

Sabbatical Report

How teachers and leaders efficiently and effectively use data to support decisions that lead to improved student achievement.

The interdependency of effective data practices at classroom, school and national level.

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“The final conclusion is that we know very little, and yet it is astounding that we know so much, and still more astounding that so little knowledge can give us so much power.”
Bertrand Russell

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Rationale and Background Information

In the seven years since I began my principalship at Henderson Valley School there has been a continual increase in the need to collect, analyse and use data. This increased importance placed on the use of assessment data began with the introduction of the teacher as inquiry model in the New Zealand Curriculum in 2007. In 2008, our school commenced a two year AToL contract and we continue to sustain and strengthen our assessment for learning practises. The introduction of the National Standards in 2010 and the need for teachers to bring together a range of evidence in order to form an overall teacher judgment, has added to plethora of data collection for classroom teachers.

As a principal, I have a key role in establishing the purpose and expectations for the effective use of data in my school in order to improve student achievement. The purpose of my sabbatical was to further research the effective use of data in schools and to explore how data can support effective leadership.

The two key areas I planned to focus on during my sabbatical were:

- how teachers and leaders efficiently and effectively use data to support decisions that lead to improved student achievement
- the interdependency of effective data practices at classroom, school and national level.

“As education systems around the world have continued to evolve toward increasing accountability for student achievement, it is not surprising that more data are available than ever before..... The intelligent use of data affects the work of all professionals involved in education.”

Ontario Leadership Strategy Bulletin #5

My interest in the use of data began when I read the bulletin ‘Using Data: Transforming Potential into Practice’ on the New Zealand Educational Leaders website. The bulletin is part of a series of articles, ‘Ideas Into Action’, which have been produced to support school and district leaders in Ontario, Canada. The series is designed to provide links between research, policy and effective practice and are aligned with the Ontario Ministry of Education’s Leadership Strategy.

While scoping this study I also discovered that assessment, evaluation and reporting in schools throughout Ontario is governed by the Ontario Ministry of Education’s very comprehensive document, ‘Growing Success’. Additionally, it is legislated that all students in publically funded schools participate in provincial large scale assessments at key points in their education. In Ontario these province-wide tests are administered and reported by the Education Quality and Accountability Office (EQAO).

“The objective and reliable assessment results are evidence that adds to the current knowledge about student learning and serves as an important tool for improvement at the individual, school, school board and provincial levels. EQAO helps build capacity for the appropriate use of data by providing resources that educators, parents, policy –makers and others in the education community can use to improve learning and teaching”. www.eqao.com

I thought it would be interesting to compare the use of data to improve student achievement in New Zealand classrooms with practice in Ontario schools and to also explore how assessment data is used and reported at district and provincial level to improve teaching and learning.

Visiting Toronto, Ontario

I visited Toronto and met with principals at the beginning of the summer holiday break. Principals in the Upper Grand District School Board are instructed by their Board to work the first week of the holiday break to complete end of year tasks. Like New Zealand schools, the end of the year is a particularly busy time and principals make good use of a week at school withouth interruptions.

I also visited the University of Toronto Schools (UTS) in the central city. UTS is a private university preparatory school from Grade 7-12 that is affiliated with the University of Toronto and located on campus. It offers “high achieving students a specialised curriculum an a unique co-educational learning environment that encourages creative interests and physical activity as well as a sense of social responsibility”. Unlike public schools, UTS has its own Board of Directors that are elected by parents and alumni for a 3 year term of governance.

While the focus of my meetings with principals was the use of data to inform decisions, conversations quickly extended to discussions about general school structures and systems. To follow is a summary of some of the

similarities and differences between schooling in New Zealand and Ontario that I found most interesting.

Similarities	Differences
<ul style="list-style-type: none"> • multi-cultural, diverse communities • some schools struggle with high levels of transience • school leaders and teachers concerned about heavy workload • school leaders develop evidence-based school improvement plans and identify SMART goals /targets for improving student achievement • teachers encouraged to evaluate and reflect on targets for their grade level • assessment for learning practices • increasing numbers of students on the autistic spectrum • concerns that the education system continues to fail 'First Nation' students 	<ul style="list-style-type: none"> • kindergarten is included in the elementary school • Principal has small operating budget. Extra funding for special needs, building development etc has to be referred to the board superintendent. • Vice Principal can be moved without consultation to another school by the district board. • New Vice Principal is selected by the board – Principal has no input into decision. • Principals can also not appoint their own office administrator. • Concerns re. special needs students referred to superintendent who can authorize the provision of extra teachers and support staff • Principals speak to their superintendent when interested in moving schools. Superintendent then selects new school for Principal. • Teacher unions have a big influence on schools – teachers had been on a work to rule protest for over a year refusing to participate in activities after 3pm including professional learning and extra curricula programmes. • Admission to university is determined by grades • There is no external assessment in Year 11 and 12 and no moderation of assessment across schools. This means that admission to university is based on individual teacher assessment.

