BUILDING FUTURE FIT ORGANISATIONS

Construction sector
performance measurement
Learning lessons and finding opportunities

CASE STUDY
New Zealand education sector

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Contents

Project background

This case study is part of a BRANZ-funded project which aims to inform the development of a performance measurement framework for the New Zealand construction sector. In this research we analyse a number of international and cross-sectoral performance measurement systems. In each case study we seek to understand why performance is measured, how and what is measured, how the system is implemented, and how effective the system is at monitoring and driving performance improvement in the sector. We have synthesised lessons from across the case studies to develop guidance for the New Zealand construction sector on how to curate and implement an effective construction sector performance management system.

This is one of the case studies that contributes to this project.

The full report is available at https://www.branz.co.nz/pubs/research-reports/er55/.

Case study: Education sector

1. Education system overview

In the New Zealand education system performance is measured at student, teacher, school and sector level.

- **Sector level**: entities that manage and evaluate performance of schools in New Zealand at a sector level include:
  - *Ministry of Education (MoE):* government's core agency for education. MoE implement New Zealand's education strategy, policies, national guidelines, legislation and regulatory controls, and have the key role of monitoring sector capability and viability. MoE monitor and intervene in providers that are underperforming either financially, or through student achievement and participation
  - *Educational Review Office (ERO):* established to promote equity and drive improvements in the education system through institutional reviews and national research and evaluation programmes. ERO works with MoE to support schools to lift their performance via diagnostic assessments (Educational Review Office, 2019)
  - *Teaching Council (previously the Education Council***)**: professional body for the New Zealand teaching profession. They set the expectations of teacher practice and behaviour through codes and standards, monitoring of Initial Teacher Education (ITE) programmes and teacher appraisals. The Teaching Council is an independent statutory body whose board is half filled with MoE appointed members.
- **School level:** groups that evaluate and manage performance at an organisation (school) level include:
  - *Board of Trustees:* entrusted to work on behalf of all stakeholders and is accountable for a school's performance. The board sets the vision for the school and ensures that it complies with legal and regulatory requirements. Trustees are volunteers and are elected by the parent community, staff members and in some cases students. They hire the school's principal, who becomes a member of the board
  - *Principal (and Senior Management):* expected to improve the quality of teaching and learning in their schools. Must implement and adhere to all legislation, policies, and guidelines set out by MoE and Board of Trustees.
- **Other key stakeholders**:
  - *Parents:* choose what school would be best for their child based on information available and elect the board members for the school's Board of Trustees
  - *Teachers***:** members of the Teaching Council and must meet the accreditation and standards set by them
  - *Students:* enrolled in state and state-integrated schools and are taught the New Zealand Curriculum. Key outcomes for students at the end of their schooling career is a National Certificate of Educational Achievement (NCEA).

2. Measurement systems and implementation

Sector level

MoE's priorities in measuring education system performance are centred around the performance of schools and students. MOE measures education providers to ensure capability and viability, with a focus on financial viability, student achievement and participation. Specifically, MOE monitors student outcomes through academic achievement measures (results in writing, reading, mathematics based on the national curriculum and NCEA results), absenteeism rates, and financial audits of schools. These lagging, quantitative measures are collected on a regular basis by schools and reported to the MoE multiple times a year (e.g. attendance is collected daily and reported to the ministry three times a year) in compliance with the Education Act (Ministry of Education 2020). These measures are nationally aggregated by the Ministry to produce an overall picture of the sector with performance benchmarked against international data (e.g. absenteeism rates in the UK), national measures (e.g. ERO, NCEA and educational assessments), and between similar regions (e.g. attendance compared between Canterbury and Auckland).

ERO works with MoE to measure and manage performance at school level. ERO's external evaluation approach is designed to build each school's internal evaluation capability to contribute to a cycle of ongoing improvement (Educational Review Office, 2019). ERO's main aims are 1) to ensure stakeholders have confidence in the education system, and 2) to lift performance (Educational Review Office, 2019). Under the Education Act 1989 ERO is required to externally review the performance of education providers. ERO run an audit process to evaluate school performance. Performance is assessed using both lagging and leading indicators; the lagging outcome indicators (such as student grades) are used to view how well schools are performing, while leading process indicators (such as communication and collaboration) are used to diagnose why the school is performing the way it is. These indicators are developed according to the criteria shown in Table 1. ERO is also responsible for national evaluations that provide an insight into system level issues based off their education evaluations of schools.

