Six case studies of innovation in professional learning and performance and development

From a horizon scan carried out by Innovation Unit on behalf of the Australian Institute for Teaching and School Leadership (AITSL)

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Learning with and from students
Harris Student Commission on Learning

In 2008, the London-based Harris Federation was fast becoming one of the most successful groups of academies in England. Aware that success needed to be maintained and enhanced as the Federation grew, Dan Moynihan (Chief Executive) posed a question: "How do we future-proof improvement across our academies?" The answer was to create new levels of engagement – ensuring that students and teachers were passionately involved in and excited by learning.

In this case we look at the development and impact of the Harris Student Commission on Learning, a research and development project set up to bring together hundreds of students and teachers to create a new design for learning across the Harris Federation.

Key features

Collaborative Face-to-face Required

Facilitated Situated Personalised

Incentivised Formal Informal

Sustained

Harris Federation

Location: London, England.

People: 27 primary and secondary academies educating around 20,000 students across London.

Context: A non-profit making educational charity with over twenty years' of experience running schools in and around London. Academies in the Federation outperform the national average and are oversubscribed by an average of four applications for every place available.

Student Commission on Learning

Mode: A 2-year programme of enquiry to explore and apply effective approaches to teaching and learning.

Scale: Hundreds of students and staff across 9 schools were part of the original Commission. The outcomes are being widely implemented across the Federation.

Cost: £50,000 over three years.

Learning about learning

The Harris Student Commission on Learning ran from 2009-2011. It was established to bring about:

- significant and lasting changes to teaching and learning
- a step-change in student engagement, motivation and learning

To achieve these changes the Harris Federation established an ambitious programme of horizon scanning and enquiry into the most effective learning approaches in the UK and abroad. This enquiry was co-led by students and staff who worked and learned together in powerful partnerships and teams. Teachers and students worked side by side to understand effective learning, then to test out new approaches in their schools and share their findings.

Learning from experts

In the initial enquiry phase of the commission, the focus was on gathering evidence of the best, most innovative and effective approaches to teaching and learning. A programme of 'Expert Witness Sessions' was devised involving small groups of students and teachers engaging with evidence presented by experts – some from within the academy chain and some from the world of research – giving groups the opportunity to interrogate their ideas.

Findings from the expert witness sessions were processed and collated into a publication that was shared with all staff and students across the Federation. The publication also highlighted the results of a teaching and learning survey which collected responses from over 2,600 students and 300 teachers.

Learning from innovative practice elsewhere

The commission created a wide range of other planned opportunities for 'learning about learning', including international visits to sites of best practice, and online discussions with students and teachers in innovative school contexts. Teams of Harris students and staff participated in study visits to High Tech High, a group of radical and very successful schools in San Diego, California, and to leading experimental charter schools in New York. They then brought their ideas back to the whole commission. In its second year the commission organized and delivered a 24-hour 'Learnover' in which groups of teachers and students posed enquiry questions in online discussions with schools around the world, including Sweden, Australia and the US.

Applying new ideas to classroom practice

Drawing on insights from the first enquiry phase, the commission developed and published '12 early ideas about learning'. These ideas then framed a deeper, more targeted phase of enquiry which first identified the specific practices that brought the ideas to life (what did they look like in the classroom?) and then established a series of focused in-school projects to test them out. Teachers and students worked together to identify enquiry questions and methodologies, deliver projects and report findings. They also took part in joint training in research methods.

In-school projects were wide-ranging, with many seeking to involve students more directly in the learning process – co-designing and co-delivering learning with their teachers. Projects included: student involvement in monitoring, evaluation and review; students as learning buddies; student-teacher collaboration and podcasting; the use of student observers in Science; and teaching with teachers.

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EVEN RETICENT PRACTITIONERS HAVE SHOWN A COMMITMENT TO COLLABORATIVE ENQUIRY – EXPOSING THEIR PRACTICE TO AND RECEIVING FEEDBACK FROM STUDENTS. THIS HAS ENABLED SEEDS OF CURIOSITY ABOUT PEDAGOGY TO DEVELOP INTO TANGIBLE, POWERFUL LEARNING EXPERIENCES FOR BOTH SIDES. "

Teachers are learners too

Through their involvement in the student commission, teachers visibly demonstrated an openness and willingness to learn, and this had a profound impact on both their practice and their relationship with students. The Federation's hypothesis was that, in a culture with learning at its heart, both students and teachers need to be part of the learning process. When teachers show that they don't have all the answers and are prepared to make mistakes in order to learn, they make a powerful connection with their students. In lessons where teachers are willing to say 'I don't know' or 'I wonder why that happened' they gain the respect of students and encourage them to step up and help find the answer or solve the problem in co-design teams with their teachers.

Students as observers and learning partners

Teachers commented that they were more willing to take risks in their classrooms having co-designed learning with students and many reported changes in their practice as a direct result of student feedback. One teacher, who was involved in a podcasting project with students, observed different kinds of learning conversations as a result of the collaboration: "Student commissioners and teachers have been able to discuss subject content in a focus group format, allowing students to identify topic areas that could be explained in more depth or in a different way. Although this kind of focus group analysis happened in the past, it was never expected that students would help solve the problems."

Student commissioners at Harris Academy South Norwood worked with teachers and leaders as part of the school monitoring, evaluation and review (MER) process. Students were trained in lesson observation and were involved in reviewing Modern Foreign Languages, Science, Music and History. The project was taken forward into a second year, with students also learning how to give constructive feedback to teachers and undertake work scrutiny. Over time, the staff involved increasingly saw students as active stakeholders who could rise to the challenge of improving learning.

The impact of the commission on teachers

The final report from the student commission ('A new design for learning') sets out the benefits that both student and their teachers have felt as a result of their involvement. It states that teachers were:

- exposed to new ideas and ways of delivering learning, and were motivated to try new practices
- able to empathise with learners and consider their own responsibilities as life-long learners
- challenged and motivated by working in partnership with students to improve learning
- given opportunities to reflect on their own practice at a much deeper level than they might otherwise do
- able to reconnect with what inspired them to teach through the process of learning about learning with students.

"STUDENTS ARE OUR CUSTOMERS – WHY NOT INVOLVE THEM IN LESSON OBSERVATIONS? EVERY DISCUSSION I HAVE HAD WITH A STUDENT COMMISSIONER HAS BEEN MEANINGFUL AND CERTAINLY INFLUENTIAL IN THE WAY I TEACH."

Students as discerning consumers of teaching and learning

A major goal of the commission was to enable students to reflect on and asses their own and others' learning in more discerning ways, thus motivating teachers to develop their practice in response. Through the opportunities afforded by the commission, especially the collaboration with teachers to design and test new pedagogical approaches, students became more informed, sophisticated and powerful learners.

