

Sabbatical report - “Aspects of Principal-Ship in the 21st Century”

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Abstract

It is recognised that traditional school organisation and practices does not serve the needs of many of our students. This sabbatical provided as an opportunity for the author to investigate how school systems could be changed so as to better support engagement and achievement for vocationally orientated students.

Specifically the following questions were investigated;

- What are the features of programmes of learning that best cater to the needs of vocationally orientated students?
- How can modern learning environments, practices and curricula be used most effectively to meet the educational needs of vocationally orientated students?
- How can Secondary School Principal’s best support their schools’ teaching staff to understand and use modern learning environments and practices effectively?
- How can a vocationally orientated curriculum best be scheduled (timetabled) by the school?

The findings are being used to inform the development of a new timetable, and associated school systems at the school where the author is Principal.

Some observations of schooling in Europe and the Arctic have been included.

1.0 Introduction

Historically New Zealand secondary schools have provided a general education for students until Year 11. As recently as the early 1980’s a majority of students then left school for employment. At that time national assessments were norm referenced and scaled. Consequently almost half of students would leave school without formal qualification. However, there were meaningful employment opportunities for many of these school leavers.

Relatively few students progressed to Form 6/ Year 12 and Form 7/ Year 13. School Year 12 and 13 programmes were designed around the needs of those students who were preparing for tertiary education, usually at university.

The situation is now quite different. Due to technological developments and increased globalisation of markets limited employment for unqualified school leavers is available in New Zealand. Most workers now need skills and qualifications formally needed by only a few. Consequently, a wider range of students are staying at school until Years 12 and 13.

In order to cater for this increased diversity of senior students, schools have broadened the range of courses they offer at Years 12 and 13. For the purposes of this project senior students who are not intending to study at University are referred to as vocationally orientated students. Generally, schools' vocationally orientated senior school pathways have been thoughtfully developed and have increasingly offered relevant, effective and coherent programmes for the students who take them. Of particular merit have been programmes that give students experience of real work-places, such as Gateway and the Trades Academies.

This change process is far from complete and many challenges and tensions remain for schools to resolve.

This project seeks to examine aspects of school and Principal practice that are needed to contribute to this evolving "21st Century education" environment.

Specifically, this sabbatical research aims to improve educational outcomes for vocationally orientated students by informing development of effective learning programmes and supporting school organisational structures to meet their needs.

This will be achieved by investigating the following research questions.

- What are the features of programmes of learning that best cater to the needs of vocationally orientated students?
- How can modern learning environments, practices and curricula be used most effectively to meet the educational needs of vocationally orientated students?
- How can Secondary School Principal's best support their schools' teaching staff to understand and use modern learning environments and practices effectively?
- How can a vocationally orientated curriculum best be scheduled (timetabled) by the school?

2.0 Investigations

2.1 Methodology

The findings of this report are informed by professional reading, conversations with educators and visits to New Zealand and overseas schools.

2.2 What are the features of programmes of learning that best cater to the needs of vocationally orientated students?

The New Zealand Curriculum states that while there is no formula that will guarantee learning for every student in every context there is extensive well documented evidence that students learn best when teachers;

- Create a supportive learning environment.
- Encourage reflect thought and action.
- Enhance the relevance of new learning.
- Make connections to prior learning and experience.
- Provide sufficient opportunities to learn.
- Inquire into the teaching and learning process.

From this author's investigations two powerful factors in engaging students and raising achievement are;

- Development of mutually respectful, achievement focussed relationships
- Use of teaching approaches that make the student an active partner in their own learning.

2.2.1 Mutually respectful, achievement focussed relationships.

Vocationally orientated students do best when taught by knowledgeable, well prepared teachers who are enthusiastic about their subject and who don't "sweat the small stuff". Teachers need to have high expectations of their students. An appreciation that these students have strengths is important. For instance, they can do well in off school placements even if they tend to be un-cooperative with the minute of school routines such as attendance at form class.

Schools that can foster a sense of partnership between teachers, parents and students will achieve the best outcomes for their students.

2.2.2 Use of teaching approaches that make the student an active partner in their own learning.

Engagement and achievement will be raised by teaching approaches that make the student a partner in the learning process, rather than leaving them feeling that education is being "done" to them. Such approaches will match instruction to the learner's needs, interests, understanding, and developmental level. Appropriate teaching approaches often include use of technology, hands-on and authentic activities.