Table 1: Education review office outcome and process indicators (ERO, 2020)

	Criteria	Example Indicators
Outcome Indicators	Drawn from the *New Zealand Curriculum and Te Maratanga o Aotearoa* and are used to assess the impact of school policies and actions.	• Grades and intellectual outcomes • Socially and emotionally competent and resilient
	Indicators of student achievement and progress as a direct measure of what it is that schools are expected to achieve.	
	Those related to student's confidence in their identity, language and culture and to wellbeing, participation and contribution are important in their own right, as well as being essential for achievement and progress	
Process Indicators	Indicators that describe practices and processes that contribute to school effectiveness and improvement.	• Leadership • Communication • Collaboration • Human resource management • Professional learning • Organisational structures • Collective capacity
	Organised in six key domains that work together to promote equity and excellence in student outcomes. • Stewardship • Leadership for equity and excellence • Educationally powerful connections and relationships • Responsive curriculum, effective teaching and opportunity to learn • Professional capability and collective capacity • Evaluation, inquiry and knowledge building for improvement and innovation	
	They assist schools to identify areas in which changes are needed	

The ERO auditing process is undertaken within schools every 3-4 years and aims to be a collaborative approach between ERO, the board of trustees, and the principal and leadership team of the school. This process is undertaken in stages:

1. Before undertaking any auditing processes within the school, ERO reviews the learner outcomes and conditions that contribute to learner success within the audited school, including school data on learner wellbeing, progress, and engagement, use of various forms of assessment, school systems, process and practices. These are based on the school's internal evaluation and helps to develop an external evaluation process that is appropriate for the school. Schools are required to send 1) strategic and annual plans and reports, 2) current plans for staff professional learning and development, 3) recent reports to the board about students' progress and achievement, and 4) high-level analysis of outcomes and school improvement over the years prior to the evaluation.

2. After completing a review of the schools' internal evaluations, ERO sends a team of reviewers to the school for a period of one to four days to discuss lines of inquiry and findings that emerge from the document. Reviewers arrange meetings/observations with staff, students, the board and parents to get to know the school community and form and test assumptions and judgments. The data collected during this process is a rich source of quantitative and qualitative data; achievement data is also supplemented with data from student surveys, focus groups and classroom observations, along with student insights and perspectives on priorities for action. The use of both quantitative and qualitative data ensures there is a balance of perspective toward student achievements.

3. After the external review of the school is complete, collaborative discussions with the principal and senior management help to develop a shared understanding. Judgements made by the end of the visit are discussed with the board and principal, highlighting the likely points that will be covered in ERO's report and what areas need further improvement and action. ERO reports are designed to help the school develop their focus and priorities. The school's leadership team and board of trustees are invited to comment on the draft report before it is released publicly.

4. These reports are used by parents, teachers, school principals and trustees and government policy makers. Any critical structural issues within the education system found during ERO's valuation of schools is communicated to the Minister of Education, who can make changes to the curriculum if necessary.

The Teaching Council also provides a national performance framework within the sector. The Teaching Council implement a mandatory appraisal process for all teachers to assure accountability and drive professional development. In order to be issued with or to renew a current practising certificate, teachers need to be appraised annually using the Standards for the Teaching Profession. Standards are mainly focused on process: that is how teachers practice rather than student outcomes. This process is implemented at the school level with schools free to design their own appraisal process and establish what works for them. It must cumulate in an endorsement made by a professional leader within the school (who is familiar with the day to day work of the teacher and has observed them at least once annually) to the Teaching Council to say the teacher has met the Teaching Standards. Although the Teaching Council solely relies on the professional judgement of the appraiser and leader making the endorsement, an annual summary report is developed during the appraisal process. The report includes the outcomes of a discussion between the appraiser and appraisee on how the teacher's participation in the appraisal system has supported their understanding of the relationship between their teaching practice, the outcomes of learners and Teaching Standards. It must also include a discussion on the agreed focus of the teacher's on-

going learning. The Teaching Council has developed schematics to advise schools on how to undertake the appraisal and reporting process (Appendix 1).

