the first step to boosting R.O.D is to focus on the lead indicator data that is most impactful on school outcomes. A lead indicator is data that predicts something about to happen (whilst there is still time to modify the outcome or prepare for the impact). A lag indicator on the other hand is data that shows us the result of something that has already occurred.

A weather report on the news contains both lead data (i.e., the forecast for tomorrow's weather) and lag data (the summary of today's weather). In a typical school's annual/bi-annual reporting cycle, there is a strong focus on academic achievement and attendance data which are lag indicators – telling us what has already happened in learning and engagement.

In a High Performance School's monthly/termly reporting cycle there is a strong focus on student self-efficacy and collective teacher efficacy data which are lead indicators of subsequent learning and engagement outcomes. These lead indicators are far more useful forms of data for staff to analyse to improve teaching and learning than lag indicators such as post assessment achievement and attendance.

"In the same way we boost literacy among students by giving them more meaningful books to read we can boost data literacy among staff by giving them more meaningful data to analyse".

According to visible learning research (Hattie et al), two of the most important predictors (aka lead indicators) that have the biggest impact on student learning are the Collective Teacher Efficacy of teaching teams (effect size 1.57) and Student Self Expectations (AKA Self-Reported Grades – effect size 1.33) which can be measured and managed using a continuous measurement strategy. The third highest predictor – Teacher Estimates of Student Achievement (effect size 1.33) also appears to be a very useful lead indicator when implemented as a midterm strategy.

Thus, taking a lead indicator approach to data, High Performance Schools use continuous (i.e., weekly) measurement systems for both Collective Teacher Efficacy and Student Self-Efficacy and report this data on a minimum monthly basis to enable the results to inform ongoing adjustment to teaching and learning strategies to optimise school performance (schools using teacher estimates tend to do this at the 'mid-term' time point). We've previously written about our research into effective ways to continuously measure and manage both (1) student self-efficacy and (2) collective teacher efficacy.

P is for People: Data access to the Right People (at the Right Time)

Now that we've got the *'right Data',* the next part of our formula is about getting the data to the people – more specifically, the right people and in the right time. We need to filter data effectively to both (a) avoid giving the wrong people data they don't need (AKA firehose effect) and (b) giving the right people data at a time when they can make the most use of it. The keys to success in this step are (1) organising data into meaningful dashboard displays and (2) setting up effective distribution processes and accessibility parameters so key staff can be alerted to the availability of useful lead indicator data as soon as it is available.

Regarding the first step of organising data into meaningful dashboards and displays, the example on Page 26 shows you how you can quickly organise student self-efficacy and collective teacher efficacy data in a way that tracks against critical outcome measures. For some more detailed examples of primary, secondary and special education schools using some simple dashboard templates see the HPT Schools website (www.hptschools.com/downloads). Regarding the second step, we prefer the dual strategy of sending reports directly to staff as well as loading to relevant share portals increasing the likelihood of data being received and utilised in a timely manner.