The combination of explicit training and support (student commissioners took part in regular 'development days' as well as in-academy training), involvement in research and public events, and working closely with teachers, enabled commissioners to become knowledgeable advocates for new practices and to actively support their peers.

Significantly, this culminated in large numbers of students with dramatically enhanced levels of confidence, skills and capabilities. As these students' expectations and appreciation of learning shifted, teachers met the challenge and improved their practice as a result.

The legacy of the student commission

Two years after it started, the commission published its 'New Design for Learning'. This was a set of entitlements and opportunities that the Harris Federation committed to take forward to ensure that all learners and teachers across the Federation had consistent access to world class learning opportunities. Individual academies have taken forward the entitlements in different ways, depending on their own needs, contexts and existing practice, but the Federation has continued to gather, process and share the legacy of the commission's work.

As well as sharing the best practices taking place within the Federation schools, a toolkit was produced that would support other schools to design and deliver their own version of the student commission. Presented in two parts, the toolkit is available online and includes detailed guides setting out the thinking behind the commission, as well as hundreds of example resources developed by Harris academies. Since its launch the toolkit has been taken up with enthusiasm by schools and groups of schools from around the world.

Recent interviews conducted with teachers and leaders who were part of the student commission show just how powerful an impact it had on their thinking and practice. Rebecca Hickey, who was a Deputy Principal when the commission was running and is now a Principal at a different Harris academy, told us: "The entitlements are so a part of what I do and think. More like breathing. This is the sign we've got it right. It's a natural part of what I do as a leader."

Jane Fletcher, also a Principal, describes the role the entitlements for learning play in the school improvement: "They are fundamental and help set our direction and vision and are closely connected to the improvement plan. We look at gaps and then make changes - allocate budgets and staff, alter the timetable."
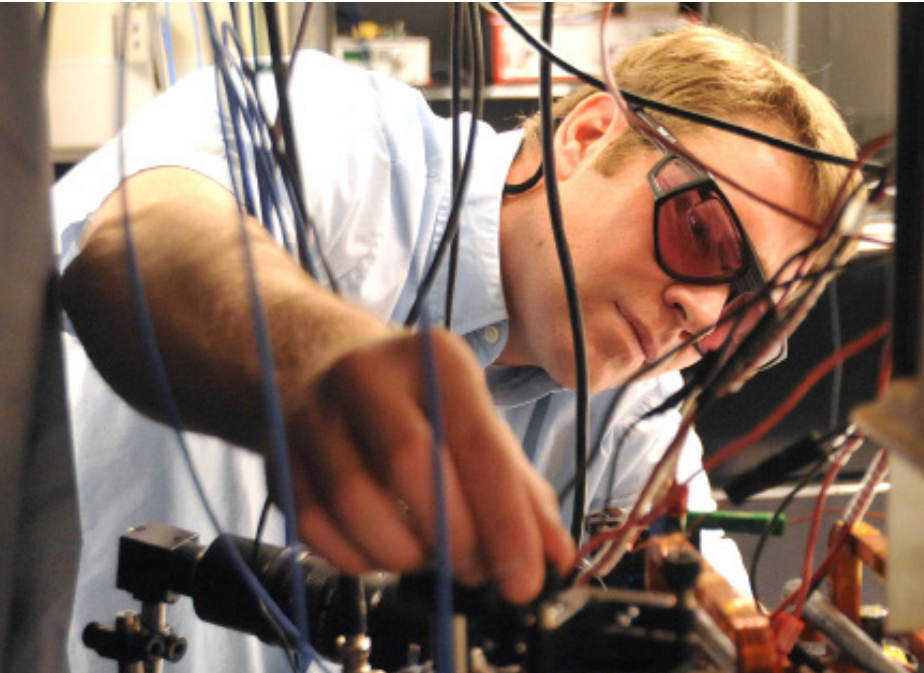
Find out more
Harris Federation – www.harrisfederation.org.uk
The work of the student commission - www.harrisfederation.org.uk/124/about-the-commission
The Student Commission Toolkit - www.studentcommission.org.uk

Bringing HR into the 21st Century

U.S. Air Force Research Laboratory Personnel Demonstration (Lab Demo)

In 1997 the Research Lab of the U.S. Air Force (AFRL) was struggling to retain its scientists and engineers in the face of the competitive salaries and flexible employment practices of fast-moving technology companies. Constricted under the personnel regulations that applied across the U.S. armed forces, they developed the 'Lab Demo', a temporary authorization to experiment with their HR practices.

In this case study, we describe how the resulting approaches have allowed AFRL not only to retain highly skilled employees, but also to develop and incentivise staff to keep the Lab at the cutting edge of technological change.

Key features

Required Offered Situated

Personalised Sustained Formal

Informal Incentivised

Air Force Research Laboratory (AFRL)

Location: Wright-Patterson Air Force Base, Dayton, Ohio (other bases located across the U.S.).

People: Over 10,000 employees, mostly scientists and engineers, who are responsible for the Air Force science and technology budget of nearly $2 billion.

Context: AFRL is the only organization within the U.S. Air Force solely dedicated to research purposes. The mission of the Lab has developed over time to incorporate changing perceptions of national 'threats', for example, response to cyber threats.

Lab Demo

Mode: A set of redesigned approaches to hiring, development and compensation of personnel.

Scale: First Lab Demo involved 2,500 scientists. In 2010 it was expanded to apply to all non-bargaining AFRL personnel (all who are not constrained by Union agreements).

Cost: Reallocation of existing budgets.

Creating alignment and a common language

The cornerstone of Lab Demo is the Contribution-based Compensation System (CCS), which ties employee pay and bonuses to the value of the individual's contribution to the AFRL mission.

CCS incentivises alignment between individual development and organizational goals. Under previous systems there was little relation between performance reviews and employee progression, and pay increases were attached to promotions into new positions, or gradual movement through pay grades. With CCS, budgets once used for grade and step-increases are pooled.

By creating 'broadbands' within each of the Lab's role types (Scientists & Engineers, Business Management and Professional, Technician, and Mission Support) employees can move up a pay scale whilst staying in their role, rather than having to move on to a new position to secure a higher salary.

Individual pay is based on an employee's Overall Contribution Score (OCS), which is calculated as an average of factor scores in four key areas. The factors describe the areas in which valuable employees contribute to the AFRL mission:

- Problem solving
- Communication
- Business management (or technology management for Scientists & Engineers)
- Teamwork and leadership.

Behind these key 'value' areas sit formal descriptors that define in detail what contribution is expected at each broadband level. As long as employees continuously increase their contribution score, they move up through the broadband levels and their salaries increase.