Although not used directly by the Teaching Council, the annual summary report is used by ERO as part of a contracted agreement with the Teaching Council to do an independent audit of teacher appraisals in the education sector. The audit provides a sector wide picture of the quality of appraisal systems and plays an important part in developing an understanding of how well the teaching profession is doing (Education Council, 2018). It also provides the public with additional, independent assurance that appraisals for the issue and renewal of practising certificates reach a consistently reasonable standard. ERO and the Teaching Council developed a set of indicators for this audit process that described the features of a 'reasonable and consistent' standard of appraisal (Appendix 2). The audit assesses the appraisal process for at least 10% of the practising certificates issued or renewed each year (some 4000 individual audits).

School level

The Board of Trustees is required to measure school performance against MoE guidelines and regulations (MoE requires boards to mandatorily report on percentages of learning achievements and finances). Boards also, to varying degrees, measure their performance against their own annual and strategic plans.

Key themes of schools annual and strategic plans include:

- Student progress and achievement over time (Ministry requirements in mathematics, writing and reading)
- Human resources
- Learning environment (curriculum and teaching)
- Finances (budget and assets)
- Health and safety.

Board of Trustees aren't limited to these themes, with opportunities for the board to develop their own strategies and themes for measuring performance. There are a range of approaches and maturity towards measurement by boards of trustees. Some additional themes measured by schools include student engagement, professional development, student wellbeing, community connections and knowledge of school community.

These indicators are a mix of quantitative (finances and student achievement) and qualitative (wellbeing, learning environment and community) measures and are measured on various temporal scales with associated board discussions. For example, measures like student achievement are quantitative and assessed every term to see who is below or above achievement standards. Discussions by the board are then undertaken to determine what plans are in place for over and under achievers and what teachers believe students are capable to achieve to manage expectations and set clear goals for that indicator. While measures such as student achievement, finances, and health and safety are well measured and easily quantified, some of the measures are collected informally and are anecdotal (e.g. interactions between teachers and parents and the number of complaints that do or don't make it to the board). Surveys are a used for measuring wellbeing, collecting feedback from parents and determining levels of engagement of the school community. There is also a movement from some boards to change how performance measures are reported by teachers and leadership teams, moving away from gut feeling to evidence-based measures that explain what has happened and why.

School performance is regularly discussed between the board and school leadership team during board meetings, with assessments of strategic plans undertaken every three years (after board member re-elections) to ensure the direction of the school, and their performance measures, are aligned with this.

During this process the school leadership team is engaged on the goals set out in the plan and how they might go about achieving them. Feedback on performance relative to rest of the sector is provided during the ERO auditing process (see above).

The Board also has the responsibility for the performance management of the principal and teachers. This is operationalised through annual performance agreements with the board, with appraisals undertaken annually (New Zealand School Trustees Association, 2020). For principals, performance agreements are developed in consultation with the board and are required to include:

- Performance and learning objectives that are aligned with the boards strategic and annual plans and linked to the framework of Standards for the Teaching Profession, principal professional standards and career structure criteria
- Summary of outcome as to whether the above objectives, criteria and standards have been met.

Principals and leadership teams are delegated the responsibility for undertaking performance management of teachers, both for the Board and the Teachers Council appraisals (see above). The Ministry of Education outlines how boards of trustees can implement teacher appraisals, with the following key performance areas outlined as (Ministry of Education, 1996):

Table 2: Key performance areas outlined by the Ministry of Education for board of trustees implementing teacher appraisals

KPAs	Examples
Teaching responsibilities	- Planning and preparation - Teaching techniques - Classroom management - Classroom environment - Curriculum knowledge - Student assessment
School-wide responsibilities	- Contribution to curriculum leadership - School-wide planning - School goals - Effective operation of the school - Pastoral activities - Student counselling - Community relationships
Management responsibilities	- Planning - Decision-making - Reporting - Professional leadership - Resource management

A new measurement system using AskYourTeam has recently been trialled in schools with the support of ERO, enabling schools to get feedback on performance from the school community (parents, students, and teachers). This system was implemented after ERO's ongoing work with schools suggested that there was a weakness in the system, specifically school's ability to carry out effective internal self-review. Previously ERO had offered workshops to help schools better understand the process of internal evaluation/review, and shared ERO's Indicator Framework as a basis for schools to self-assess their own performance (Table 1). In 2019, ERO partnered with AskYourTeam to develop a new online survey tool and approach to better support internal self-review. The survey tool is designed to seek the views of the school's leadership,

teachers, students and parents on the school's performance against ERO's indicators and other key factors critical to effective school performance.