50:40:10 Lead Indicator Dashboard — UPPER PRIMARY EXAMPLE

Category	Indicator	Prev. Yr School Average	Y4 T1 Mid	Y4 T1 End	Y4 T2 Mid	Y4 T2 End	Y4 T3 Mid	Y4 T3 End	Y4 T4 Mid	Y4 T4 End	Y5 T1 Mid	Y5 T1 End	Y5 T2 Mid	Y5 T2 End	Y5 T3 Mid	Y5 T3 End	Y5 T4 Mid	Y5 T4 End	Y6 T1 Mid	Y6 T1 End	Y6 T2 Mid	Y6 T2 End	Y6 T3 Mid	Y6 T3 End	Y6 T4 Mid	Y6 T4 End
Improving Attendance	Attendance Rate %	92.6%	97.3	96.0	92.4	91.1	92.7	92.0	91.5	91.1	95.8	95.0	92.5	91.9	93.1	92.0	92.3	91.5	95.1	94.7	92.5	92.6	93.1	92.5	92.4	92.1
	% less than 85%	9.7%	4.3	4.6	4.8	5.3	5.4	5.9	5.8	5.6	4.4	4.9	3.5	3.8	3.1	2.6	2.9	3.2	6.0	7.2	5.4	4.7	3.8	2.1	2.8	3.4
Lifting the Top	English A Standard %	19%	37	27	30	31	36	41	42	43	43	14	16	16	20	22	27	28	28	14	15	15	17	18	25	23
	Maths A Standard %	27%	36	36	40	44	47	49	50	50	50	19	22	17	20	26	28	30	30	20	25	23	28	34	35	36
Reaching Standard	English C and above %	91%	90	87	88	85	85	82	85	85	85	86	87	87	88	87	88	87	87	88	90	91	93	94	94	94
	Maths C and above %	94%	96	96	96	92	93	97	96	96	96	89	90	90	91	92	92	92	92	90	93	95	96	96	96	96
Safe and Disciplined Students	Average Daily Incidents (Minor)	4.5	0.30	0.51	0.45	0.45	0.38	0.49	0.41	0.38	0.50	0.43	0.60	0.72	0.75	1.70	0.75	0.68	0.40	0.57	0.50	0.45	0.40	0.49	0.40	0.41
	Average Daily Incidents (Major)	6.99	0.75	0.91	0.63	0.68	0.45	0.61	0.76	0.55	0.50	0.98	0.75	0.83	0.75	1.41	1.25	1.31	0.75	0.98	0.75	0.68	0.50	0.61	0.98	0.50
	Total Number SDAs	51	0	1	1	3	2	2	2	4	0	0	0	0	0	0	1	0	0	3	1	0	1	2	0	0
	Number of Students with SDAs	28	0	1	1	1	1	2	1	3	0	0	0	0	0	3	1	2	2	1	1	0	1	2	1	1
Positive Behaviour	Students on Bronze	5	5	3	5	4	5	4	7	10	3	6	3	4	5	13	7	10	2	5	3	3	3	4	3	2
	Green Slips P'Class P'Week (Av)	17	16	20	13	15	16	16	14	13	22	22	17	23	20	23	22	25	22	21	20	21	20	18	22	20
Student Self-Efficacy	Work Completion	81	89	83	84	83	88	82	75	83	84	88	73	52	76	81	69	75	82	83	79	83	92	72	77	81
	Level of Achievement	76	80	84	75	64	81	74	63	74	74	79	72	62	73	81	67	73	77	72	76	74	85	55	78	75
	Help Seeking	72	76	60	75	67	90	81	67	74	77	74	61	55	68	55	76	67	78	75	69	74	85	76	57	73
	Motivation	71	70	62	68	78	76	71	75	71	61	80	77	49	66	67	74	77	61	58	45	48	62	71	73	60
	Student Self-Efficacy Score	73	79	72	76	73	84	77	70	76	74	80	71	55	71	71	72	73	75	72	67	69	82	69	71	72
Learning Walls	3rd Teacher Walls Updated	98%	Y	N	Y	Y	N	N	N	N	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	N
Building Collective Teacher Efficacy	Team Data Wall Updated	96%	Y	Y	Y	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
	Team Activity Cycle Completion	81	76	78	64	64	71	74	76	66	87	85	76	74	71	81	82	82	83	82	84	85	86	78	76	88
	HPT Job Satisfaction	83	83	88	80	85	82	77	78	76	94	94	89	93	92	93	84	84	81	83	84	85	87	86	74	80
	HPT Performance Feedback	89	85	89	80	87	82	76	76	74	96	96	94	96	92	96	97	97	90	91	93	94	87	90	85	93
	HPT Peer Support	76	63	75	63	72	76	71	68	68	73	78	74	81	82	84	74	74	73	74	80	77	87	69	72	88
	HPT Work/Life & Wellbeing	82	77	83	72	77	78	74	74	71	88	88	83	86	84	89	84	84	82	83	86	87	87	81	77	88
	Collective Team Efficacy																									
Community Engagement	School Newsletter Engagement	26		40		34		29		27		29		26		25		26		33		24		23		22
	Non Payments (%)	9%		3		3		4		6		5		6		6		3		4		9		2		4

30

T is for Teams: High Performance Teams using Data Conversation Protocols

With the *'right Data'* accessible to the *'right People'* (at the right time) we bring in the last variable and force multiplier of the equation – Teams. The maximum Return on Data occurs when High Performance Teaching Teams hardwire data discussions into their activity cycle – by (a) displaying lead indicator data on team data walls, (b) engaging in informal check-ins and huddles discussing data trends and (c) explicitly using Data Conversation Protocols during team meetings to maximise the effectiveness of discussions, decisions and subsequent planning processes.