CCS creates a common language and understanding for feedback and review. It is the role of supervisors to establish expectations and ensure all employees have opportunities to contribute across each of the four areas. Employees who want to increase their scores can also seek out additional opportunities to have an impact.

The system incentivises both core and adaptive behaviours: clear descriptors of the four areas help to ensure everyone is performing at a basic acceptable level but also encourage employees to seek out new challenges that will increase their contribution.

A performance system designed and implemented by staff

The Lab Demo was revolutionary because it put employees in charge of designing the new compensation system. This emphasis on 'user insights' has also driven new decisions about the preparation of job classifications (putting these in the hands of lab managers rather than distant HR personnel) and continued updates to the CCS, which are always carried out under consultation with a cross section of employees.

Early on it was recognised that classifications for individual jobs were created by personnel situated many degrees – and many miles – from those doing the work. Local supervisors, who were in a better position to judge the requirements for specific jobs, were managing and monitoring performance according to often-arbitrary role definitions that were arranged within complex career paths. Lab Demo gave local supervisors the authority to classify roles, within a structure of a new, one-page classification document – the Statement of Duties and Experience (SDE) – that arranged all roles under four overall types.

Lab Demo and the CCS also create greater flexibility and distributed leadership. For example, AFRL has a tradition of cash awards for resolving tough problems or for personal achievements. Previously these had to be authorized at a level beyond the Laboratory, but under Lab Demo the Lab Commander can bestow these awards, authorize Technology Directors and middle leaders to do likewise, or create new competitions, incentives and opportunities.

Flexible professional learning

CCS operates to ensure the greatest possible alignment between the needs of the organization, and employees' performance goals and compensation incentives. Lab Demo also allows for fuller integration between employees' personal development

and learning, and what is recognized by the organization. The Developmental Opportunities Program (DOP) acknowledges a whole spectrum of activities as valid professional learning – the only constraint being that activities contribute to the organization's mission (as defined by the four areas, and the employees' job description). Under DOP, a researcher might take a sabbatical to teach at a college or university, or author a book or article.

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THE MAIN OBJECTIVE OF THE DEVELOPMENTAL OPPORTUNITIES PROGRAM IS TO PROVIDE 'RENEWED VIVACITY AND MOTIVATIONAL CHANGE OF PACE'. "

Impact of Lab Demo

A 2012 report on the AFRL Lab Demo records several benefits of the approach:

- Increased ability to recruit 'talent': 70% of Lab managers believe AFRL is able to attract high-quality candidates, up from 36% in 1996
- Cost saving: a job classification process which previously took weeks now takes hours
- Increased alignment and purpose: over 91% of employees know and understand the Laboratory's mission, and over 90% understand how their job relates to that mission
- Overall satisfaction: 98% of AFRL supervisors and 87% of employees are in favour of the Lab Demo initiatives

In both 2010 and 2011, there were no 'downward' broadband movements,[1] i.e. all employees were motivated to fulfil the expectations to increase their contribution to the mission of AFRL.

Being creative about incentives: Challenge Prizes

Lab Demo shows how greater flexibility can be introduced into employment practices in even the most rigid of industries. But, even without major changes to employment regulations, it is possible to apply some of the principles of the CCS in other sectors.

Challenge Prizes offer an interesting model for introducing additional incentives that can drive innovation, creativity and enhanced performance. First introduced in the science and technology sector, Challenge Prizes offer a reward to whoever can first, or most effectively, meet a clearly defined challenge. The idea dates back to the 18th century, when the British Government used an Act of Parliament to establish a prize for whoever could first devise a method for establishing a ship's precise longitude.

Private sector companies have found that prizes can overcome market incentives and drive collaboration. A $1 million prize offered by Netflix to improve the accuracy of predictions derived from movie preferences was won by a team that included employees of Yahoo and AT&T.[2] In the public sector, the UK National Health Service is offering innovation prizes for challenges such as reducing waste in the prescription of medicines, and incentivising work on longstanding problems that might otherwise never receive attention.

> "CHALLENGE PRIZES DIRECT AN INDIVIDUAL OR GROUP TOWARDS A PARTICULAR MISSION OR GOAL THAT IS INTEGRAL TO THE ORGANIZATION'S MISSION. REWARDS, OR PRIZES, ARE GIVEN BASED ON THE ACHIEVEMENT OF THAT GOAL, AS OPPOSED TO A RELATIVE MEASURE OF INDIVIDUAL 'PERFORMANCE'."

Find out more
AFRL – www.wpafb.af.mil/AFRL/
Lab Demo – www.wpafb.af.mil/library/factsheets/factsheet.asp?id=8080
Challenge Prizes – www.nesta.org.uk/areas_of_work/challengeprizes

1 2011/12 Cycle results
2 www.netflixprize.com/
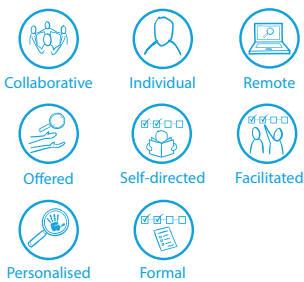
Pathways into open learning
EduPlanet21

The world of professional learning is undergoing a transformation. Every day, more teachers and school leaders around the world join online platforms where professionals are meeting, exchanging and exploring practices. In Australia, Edmodo and Twitter thrive and Australian teachers are leading the way in transferring informal social media participation into deep and effective professional learning.

This movement – described as 'open' learning in recognition of free and accessible nature of resources and platforms – is undeniably exciting. However, while the barriers to entry are low in terms of cost and practical arrangements, many educators do not feel prepared to engage with informal online opportunities.

This case study highlights a U.S. based provider whose platform supports teachers to get the best of the opportunities created by online and digital learning.

Key features

Collaborative	Individual	Remote
Offered	Self-directed	Facilitated
Personalised	Formal	

EduPlanet21

Location: Pennsylvania, USA. The online platform is used by participants all over the world.

People: The company was founded by Educator Bena Kallick and entrepreneur Jeff Colosimo. They currently collaborate with 16 'author experts'. These are predominantly former teachers who have since made a name for themselves through their offline and online writing and participation. For example, Kristen Swanson was a third grade teacher and teacher coach in the U.S. who went on to found the EdCamp movement.

Connecting educators

In 2011, Bena Kallick had been a professional educator for 30 years, working hard to introduce the principles of Habits of Mind to teachers and school leaders.[1] Her approach was typical of 20th century professional development, with little choice for participants and no time for follow up, and Bena was all too aware of the imperfections of this method. She knew that most teachers rarely had the time to continue thinking about things learnt on a 'PD day', and that, when imposed on a large group in that way, there was little chance that what she was offering would come at a moment when it was helpful and meaningful to the majority of the group.