Operationalised by the school, this tool enables schools to self-identify where they are performing well, and where there might be weaknesses or "blind spots" between principal/leadership team, staff, students, and parent community. Results on the survey can be followed up through the AskYourTeam auto-reporting system and can be used in stakeholder engagement activities to make better decisions on how to improve performance. Feedback from surveys is often shared with respondents and the greater school community as part of this engagement process. There are currently no requirements for results to be communicated to MoE or ERO.

3. Effectiveness/feedback

Several key themes were identified when evaluating the effectiveness of the current education performance measurement framework.

Process indicators support behaviour change

In many areas of education performance measurement, there is a movement away from outcome indicators towards process indicators, particularly in the interface of sector and school level performance measurement frameworks. ERO's audits of schools, although they include outcome measures, are heavily focussed on measuring practice not performance (what teachers are doing rather than student outcomes). ERO's audit utilises both qualitative and quantitative data to make the link between outcomes and practice. This produces a clearer picture for schools on where they need to make improvements.

Outcome measures are useful for benchmarking and managing diversity

MoE core sector performance measures are high level, lagging outcome measures (absenteeism, student outcomes, financial performance). Generally, these measures are used to monitor trends / change over time allowing for issues to be identified and for performance to be benchmarked with other countries and across schools/regions. Where negative trends are identified, this then gives freedom to schools or regions to look into cause and effect specific to their situation. The risk being if you over prescribe, at a national level, indicators that are meant to demonstrate cause and effect, you may miss factors that are specific to a given region / community and create outcomes than are inequitable.

Simple consistent measures over time

In order for schools to measure performance and track progress over time the measures need to stay the same and the number of measures kept to a manageable level. Effective system measurement can occur with a small number of effective KPIs linked to core principles, where measures can be designed for stakeholders. Key feedback from the school level is that changes to education/teaching standards are made on a regular basis (every 2-3 years approximately). During this period schools are required to implement new standards without any training or guidance. Schools would rather have something simple that they can stick with that allows them to measure and improve their performance than to have to constantly keep up with the changes. Interviewees, however, also highlighted the importance of agility within measurement systems, being prepared to evolve or incorporate new measures over time to better fit the needs of the system.

Good leadership

Leadership, a balanced board, and a concise clear purpose make a key difference in how effective the performance measurement system is at the school level. Having a good leader in the school helps empower staff and aids in a collaborative effective approach to the vision and values set out by the board of trustees. Having an effective and balanced board is also of key importance. Boards are comprised of volunteers from the community and are not trained or funded for their roles as a board member. Their variable experience and perspectives limits their ability to develop strategic, holistic goals, and associated measurement framework, that will drive performance in the school. Effective performance measurement systems require leaders to drive implementation and respond to results.

Communication between stakeholders is important for driving behaviour changes

Stakeholders at various levels in the education system highlighted that conversations and discussions between stakeholders are currently providing more benefits to performance improvement than the result of measures alone. Feedback is an important component of the ERO process where conversations between reviewers and school stakeholders aid in highlighting and discussing areas in need of improvement. This is reportedly more effective for schools than the final report itself, at driving effective behaviour changes. Intended as a collaborative approach, the ERO process includes continuous discussions between reviewers, the board of trustees and the school leadership team allowing information to flow between all stakeholders. However, this process is generally limited to the school management team and does not tend to extend to teachers, students and the school community. This is also evident within the teacher appraisal process, where conversations between the reviewer and the teacher are used as a basis of the assessment of how the reviewees teaching and learnings use the Teaching Standards as a reference for quality practice that supports all learners instead of a check box exercise.

Lack of involvement when the process becomes too compliance-focussed

Check-box compliance-based exercises are found to hinder participation of stakeholders in performance improvement. The Teachers Council has recently highlighted that their appraisal system needs to be updated because some parts are too compliance focussed. Although benefits have been seen for teachers and learners through the appraisal system, they have found that the whole system is not adding the value expected. The new system being developed aims to move away from a compliance-focus towards building a high-trust culture that assures high quality practice. Although there will still be an accountability element that ensures all teachers meet Teacher Standards, the main focus will be on the teachers' professional learning journeys. That is where conversations, as mentioned above, play a key role in increasing the quality of teaching practice.

Similarly, the ERO process can be quite burdensome and can create a stressful time for schools while they prepare. The system is currently perceived as a hinderance rather than an opportunity to learn and grow and drive positive behaviour; a comment from a board member stated that "it is viewed as a perfection test". As a result, performance seems to only improve in poorer performing schools (the 5% under the line). While others just aim to meet the minimum standard.