Regarding the first few points above, given the frenzied daily activity of most schools, to boost R.O.D it's vital to enable teaching teams to schedule time for data analysis and discussions. This can be done by designing activity cycles to sync with data updates and timetable explicit activities such as team meetings, targeted lesson plans and shorter huddles and warm up/reflection activities which focus on using data to optimise the next phase of learning and wellbeing activities. Regarding the final point about Data Conversation Protocols, it is important to develop explicit agenda items inside team meeting agendas to enable staff and students to manage time and the process of data discussions effectively, as well as ensuring that S.M.A.R.T. actions are the natural outcome of data conversations. Below is an example of simple protocol schools use for cyclical dashboard data conversations:

| Item 7 Strategic 2	ACTION PLAN/ DASHBOARD REVIEW/ DEEP DIVE* (*select one in cycle)	Presenter/ All	15 mins
	Action Plan Update: P1 (7min) – Scroll through action plan live noting updates to all items **P2** (8min) – 90 day sprint discussion on selected goal (as determined by chair) *Live Notes*		
	Dashboard Review P1 (3min): Review monthly dashboard data (elbow partners). **P2** (5 min) Round room pairs feedback (ie., What doesn't make sense; What looks too good/ bad to be true; What practices may need to change...) **P3** (7min) Exploration of key focus area (determined by Chair) and follow up SMART actions. *Live Notes*		
	Deep Dive (P1) Present strategic issue & question for discussion (use template) (7 min) **(P2)** Discussion / brainstorm (use whiteboard to track conversation) (7 min) **(P3)** Presenter comment on takeaway value of discussion (1 min) *Live Notes*		

Case Study:

Getting it Right at Helensvale State School

"Being able to see the alignment between our teaching team's collective efficacy data and their student's self efficacy data enables more targeted support which enhances our culture of learning and caring for each other."
                              - Heidi Booth, Principal Helensvale State School

Getting a very High Return on Data has been a critical success factor enabling staff and students to flourish at Helensvale State School during 2020. By implementing effective continuous monitoring of Collective Teacher Efficacy and Student Self-Efficacy, Principal Heidi Booth was able to systematically support the wellbeing and growth of both staff and students during a global pandemic – enabling the school to act as a buffer to the stressors staff and students were experiencing in the wider community.

By following the formula of R.O.D = (D + P) x T*, Heidi focused on making lead indicators the 'right data' gathering priority. Data was then distributed in weekly and monthly dashboard reports to the 'right people' (at the right time) and teaching team activity cycles that enabled data wall conversations, informal huddles and check-ins, and use of more formal explicit data conversation protocols during teaching team meetings to drive continuous improvement and adaptation in teaching and learning as the year progressed. As you can see in the data snapshot below – gains in Collective Teacher Efficacy (CTE) and Student Self-Efficacy (SSE) were strongly related to growth in student achievement – all amidst a global pandemic – well done Helensvale State School! You can watch a short video case study at www.hptschools.com/studentpulse.

Semester Trends (Cohort) - English, CTE & SSE
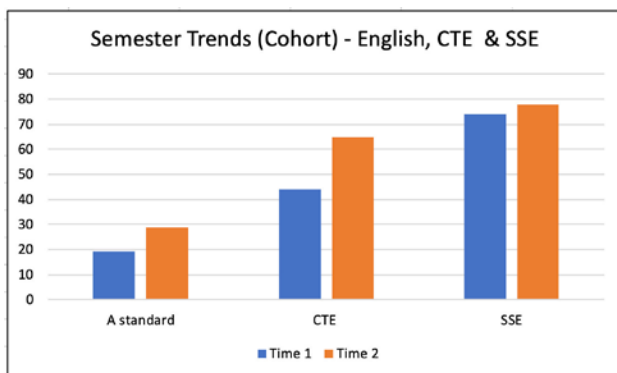
Bringing It Together

The trade secret among High Performance Schools is in their comparatively higher level of R.O.D – Return On Data. The simple formula to gauge a school's R.O.D is:

$$(D + P) \text{ x } T^*$$

right Data + right People x right Teams

Where *'right Data'* refers to the measurement of Lead Indicators (as opposed to relying on Lag Indicators); People refers to *'right People'* – making sure data is easily accessible in a timely manner to the people who can make the best use of it; and *'right Teams'* refers to having established High Performance Teaching Teams who can use Collaborative Data Conversation Protocols. However, the force multiplier in this equation is in the Teams – the power of High Performance Teams using Collaborative Data Conversation Protocols.