Along with friend Jeff Colosimo (a successful K12 business entrepreneur and recipient of Ernst and Young's Entrepreneur of the Year award), they saw the opportunity for a new platform to reduce costs and increase productivity of interactions between professional learning providers and schools. More importantly,

they saw that such a platform could bring to individual teachers what she had come to enjoy as a leading educator in her field – a global network of fellow professionals to learn from.

Working with this network of contacts, EduPlanet21 was born.

Simplicity and flexibility

EduPlanet21 is a platform populated by a collection of 'Learning Paths': a set of four modules each made of 3–5 'lessons' on different topics.

Each lesson follows a recognisable format, which has been refined by observing the way early users spend time on the platform.

1. A presentation of key ideas, in video format ('view'). The makers found that users would only watch for 5-8 minutes before they began to be distracted into other activities that they could run simultaneously online – email for instance. All videos or presentations are therefore limited to no more than 8 minutes, and contain only the key 'need to knows' to begin to engage with the topic.

2. Deeper engagement in the form of an 'activity'. Further reading materials are provided in the resource library, or suggestions are made for a practice or activity that applies the ideas.

3. The next stage, 'collaborate', asks users to upload products from their trial of a new practice onto the social platform associated with the pathway, and to ask questions of other professionals.

4. The final section is 'reflection'. Each user has a personal journal to keep track of what they are learning and trying out. A lesson offers prompts for reflection and recording.

The formula provides a template which can be adapted. Education experts have contributed numerous learning paths, and EduPlanet21 is always looking for other groups to collaborate with – most recently, they have joined with Goldie Hawn's charity to create new paths that introduce teachers to practices of Mindfulness.[2]

" WITHIN A LEARNING PATH, LESSONS CAN BE PURSUED IN ANY ORDER, DEPENDING ON WHAT INTERESTS A PARTICULAR USER. "

Open to the world

On EduPlanet21, it is not just the authors who have the chance to create. An important design principle of the platform is customisation: once a school has signed up to the platform, users and leaders can add their own learning paths which might include particular material relevant to their context. The platform provides a basic format which is easy to edit and insert videos, readings, activities and prompts.

Overall, the platform is designed to be flexible. The series of lessons are called a learning path rather than a course because users begin a journey that they can stop and (re) start when they need to. In this way it is easier for the learning to be embedded – a teacher can go to a particular path when they have reason to, and easily navigate to the individual lesson that they most need.

EduPlanet21 has never tried to be a closed garden. While there is a cost for the platform – a necessary move in order to be able to pay the authors and content creators who work hard to communicate and present their ideas – EduPlanet21 is most definitely open to global collaboration and the creativity of users.

As such it remains open to combination with the more fluid (and free) world of online learning. Users who are familiar with other collections of materials can begin to add and customize learning paths for their school (or district), curating experiences for other teachers.

> USERS CAN CHOOSE TO CUSTOMIZE AN EXISTING LEARNING PATH, TO ADD A VIDEO OR REARRANGE MATERIAL, TAKE THINGS OUT WHICH MIGHT BE LESS RELEVANT OR ADD ADDITIONAL PROMPTS.

Champions for professional learning

Recognising that some users were more engaged in the customization and collaboration opportunities than others, EduPlanet21 created the position of a 'social learning champion' – a teacher who is nominated or self-nominates to drive collaboration in the social spaces. Schools and districts are more than willing to arrange recognition or reward for these individuals, such as credit for accelerated job progression, or merit pay.

The simple and reliable path format is an entry point for those who might not want to have to seek out their own learning, or struggle with too many choices. There are recommended sequences through the paths for those who prefer not to chop and choose. But for those who feel constrained by one-size-fits-all learning opportunities, the platform is open to being stretched to meet their needs.

Meet the speaker

The champions are just one way in which EduPlanet21 is promoting collaboration and social learning. To meet a need for real-time interaction, EduPlanet21 holds virtual conferences. Participants who sign up are provided with relevant learning paths a couple of weeks in advance, and authors offer guides as to which lessons to focus on as pre-reading.

Through their data monitoring, EduPlanet21 can see that participants do engage in this material in high numbers.

On the day of the virtual conference, presentations are aligned with school schedules (though conferences increasingly run at alternative hours as the non-U.S. audience grows!). Teachers can fit sessions into their school day – and join the school day of others. One recent conference 'visited' (virtually) a school using habits of mind practice. The principal, teachers and kids described their experience and participants were able to interact and ask questions at a practical level.

For increased flexibility, all conferences are also recorded and made available to subscribers afterwards.

Co-ordinating open learning

While still learning ways to bridge gaps between the enthusiasts and sceptics, EduPlanet21 represents an important point of difference – and potential advantage

– over fully open and informal opportunities in that it offers school leaders the potential for co-ordination and oversight. Leaders can track the learning paths of different teachers, or recommend – or even construct – particular paths for a whole school. This year, EduPlanet21 has offered a Learning Pathway entitled 'Professional Learning in the Digital Age', with the aim of helping participants "turn professional development into something that you do, not something that you get".

What we are seeing is learning management systems break out of their dull, walled garden confines and truly provide a bridge to the world of informal professional learning.

Linking up open learning

If professional learning and performance and development open up to online opportunities, organizational co-ordination represents a major challenge. Common platforms, designed specifically for use by schools and teachers, offer one way of overcoming this problem.

Over time, we may see the strengthening of their offerings through the integration of different online ventures. 'Collaborate' might take the form of an exchange facilitated by a distance observation platform. Companies like Edthena[3] or BloomBoard[4] offer such a platform where teachers can upload a video of their teaching from any recording device (say, a smartphone). Their coach or mentor – who might be in another school – can view the video and add time-synced comments – when teachers watch their video back, comments will pop up in the moment. Goal-setting and tracking tools are built in for ease of sharing between pairs and teams.

Suggestions for activities might be enriched by a library similar to that offered by the Edvation, makers of a private professional learning platform, pd21.[5] Their In2Class library features 150 project-based and technology-enabled activities. The aim is that these activities provide a high-support springboard for teachers to begin directly using these approaches in their classroom, giving them the experience and confidence to begin to adapt and experiment with their own projects, and giving them practice to develop fluency with technology.

Most of these platforms aim to incentivise continuous development, but for teachers or schools working towards particular professional learning goals, Open Badges could provide another means to co-ordinate and make visible school-wide online learning.[6] 'Badges' are a digital signature that is attached to a set of evidence of learning. In the world of online, anytime learning, users often incline towards 'trying things out' rather than deep development. Badges offer a way of marking out those who are sticking with and really developing an area of knowledge and skill.