Gaming can occur when there seems to be a negative consequence for poor performance

Related to the above, the performance measurement systems can be undermined by the threat of negative consequences for poor performance. If schools are shown to perform poorly in the ERO review process, they will have to undergo more frequent reviews and the report will be public and may affect enrolment numbers at the school. This has created alleged instances where schools are 'gaming the system'; 'putting

on a show' when ERO is around to avoid potential negative consequences. While the intent is there, this process has not become a true partnership between ERO and school yet; where trust can be built to openly discuss weaknesses or provide constructive feedback. Transparency in measurement is key. ERO is exploring how to improve this relationship by bringing principals on board with the process.

Culture of learning and continual improvement is key

A culture of feedback and learning is important to make the most out of performance measurement systems. Behaviour change is enabled where there is a culture of 'measurement for improvement' rather than for assessment. One of the key findings, and a main reason for the development of the AskYourTeam trial, is the lack of internal evaluation happening within schools. This impacts the ability of ERO to complete a thorough external review and participate in meaningful discussions to aid in the improvement of performance within a school. Being able to objectively measure a school externally is hard especially if schools have not been effectively assessing themselves internally and identifying how they are performing within their own context. Since the implementation of the AskYourTeam pilot there has been continued positive feedback, with 21 schools trialling the approach. It has been used to engage with end users such as non-senior staff members, teachers, students and parents' whose opinions are not often picked up in other measurement systems. This system allows schools to get quick results and tailor questions to suit the school's needs. If this system became a part of the official ERO review process, there is a fear that schools would not take part in it or try and game the system through it (see gaming section above). Instead this system is currently intended to enable schools to review themselves and use the results to discuss performance with their boards and ERO.

4. Key themes

Key themes from the Education System include:

- There is a key focus on process rather than outcome indicators
  - o Practice measures rather than outcome are prioritised
  - o Process indicators are used to understand outcomes
  - o If outcome is being measured, then measures are tracked over time.

- Communication between stakeholders is important for driving behaviour changes
  - o Conversations and discussions between stakeholders are more beneficial than the final outcome report (ERO performance assessment)
  - o Teaching Council appraisals are based off discussions between a teacher's leadership team and the teacher rather than outside reviewers which encourages genuine growth.

- Gaming occurs when there seems to be a negative consequence for poor performance
  - o True value of the system is undermined when stakeholders are concerned about how results might be used
  - o Measures that are visible to the public/communicated to the Ministry have the potential to be 'gamed' to avoid negative consequences (ERO).

- Culture of learning and continual improvement is key

- A culture of feedback and learning is important to make the most of performance measurement systems

- Behaviour change is enabled where there is a culture of 'measurement for improvement' rather than for assessment (AskYourTeam trial).