How would you rate your schools current R.O.D? When it comes to Data, People and Teams, what are you already doing well and where could you improve? Take action now. Get your school leadership team to audit your current R.O.D to set some improvement goals so all your staff and students can flourish in the year ahead!
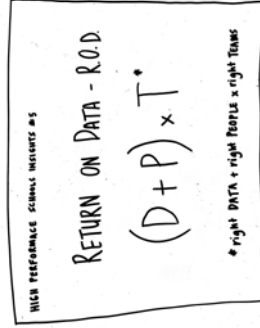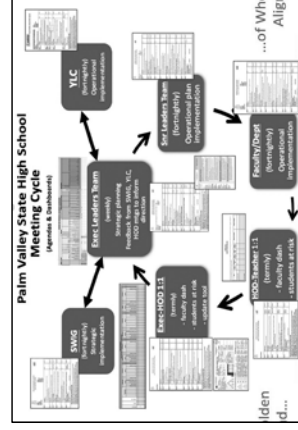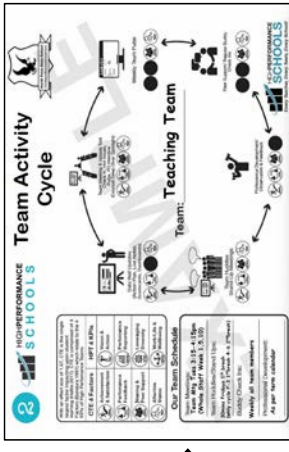
Chapter 2: Boosting Return on Data
- Chapter Summary -

- All schools generate a lot of data but Flourishing Schools stand out because they get a higher 'Return On Data' – their use of data generates higher levels of learning and wellbeing compared to their peer schools.

- Return on Data can be represented in the formula R.O.D = (D+P)xT* (*right Data, right People, right Teams) which can be used to assess the effectiveness of relevant school systems and processes.

- Right Data – refers to prioritising the measuring and managing of Lead Indicators such as self and collective efficacy rather than post hoc examination of Lag Indicators such as Attendance & Annual Results.

- Right People – refers to giving the right people the right data they need at the right time to be able to improve teaching and learning outcomes and requires customised dashboards which are updated and accessible in a timely manner.

- Right Teams – is about developing explicit Data Conversation Protocols that channel the collective genius of teams into effective analysis, interpretation and improvement strategy in the most time efficient and effective way.

SYSTEMS SNAPSHOT

Return On Data As A School Wide System

HIGH PERFORMANCE SCHOOLS INSIGHTS #5

RETURN ON DATA - R.O.D.

$$(D + P) \times T^*$$

* right DATA + right PEOPLE x right TEAMS

Aligning Data Cycles With School & Team Meeting Cycles

Palm Valley State High School Meeting Cycle
(Agendas & Dashboards)

Data Conversation Protocols in Meeting Agendas

| Item 6 Strategic 2 Items In Cycle | Action Plan Update (7min) Scroll through action plan live noting updates P2 (8min) 90 day sprint on selected goal. | Dashboard Review (3min): Review monthly dashboard data (elbow partners). P2 (5 min) Round room pairs feedback on trends/ anomalies P3 (7min) key focus area discussion and SMART actions. | Deep Dive Presentation (use template) (7 min) (P2) Discussion / brainstorm (whiteboard) (7 min) (P3) (1 min) Presenter takeaway actions from discussion. | Items Led by Sponsor | 15 mins |

Lead Indicator Dashboards Whole School Roll Up x Team

Team Activity Cycle

Team: Teaching Team

SPECIAL ED

SECONDARY

PRIMARY

Tools & Templates at: HPTschools.com

Boosting Your Return On Data
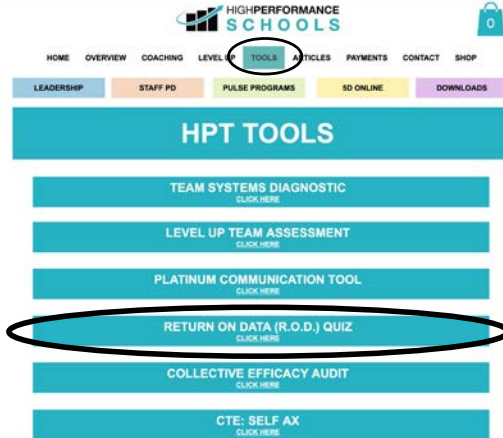
Next Steps: Toolkit

How can you boost your School's Return On Data?

Go to hptschools.com/tools and take the Return On Data (R.O.D.) Quiz to generate your School's R.O.D. Report to identify your current level of performance and suggested next steps.

SAMPLE R.O.D. Report

Next Steps: Quickstart Video

Channel: HPT Level Up!
Playlist: Leading Flourishing Schools
Title: Return on Data: Enables Staff & Students to Flourish (4.58)