Organisation-specific, career-long learning
Infosys

Infosys is a multinational provider of information technology support and consultancy and one of India's largest traded companies. Founded in 1981 as a seven-man start-up, it now hires between 30,000 and 40,000 new employees each year. Incoming staff are well-versed in engineering - the result of India's highly competitive education system - however Infosys finds they are often lacking the right dispositions to operate effectively in the work place and to represent the Infosys ethos and values. Moreover, as a company in the IT sector, Infosys face the sharp edge of the accelerated pace of research and development, where each new technology represents a new learning requirement for employees.

In this case we explore how Infosys manages these challenges by providing carefully crafted on-boarding training; and supporting continuous, relevant learning and development paths throughout an employees' career.

Key features

Collaborative Face-to-face Required

Facilitated Situated Intensive

Formal Certificated

Infosys

Location: Headquarters in India, with 87 software development centres and 69 sales offices located around the world.

People: 155,629 employees; majority (79%) are software professionals.

(Market) context: Leaders and employees are under pressure to develop and adapt their skills. In March 2011 Infosys launched an 'Infosys 3.0' strategy to grow the company's work in high-end consulting, and increase their rate of product innovation.

The Global Education Center

Location: Mysore, India.

Timing: Initial training programs last around 6 months. Trainees attend classes between 8.30am and 6pm each day.

Mode: Both blended and highly facilitated, led by in-house trainers who also work 'in the field' for Infosys.

Cost: The GEC costs $123 million each year. Infosys spends an average of $4,000 per trainee (Rs. 250,000) across all training programmes (average time 16 weeks).

Accreditation: Certified; Infosys training is well-recognized across the ICT industry.

Placing learning at the Center

Faced with high demand on professional learning, Infosys created their own internal provider: a corporate university in the form of the Global Education Center (GEC) in Mysore, India. The GEC is the heart of all training activities at Infosys, the largest of the 9 training centers the company has in India. The vast, manicured campus can accommodate up to 13,500 new recruits, and provides a base for new and existing employees to live and learn intensively. The campus is equipped like a five-star hotel and incorporates the largest corporate-owned library in India – created as a statement of the place of knowledge and learning in the company's values.

- 1.3 million days of training every year
- 50% for new recruits and 50% for existing employees
- 10 full days of learning time each year per employee
- Led by a 780-strong team of educators – 50% Academics or PhD holders, and 50% former business employees

Keeping up

The initial and continuous education programs at Infosys are managed by Nandita Gurjar, the Senior Vice President who also leads the company's research efforts. Crucially, the two portfolios inform one other: teams continuously scan for new technologies, both in the field and through links with universities to follow what is in the pipeline, and training courses are designed with a view to what new learning requirements are on the horizon.

" DEVELOPING FLUENCY WITH A NEW TECHNOLOGY WILL ALWAYS BE COUPLED WITH A PROGRAM TO INTRODUCE ASSOCIATED BEHAVIOURS – PRACTISING HOW TO USE THE TECHNOLOGY WITH CLIENTS, AND HOW TO DESCRIBE IT IN CONVERSATION. "

Multi-dimensional learning

The central principle of all Infosys training, whether for new or existing employees, is that new skills are multi-dimensional. Training is designed to cover all dimensions, i.e. the specifics of a new technology, the necessary knowledge and practices of a domain, and associated behavioural training. While some training takes place through e-learning, practical, face-to-face modules are always included.

Training is just one component in improving performance. Working with their manager, each employee has an individual development plan which is formed on the basis of appraisals. Managers provide direction as to what opportunities will be most beneficial: training, mentoring, or peer learning.

At Infosys, professional learning is coupled with carefully orchestrated assessment. Participation in training represents one step in developing a new skill. Through a combination of training and other experiences, employees can build up to the assessments and demonstrations of performance that lead to a new certification – a ticket to a promotion or a different career path.

Assessments are derived and updated using the 'Genome Model', pioneered by Dr. Subraya, Dean of The GEC.[1] The method was designed to create maximum alignment between assessment, course objectives, and the real world learning needs of Infosys employees.

Demonstrations of learning and a reliance on proper assessment are built in from the start of life at Infosys. As recruits, self-assessments are voluntary but over 95% of students do them every day. These assessments accrue to give each trainee a traffic-light indication of their performance level – green, orange, or red – and trainees self-monitor their progress to ensure the group remains on track together. Dr. Subraya

feels it is vital all trainees feel this sense of communal progression in their development: as he says, 'Learning does not happen in islands here…it all builds on itself, it is all sequential'.

Learning at Infosys is primarily collaborative. New recruits spend mornings studying new material, but in the afternoon they are presented with a real-world problem and tasked to work together in groups to come up with a solution. Having presented their ideas, the lecturer will pick the best and then the whole class will work to improve it - coming up with a "better best" together.

The chance to engage in problem-based work is, for many trainees, a very different experience from their college education. Sidart, a trainee, observed: "[here] concepts are always employed directly. You understand the significance of what

> " LEARNING DOES NOT HAPPEN IN ISLANDS HERE…
>
> IT ALL BUILDS ON ITSELF, IT IS ALL SEQUENTIAL. "

Evidence of efficacy

The latest evaluation of trainees found that the training they received at GEC tallied 98.8% with the real life demands of the work place 6-8 months into their placements.

Initial training at the GEC represents value for money for Infosys. Trainees are not contractually obliged to stay – either during or after the training period – despite receiving a salary for training. But less than 1% of trainees leave, and their average employment time of 3-5 years is plenty of time for Infosys to make a return on their investment in training.

Keeping the magic: continuous development

Given HR solutions are a core part of Infosys business, it is unsurprising that they have sophisticated processes for performance reviews, feedback, and goal-setting that are seamlessly accessible across the company. 'Performagic' – the company's integrated platform for performance management – ensures individual targets and goals are all aligned with corporate objectives. Performagic's 'cascading' goals allow employees and managers to select potential goals within a defined hierarchy: from corporate, to office, to teams, and individuals.

Training forms part of formal performance management cycles, but employees can also opt into training by choice, in order to pursue a particular interest or change career path. Additionally, an employee who is under-utilised on a project will likely use the time for re-skilling – to find a new way of contributing.

Being an 'Infosycian'

While the review and ranking system of Performagic incentivises consistent high performance, another important factor in motivating employees across the company is a shared set of values.

The strong code of ethics held by the founders is expressed by the acronym 'CLIFE', standing for Customer focus, Leadership by example, Integrity and transparency, Fairness, and Excellence in execution. The phrase is well-known and frequently referenced by employees, and the Infosys Leadership Institute has been created to embody and carry forward these principles as the founders gradually retire.