From these discussions it became evident that New Zealand Principals operate with a greater level of autonomy than our colleagues in Ontario. These school visits and conversations heightened my interest in the structure of the education system in Ontario and how data is used and reported at each level.

So Who Does What?

In Canada, public education is a provincial responsibility. To follow is an outline of the structure of Ontario's public education system.

Ontario Ministry of Education – responsible for overseeing all aspects of Ontario's public education system

Education Quality and Accountability Office (EQAO) – independent government body that oversees the province-wide standardized testing in Grades 3, 6 and 9 and 10. EQAO is responsible for:

- developing and administering tests in reading, writing and mathematics to evaluate student achievement
- reporting test results to the Minister and to the public
- providing results at school, board and provincial level
- providing recommendations to improve test results

School Boards – there are 72 school boards in Ontario. Trustees are elected to the school board during municipal elections. The Upper Grand District School Board area that I visited has 60 elementary schools and 11 secondary schools. The board has 10 elected trustees and 2 student trustees. School Boards are responsible for:

- determining the number, size and location of schools
- building, equipping and furnishing schools
- providing educational programmes that meet the needs of the school community
- management of funds allocated by the province
- supervising the operation of schools and their teaching programmes
- establishing a school council in each school
- hiring teachers and other staff
- teacher performance
- improving teacher practices
- approving schools' textbook and learning materials choices

Parent Involvement Committee – all school boards have to establish a PIC. The Parent Involvement Committee operates at board level and is a direct link

for parents to the director of education and the board of trustees. Parents can apply to represent their region. They are responsible for:

- providing the board with advice on parent engagement and how to communicate with parents
- developing strategies and initiatives to engage more parents to support their child's learning
- sharing information with, and supporting the work of school councils

School Superintendents (supervisory officers) – board staff responsible for a groups of schools within each school board. They put in place supportive system practices and procedures for school leaders. Sometimes superintendents are assigned by the board to oversee board-wide programmes such as special education.

Principals - responsible for the management of individual schools. May have one or more vice-principals assigned to help them. Principals are responsible for:

- setting direction
- building relationships and developing people
- developing the organisation
- leading the instructional programme
- securing accountability

Teachers – responsible for:

- Planning, teaching and evaluating student progress
- Maintaining discipline in the classroom
- Running extra curricular sports and activities (voluntary)
- Communicating with parents about students progress

School Councils – provide advice to the principal and school board. Members include parents, the principal, a teacher, a student (in high school), a non-teaching staff member and a community representative. The majority of members must be a parent and the chair must be a parent. School councils are responsible for:

- Sharing information with parents and the community and seeking their input
- Providing advice to the principal and school board on issues such as school year calendars, strategies to improve school performance, codes of conduct and board policies that will affect the school

Data at Classroom, School, District and Provincial Level

Data in the classroom

Growing Success is Ontario's assessment, evaluation and reporting policy, which was introduced in 2010. It impacts all practices and procedures in Grades 1-12.

The policy is underpinned by assessment for learning practices as used throughout New Zealand.

Assessment for Learning

- ⇒ Use of learning goals, success criteria, relevance, descriptive feedback
- ⇒ Instruction adapted to meet students' needs and check for understanding

Assessment as Learning

- ⇒ Learning how to learn
- ⇒ Personal goal setting, self regulation

Assessment of learning

- ⇒ Evaluation used to determine students' grades and report to parents.

Overall Ontario Curriculum Expectations

- ⇒ Students are measured against the content standards in the curriculum and against the performance standards in the provincial achievement chart. There are 4 broad categories of learning: Knowledge and Understanding, Thinking, Application, Communication. There are 4 levels of achievement: exceeding the standard, at the standard, approaching the standard, below the standard.

Provincial Report Cards

- ⇒ All students in Ontario receive a standard report based on the curriculum. Evaluation is based on the Ontario Curriculum expectations. In Grades 1-6 achievement is reported by letter grades and anecdotal comments. In Grades 7-8 percentages and anecdotal comments are used. Teachers determine grades using test and assignment results as well as student observations and conversations.