5. References

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Appendix 1: Appraisal components
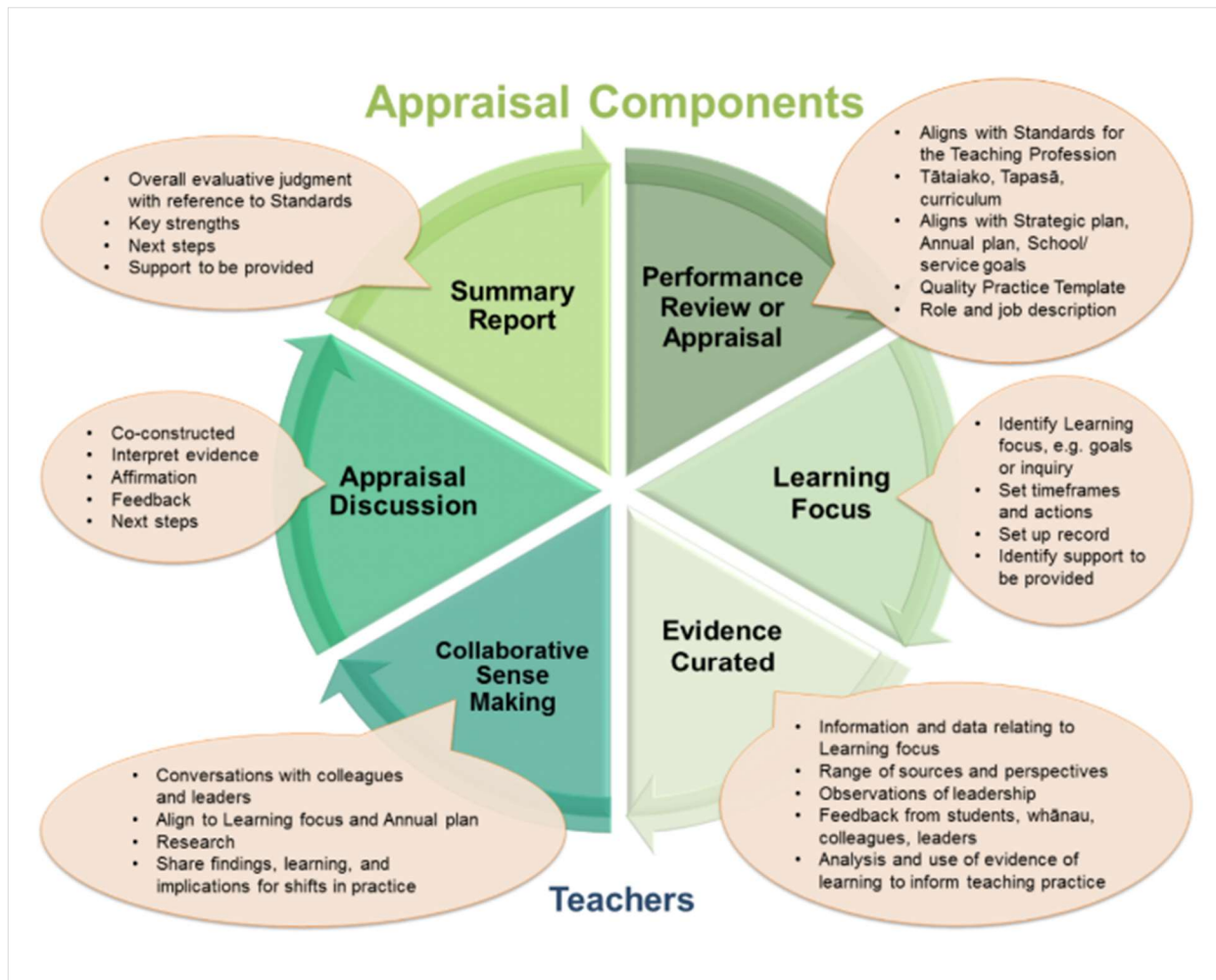
Appendix 2: Council-set indicators

1. Individual teacher level
Are the endorsements in the sample audited (those endorsed in the previous 12 months) based on "meaningful" appraisal?
[Appraisal evidence linked to PTCs/Standards] Personalised appraisal process Targeted observation of teaching and links between teaching practices and student/ ākonga learning Appraisal includes reflection about practice and outcomes for learners Teaching as Inquiry Range of robust information used, including perspectives of students/ākonga and parents High quality feedback about teaching practice and next steps provided Appraisal goals linked to ākonga learning/outcomes/wellbeing and the school's/service's strategic goals Appraisal goals are specific and can be verified by objective measures or indicators Appraisal identifies support and PLD needed Opportunities for data-based discussion between teachers and leaders about student/ ākonga learning and its relationship to teaching Endorsement of leaders' performance based on appropriate appraisal using PTCs/Standards
2. System level
Do the appraisals by professional leaders in this school or early childhood service for all categories of certification achieve a "reasonable and consistent" standard overall?
Senior leader responsible for both completion and quality of appraisals Senior leader who makes final endorsement decision is assured of the quality and breadth of appraisal process and evidence Processes are well documented to support the teacher's application for the practicing certificate Clear comprehensive procedures guide appraisal practice, including using the PTCs/Standards. These might include, for example, developing worthwhile and specific goals, indicators, robust evidence including achievement information, classroom observations, self-appraisal and the final repot Effective processes are used for induction and mentoring of teachers to be recommended for the issue of a full practicing certificate and for those working towards full certification Templates and observation schedules provide guidance about goals, process, evidence, observation of teaching Time is allocated for goal setting, appraisal observations and discussions PLD on effective appraisal processes and evidence, using PTC, providing construction feedback, and coaching, promoting consistent understanding of expectations for teaching Board is assured about teacher status – certification/endorsement and completion of appraisal Endorsement and appraisal procedures and practices reviewed and improved regularly.