Integration in other sectors

As a multi-national telecommunications company, Infosys presents a very different context from the majority of schools. Yet the model of creating highly respected, intensive professional learning experiences tailored to the needs of the organization is already appearing in public education. A handful of individual schools are taking greater responsibility for initial teacher preparation and in some cases – as at the High Tech High schools in California – their professional learning is a major attraction for staff.

At the opposite end of the spectrum, other large companies have demonstrated that it is possible to link real-world job needs to learning needs in a highly orchestrated way, even when those needs are more opaque than up-skilling in ICT. At Google, the crack 'PiLab' team within HR submitted years-worth of employee surveys and performance reviews to their own analytics process. They produced a set of recommendations for the ideal manager, and then devised a development programme based on those guidelines. 70% of the lowest rated managers saw significant improvements in performance as a result. When asked to comment on the success of the program, Michelle Donovan of the Goole Management Effectiveness Team said it was the use of their own data – the managers respected guidance that came not from a manual, but from their own employees' feedback.

Find out more
Infosys – www.infosys.com
PiLab – http://googleresearch.blogspot.co.uk/2012/06/hello-sciencemeet-hr.html

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1 www.lidi.info.unlp.edu.ar/WorldComp2011-Mirror/FEC3376.pdf

Design-led models

Me PD + Design Thinking
for Educators Toolkit

Design thinking – or human-centred design – is bringing an entirely new approach to industries from financial services to the energy sector. In pockets around the world, including Australia, it is having a profound effect on the work of educators.

In this case study, we look at two design-led approaches to professional learning (PL) and performance and development (P&D). In the first, the leader of PL and P&D in a school used design to rethink opportunities for teachers to powerful effect. And in the second, teachers are using design directly to develop their teaching practice.

Key features

Collaborative	Individual	Face-to-face
Remote	Required	Offered
Self-directed	Situated	Personalised
Sustained	Informal	Incentivised

East Palo Alto Phoenix Academy (EAPA)

Location: East Palo Alto, California.

People: 18 teachers, 3 Counsellors, 160 students aged 14-18, all first-generation, 93% qualify for free/reduced lunch.

Context: A public Charter high school in the Aspire Network. Established in 1999, Aspire operates. small, high-quality public schools in low-income areas. EPAPA was founded in 2006, and now has a 100% four-year college acceptance rate.

Me PD

Mode: Self-directed.

Timing: Equivalent to regular professional learning time of one half Friday per month.

Cost: Free (other than time cost) – potential for additional allocated budget

Certification: No/Dependant on choice of program.

Approach 1: Using design to rethink professional learning

In 2012 Melissa Pelochino was Academic Dean at the Phoenix Academy, one of the high-profile Aspire public schools in the U.S. Melissa was responsible for the quality of instruction across the school, which included provision for professional learning. The school had a Friday afternoon slot which she was expected to fill each week, but a number of teachers – including the schools' most experienced teachers – found the afternoons unhelpful and a waste of time.

Recognising she was facing a design challenge, Melissa, who had attended a design thinking Bootcamp in Stanford's famous d.school five years previously, applied the key design thinking steps to the problem: understand; ideate; prototype; test. The result was an entirely new approach to leading professional learning within the school.

Engaging with users

As the first important step towards redesigning the school's professional learning opportunities, Melissa interviewed the four longest-serving teachers to fully understand their wants and needs. Drawing on their responses and additional interviews with adult learners in industries as diverse as information technology, culinary arts and the military, Melissa pushed herself to generate the wildest ideas possible about what professional development (the U.S. term for professional learning) at Phoenix could look like. She eventually came to the point of breakthrough – 'no PD'. Until then she had been working within the confines of the Friday afternoon slot, but as soon as she had accepted no PD as a reasonable idea, it opened up a whole new range of possibilities.

A key insight Melissa gathered from her 'users' – the teachers she'd interviewed – was that it was important they could follow their passions and learn about things they cared about. Melissa put this insight at the heart of her redesign and the result was Me PD.

> " I HAD BEEN DESIGNING PROFESSIONAL LEARNING BASED ON WHAT I THOUGHT TEACHERS WANTED FOR TWO YEARS. IT WAS ONLY WHEN I WENT TO THE TEACHERS AND INTERVIEWED THEM THAT I CAME UP WITH SOMETHING INNOVATIVE. "

Passion-led professional learning: Me PD

Me PD allows teachers greater choice over their professional learning. As its tagline states, it is "PD picked by you, for you, based on YOUR interests and needs as a professional".

Me PD integrates learning time into the real lives of teachers. Rather than taking part in a one-off seminar, which is unlikely to result in sustained implementation, development and change, a science teacher might use their Friday afternoon to take a series of online classes on an emergent topic, or a history teacher might get to a new exhibition to arrange a visit and research a learning experience for their class. Alternatively, teachers can use their time to plan for the following week, and use the smaller amounts of extra time freed up each day to engage with an online community of teachers using social media.

Me PD allows for a much broader understanding of what professional learning can be. One teacher, who struggled to stay in control in times of stress, joined a yoga class to learn to stay calm and balanced. Another teacher read six books she had been dying to read, and another signed up for a master's program. By giving teachers time and space to develop their own learning and passions, their in-class time benefited.

Balancing flexibility and accountability

Teachers taking part in Me PD collect and share evidence of how their learning is influencing their practice in the form of a blog or written reflections which incorporate lesson plans, student work or video or photos from lessons. Any method of documentation is allowed provided it demonstrates that a teacher is developing their practice as a result of their new learning. Feedback sessions are critical to help teachers build the bridge from their learning to their classroom practice.

There are clear benefits to letting teachers take control of their learning choices. Enabling teachers to follow their passions unlocked a significant amount of discretionary effort and energy, and the EPAPA teachers consistently went above and beyond in terms of their commitment of hours – far exceeding the minimum allocated professional learning time.

> "…TEACHERS WENT WAY ABOVE AND BEYOND IN TERMS OF THEIR COMMITMENT OF HOURS AND FAR EXCEEDED THE MINIMUM ALLOCATED PROFESSIONAL LEARNING TIME."

Key features

Collaborative   Individual   Remote

Self-directed   Personalised   Informal

IDEO

Location: East Palo Alto, California.

People: 550 employees, 8 Leads specialise in Education.

Context: Consultancy specialising in user-centred design, founded in 1991. Partner with corporations, NGOs, and other organizations to innovate and solve design challenges.

Design Thinking for Educators Toolkit

Created in partnership with Riverdale Country Day School, an independent K-12 school in New York City.

Mode: Self-directed, with potential for online support.

Timing: Optional/variable. One design cycle might take anything from a few hours to a few months.

Cost: Free to download.

Certification: None.