Data and School Leadership

- ⇒ Development of school improvement plans
- ⇒ Provision of planned opportunities and time for working with data
- ⇒ Implementation of formal and informal structures to support data use
- ⇒ Engagement of staff in collaborative decision making
- ⇒ Facilitation of conversations on instructional improvement
- ⇒ Explicit connection between data use and instruction
- ⇒ Development of action plans – steps to be taken, monitoring and evaluation, timeline, resources, persons involved, person responsible
- ⇒ Use of the “4C’s of Interpreting Data”
 - ✓ Complete
 - ✓ Consistent
 - ✓ Comparative
 - ✓ Concealing

- ⇒ Sources of data used
 - Classroom assessment
 - Report cards
 - Standardised tests
 - Board-wide assessments
 - Surveys
 - Focus groups
 - Demographic data
 - Informal group discussions
 - Anecdotal comments
 - Operational/statistical reports
 - Administrative records
 - Attendance records
 - Journals
 - Portfolios
 - EQAO

Data at District and Ministry Level

Louis et al (2010) reported that *“leaders in higher-performing districts communicated explicit expectations for principal leadership and provided learning experiences in line with these expectations; they also monitored principal follow-through and intervened with further support where needed.”*

“A positive link between district data use initiatives and student achievement occurs only when.....principals believe that they have the capacities for meeting district improvement goals.”

Student Success Strategy

- ⇒ The ministry distributes data packages to boards that provide information at a school board and provincial level on pass rates, credit accumulation and mark distribution.
- ⇒ Boards track these assessments to identify what programme initiative interventions, enhancements or expansions are required in their district
- ⇒ Boards use the data packages as part of a needs assessment to differentiate resources for schools in their area and to monitor the effectiveness of their intervention strategies.

MISA (Managing Information for Student Achievement)

Designed to increase the capacity of the Ministry to collect and work with data to inform policy, programmes, and funding decisions and to help support local capacity.

- ⇒ OnSIS Ontario School Information System - collects board, school student, course and class data.
- ⇒ ESDW Elementary/Secondary Data Warehouse – data gathered is stored, integrated and depersonalized

EQAO (Education Quality and Accountability Office)

At elementary school level the EQAO provides assessment information about how well students are achieving key reading, writing and mathematics curriculum expectations by the end of Grade 3 and Grade 6.

- ⇒ Provides resources for classroom teachers to make links between EQAO assessments and classroom assessment
- ⇒ Provides guides for school administrators to interpret their data
- ⇒ Provides results for individual students, board and school results and a provincial report

We have the data, so what shall we do?

The process of collecting and analysing data at any level results in decisions needing to be made about the allocation of resources to achieve goals that have been set. A leadership challenge is how to use our limited resources as effectively as possible.

The Ontario Leadership Strategy Bulletin # 6 addresses the issue of “aligning resource with priorities: focusing on what matters most”. This article highlights that effective resource alignment must be:

- ⇒ Leadership driven
- ⇒ Strategic and supports efficiency of operations
- ⇒ Integrated (combination of funding, staffing, time, physical resources, parent and community involvement, tracking over time how resource allocation affects student performance)
- ⇒ Purposeful

Bryk et al (2010) identified the following features of schools that are essential to improving student achievement and engagement

1. A coherent instructional guidance system
2. Professional capacity
3. Strong ties between parent, community and school
4. A student-centred learning climate
5. Leadership that drives change

“Deciding what not to do is as important as deciding what to do.”
Steve Jobs – cited in Isaacson 2012

Conclusion

Unsurprisingly, there was not one simple answer to my question, “how do teachers and leaders efficiently and effectively use data to support decisions that lead to improved student achievement?” While the system structures in Ontario and New Zealand differ, the essence of teaching, learning and assessment remains the same. However, at this point in time, there does appear to be a more strategic approach in Ontario to the use of student achievement data at district and provincial level. The ministry provides school boards with data packages to assist them to differentiate resource allocation to schools in their district. This data is a combination of both school assessments and EQAO results. The ministry also collects and works with data to inform its own policy, programmes, and funding decisions.

In New Zealand, the Ministry of Education are working towards releasing National Standards data in a new standardised format allowing comparisons between schools. This, and the advent of the 'Education Counts' website as a 'one stop shop' for educational statistics, signals a more strategic approach to the use of data at a national level. However, in my opinion, there still remains too much variation in National Standard data between schools for this to yet be a valid and reliable source of information on which to base policy and programming decisions.

References

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Understanding levels of achievement

Ontario Principals' Council: <https://www.principals.ca>

Peel District School Board: www.peelschools.org

People for Education: www.peopleforeducation.ca

University of Toronto Schools: <http://www.utschools.ca>

Upper Grand District School Board: <http://www.ugdsb.on.ca>