Approach 2: Design-led practice development

Design thinking in a (virtual) box

In 2009 IDEO created a toolkit introducing the process of human-centred design for use by NGOs and social enterprises working in developing countries. The toolkit was an instant success, winning Gold at the International Design Excellence Awards (IDEA) in 2009.[1] It has since been downloaded over 74,000 times and, with funding from the International Development Enterprise (a Bill and Melinda Gates Foundation initiative), spawned its own website, HCD Connect, which aims to foster an online community of users who can find like-minded helpers as they use the toolkit 'in the field'.[2]

Seeing the popularity of the HCD toolkit, IDEO worked with teachers to create a toolkit that would bring design thinking specifically to educators. The creators were inspired by a partnership with Riverdale Country Day School, which allowed their designers to spend time working closely with teachers on their day-to-day challenges and to get an insight into the larger structural challenges of education in the 21st century.

To create the toolkit IDEO modelled the processes of design thinking; observing the teaching environment, listening to teacher perspectives, and seeking to build a tool that would respond to their context and needs.

A key priority was that the toolkit should be flexible, and possible to use in short amounts of time. The second version includes a 'quick start guide' so teachers can start working through a practical design thinking process as soon as possible, taking them through the key steps:

• Discovery and Interpretation (Understand)
• Ideation (Idea Creation)
• Experimentation and Evolution (Prototype and Test).

The toolkit includes a guide and workbooks to provide structure and example responses, providing solo users with pointers to see how each part of the process might develop. Using the toolkit in collaborative PL or planning time at school, a group of teachers might decide to tackle all manner of persistent and/or complex problems. In particular, the design process relies on gaining insights about the nature of a problem through the 'users' or 'consumers', i.e. pupils, parents, teachers or the wider community of a school.

A mindset conducive to learning

The main strength of design thinking is that it can be boiled down to a few key principles, heuristics, and mindsets. It gives schools, leaders, and individual teachers the tools and confidence to pursue challenges they might otherwise avoid. As the toolkit states: "Design Thinking is about believing we can make a difference, and having an intentional process in order to get to new, relevant solutions that create positive impact".

Design thinking recognises that failing is a step on the way to getting it right. Karen, a teacher who worked with a design team to bring in a new school-wide redesign, said, "Again and again we said, 'we can't do this', and the design consultants came back to us and said, 'but you are doing it'".

The perspective was revolutionary for Karen, who notes "optimism is not lacking in schools, but it's all reserved for our students". As a teacher, she always rushed to reassure students their goals were manageable and setbacks are to be expected, but she found that voice lacking when it came to the development and transformation of her own and her colleagues' practice.

There is not yet as sizeable a community surrounding the Toolkit for Educators as there is for the HCD Toolkit in the NGO world, but design thinking is beginning to gain ground as more and more teachers find it helps them to make sense of the developmental aspect of their work.

The faculty at Ormondale Elementary School uses design to address the needs of their evolving student body

> The faculty at Ormondale Elementary School in California wondered if they were preparing their students well for the future. They decided it was time to design an approach to teaching and learning that was up to date and relevant for the 21st century.
>
> Collectively, they embarked on a design journey and came to an approach they call "Investigative Learning", which addresses students not as receivers of information, but as shapers of knowledge. The faculty continues to evolve and share this approach with new teachers through the creation of a Manual of Investigative Learning to keep track of their philosophy and methods. They have gained support from their school board, and have become recognized as a California Distinguished School.

Find out more
Stanford d.school in Education - http://dschool.stanford.edu/k-12-lab/
EPAPA and the Aspire Network – http://www.epapa.org/
IDEO – www.ideo.com
IDEO Toolkit for Educators – www.designthinkingforeducators.com/design-examples

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1 www.ideo.com/news/archive/2009/07/#pos3638
2 www.hcdconnect.org

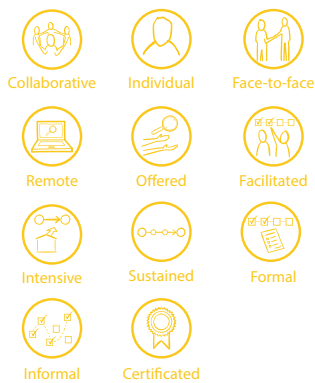# Disciplined inquiry to shape professional learning
Spirals of Inquiry

An inquiry-led approach to professional learning, performance and development can take a number of forms. Focusing inquiry around a 'cycle' or 'spiral' of driving questions is a method widely used in school improvement. But those who put it into practice – and the researchers who have led this work, Helen Timperley and Viviane Robinson and the University of Auckland, and Linda Kaser and Judy Halbert in British Columbia – also see spirals or cycles of inquiry as a means to individual improvement and growth.

In this case study, we see two ways in which an inquiry-led approach operates to shape professional learning and development at different levels: at a system and at a school level.

Key features

Collaborative

Individual

Face-to-face

Remote

Offered

Facilitated

Intensive

Sustained

Formal

Informal

Certificated

Networks of Innovation and Inquiry (NOII)

Created in 2000 (originally as Networks of Performance Based Schools). Funded by the Ministry of Education.

Timing: Schools within the networks take part in a spiral of inquiry over the course of each year.

Certificate of Innovative Educational Leadership (CIEL)

Location: Vancouver Island University, British Columbia.

People: Participants are education professionals in or aspiring to both formal and informal leadership positions. Most also take part in a Master's program at the University.

Timing: Participants take part in an 8 day bootcamp, followed by a year of structured engagements in an online community, culminating in another 3 day summer gathering.
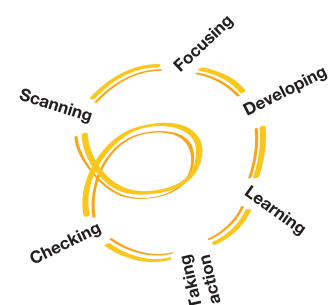
Cost: $4,470 spread over 2 semesters.

Accreditation: The Certificate can be taken discretely, or forms part of a M.Ed degree.

A Spiral of Inquiry is focused by a series of questions, which lead continuously back to the first

What is going on for our learners?
What does our focus need to be?
What is leading to this situation?
How and where can we learn more about what to do?
What will we do differently?
Have we made enough of a difference?

(Halbert and Kaser, 2012)

Example 1: Taking inquiry system-wide

In British Columbia, something big is happening. Whilst elsewhere individual schools have proven that continued progress with inquiry-led development can transform the life and impact of a school, in BC a whole system is rumbling its way towards this transformation.

There are many parts to this story, but one recent piece of the puzzle is a program focussed on preparing leaders with an inquiry mindset, established by Linda Kaser and Judy Halbert.

Starting new cycles

For 13 years Linda and Judy have been working with education leaders in British Columbia to develop Networks of Innovation and Inquiry. As the networks have grown, so too has the need for leaders who are prepared to stimulate and guide a school or district in a continuous process of inquiry and development. To meet this need, a new program was born: the Certificate of Innovative Educational Leadership (CIEL).

CIEL is structured around the spiral of inquiry approach, with participants immersed in the practice during an initial intensive boot camp, and then supported to carry out an inquiry in their community over the course of a year. Their efforts are turbo-charged by collaboration with a global community of forward-thinking educators around the world via a link between CIEL and the OECD Innovative Learning Environments project.[1] Making the most of the space for online collaboration, participants reach out to the leaders of schools or areas whose cases they have studied for CIEL.

Stimulus also comes from within the group: CIEL participants are diverse, representing educators at every stage of their career. The program design allows working professionals to take part, with on-campus time reduced over the years to the minimum possible to achieve an interdependent community.

Despite a relatively short (and therefore cost-efficient) period of initial contact time, the intensity of interaction induces continued engagement of participants throughout the year – and in many cases, for years afterwards: the Networks seminar held every spring offers opportunity for a CIEL reunion, and close to 200 return each year. Getting them to leave after the social proves the hardest part of the event.

The real achievement of the program is the transfer of this good will and energy from the small group of participants into a community-wide effort to improve learning. In two rural towns that form one of the smaller districts in British Columbia, home to many members of a 10,000 year old Aboriginal community, a process of inquiry has been informally led by two graduates of the CIEL program. As with all of the networks, the spiral culminates in schools holding an exhibition and event to showcase their learning over the year. The reception was so large this year that next year they have decided to hold it in the hockey stadium – the highest honour Canadians will bestow!

"
LEADERS WITH DECADES OF EXPERIENCE HAVE COME THROUGH THE PROGRAM TO DESCRIBE THEMSELVES AS BEING AT THE START OF A 'NEW CAREER', HAVING FOUND ENTIRELY NEW WAYS WAYS TO STIMULATE ACTION IN THEIR COMMUNITY.
"

Propagation

The impact of the inquiry approach across the system continues to grow. In 2012, the networks formed a partnership with the Principal's association to produce a handbook on Spirals of Inquiry. It was intended to provide a little additional funding for growth and sustainability.

The book has sold 50 copies a day since its publication, and has fuelled an acceleration of the spread of an inquiry-led approach to development. As it becomes increasingly embedded across districts, leaders can begin to really speak of a whole system where continuous, deep learning and development are the norm, not the exception.

Key features

Collaborative	Face-to-face	Required
Offered	Facilitated	Situated
Sustained	Formal	Incentivised

As developed by Helen Timperley and Viviane Robinson, a teacher inquiry and knowledge-building cycle uses a set of core questions and steps to advance valued outcomes

Pt Chevalier Primary School

Location: Auckland, New Zealand.

People: 35 staff, 600+ students. Led by Principal Sandra Aitken.

Context: A large, inner-city primary school with a small Maori population but a strong commitment to biculturalism.

Example 2: Embedding inquiry cycles within a school

A trajectory, not a leap

Viviane Robinson's mantra is "Focus on one thing in order to learn how to improve". This is her key message for schools embarking on an inquiry-led approach.[2]

Point Chevalier Primary School have been working with cycles of inquiry for over a decade. At the beginning of a cycle, the whole school works together to identify development goals, set targets and devise ways to get there. Then individual teachers work with their leaders to shape their own goals, in line with those of the school.

In school improvement programs, inquiry cycles are most effective when all teachers are on the same path, working towards the same school-wide goals. At Pt Chev, however, they have made a gradual change to this model, introducing the opportunity for every teacher – and every student – to have their own inquiry goal. At the same time, teachers also tackle issues identified by school-wide data, which are seen as challenges shared by the professional community of the school, not problems for a particular year or teacher to solve alone. Vital to the combination of goals has been the steady embedding (since 2007) of Assessment for Learning (AfL).

Experience from the U.K. suggests that in schools that 'do' AfL, about 80% practice it only in a superficial way, with only 20% really understanding its deep principles and the underpinning shift in power relationships. In Pt Chevalier the number of teachers who really 'get' AfL is closer to 100%. Having gradually embedded the practice over time, teachers are engaging deeply with issues associated with AfL and how it operates in class and for learners. For instance, it had become clear through inquiry that teachers and students were working with completely different sets of assumptions. Teachers were astonished that 5 year olds could give articulate feedback about what processes would help their learning, and increasingly teachers are beginning to base decisions about their own learning and development needs on what they find out about how their students are learning.

Innovating, not innovation

The school has continually tested the boundaries of their commitment to putting students and their learning at the centre of their practice. Practices which might typically be associated with performance management have instead become opportunities to let students' lead teachers' professional learning.

Teachers work with students to analyse and interpret whole school attainment data, and together they identify what as a group they really need to focus on and learn about in their inquiry. This has a powerful motivating effect. Last year, when it emerged that at a school level, boys' writing achievement was much lower than the girls, the students (and the boys in particular!) were keen to jump on this and make it a focus for turnaround.

A further – yet more radical – experiment is enabling older students to write their own reports. Teachers continue to report to parents in writing twice a year as they are legally bound to do, but in a parallel process they are handing over this responsibility to students, providing them with full information of what the general requirements are, and supporting them as they report on their own progress.

Developing capacity and trust

As the school as a whole has grown more comfortable with innovation, the leadership team is clear that they need to remain open to new ideas. Usually it is a teacher that comes up with an idea, which they can then trial with a group to see whether it helps.

Naturally innovation tests existing 'best' practice. When teachers said they could not plan for a whole week in advance if they were to be true to the principles of AfL, the Principal had to take a deep breath before allowing planning just two days ahead at a time. But everyone could quickly see that this method was better: the teachers can focus on planning when it really matters and the time they have is better spent.

An inquiry mind-set means accepting that not everything will go right at the first try. The school has recently introduced student-led conferences in place of a typical parents' evening. With no models from other primary schools to go by, they did a lot of role playing with the teachers, problem-solving different scenarios. In order to learn from their first experience, they surveyed the parents afterwards, and videoed some of the conferences.

Find out more

Certificate of Innovative Educational Leadership – www.viu.ca/universityrelations/programguides/docs/CIELProgram_LORES.pdf
Networks of Innovation and Inquiry – www.noii.ca
Cycles of Inquiry – www.inquirycycle.appspot.com
Pt Chevalier – www.ptchev.school.nz

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1 www.oecd.org/edu/ceri/innovativelearningenvironments
2 The core questions of a Cycle, like those in the Spiral approach, are deceptively simple. However the micro-processes of building relationship trust and engaging teachers' theories of learning are vitally important, and a wealth of knowledge and advice has been developed to support leaders and their schools in these processes. Student-Centered Leadership (Robinson, 2011).