2.3 How can Modern Learning Environments, Practices and Curriculum be used most effectively to meet the educational needs of vocationally orientated students?

The Modern Learning Environments (MLE) concept represents an attempt to future proof building projects.

The thinking about MLE came from the Ministry of Education's understanding that school buildings have a design life of 40 years, and that new buildings need to be able to cater for changing student needs and teaching pedagogy.

MLE can be considered to be flexible, technology rich spaces. They should encourage collaborative teaching and de-privatise teacher practice. Like all teaching spaces MLE need to be accessible, comfortable (with effective ventilation, heating, insulation, acoustics, and lighting) and visually appealing.

The purpose of providing MLE spaces is to increase engagement and achievement.

While completing this study I was fortunate to visit a number of schools equipped with MLE style buildings at various North Island schools.

The examples of MLE spaces that I saw, and which in my opinion were most suitable for use in secondary schools, provided large, technology equipped breakout spaces while allowing for conventional instruction and specialist instruction in smaller adjacent rooms. There were very good lines of sight between the rooms.

These visits included opportunities to talk with school managers, teachers and students about their experiences with these buildings. In general MLE was seen as positive, with no real downside.

Advantages included;

- Student engagement is increased. It was reported that it was hard for a student to avoid getting on with the work in a MLE.
- Fewer behavioural issues occur.
- Large MLE spaces are very useful. For instance they can double as house home rooms and wet weather spaces.

Pitfalls

- It is a mistake to make MLE spaces too small by trying to squeeze too many spaces into an allowed footprint. Fewer, bigger spaces work best.
- A number of buildings seen had water-tightness issues.
- Teachers don't necessarily have the disposition and skill base to use MLE spaces well. Instead they may simply try to teach conventional lessons their new spaces. An issue that emerged is that teachers who are enthusiastic about the new approach liked to work together rather than coach reluctant colleagues.
- Funding constraints – property and staffing. There is little 5YA funding left over for many schools to begin to address priority 3 (MLE) building needs. Many rural schools have declining rolls so they are forever trying to achieve more with less staff.
- Contractual inflexibility can make it challenging to re-organise staffing hierarchies and work schedules in new ways.

The dialogue amongst school leaders is that actually the important thing was not the buildings so much as the disposition and skill base of the teachers using the rooms.

So, what constitutes effective use of a MLE space?

The most innovative users of MLE spaces that this author observed used a multidisciplinary team, or syndicate, of teachers looking after a number of classes in a shared space. This syndicate set student learning outcomes weekly, often organised under a common theme. Generally the students worked in large spaces, individually and in groups. Specialist teachers withdrew groups of students from time to time for the teaching of specific knowledge and skills.

An issue that emerged is that the NZQA achievement standards remain the de facto curriculum in most secondary schools. This is because of the value placed on high stakes NCEA assessment by teachers, parents and employers. This is not ideal.

A school's curriculum should aim to give effect to the national curriculum in ways that best address the needs of the school's students and aspirations of the community. In order to maintain relevance curriculum review should be continuous and cyclic.

This author believes that accelerating moves towards providing on-line, on-demand assessment alternatives to existing NCEA assessment procedures will better fit the needs of our vocationally orientated students.

2.4 How can Secondary School Principals best support the pedagogical development of their schools' teaching staff?

The educational changes New Zealand is making have challenged teachers.

Common concerns include;

- The perception that the emphasis of supporting less academic students is detracting from the success of more academically capable students.
- The workload created by the expectation for increased differentiation of instruction.
- The workload associated with NCEA.
- The behavioural issues and other work avoidance strategies exhibited by some students are time consuming and distressing to manage.
- Engagement is not just about kids having fun. Some real learning needs to be taking place.
- High cost (in money and time) of accessing in-service training.

These concerns are not to be trivialised. The vast majority of teachers are motivated to be the best teachers they know how to be. So, how does a Principal get their staff “on board and up to speed”? The following steps and processes are important.

Firstly, a Principal needs to set a moral tone that “we do have a responsibility to every student”. Then, with consultation, appropriate student achievement goals and priorities can be set. Teachers should be supported with regular, relevant professional development.

The teacher inquiry process is an excellent model for encouraging innovation and experimentation.

An important tool in progressing teacher practice is meaningful teacher appraisal. The relevance and manageability of appraisal will be enhanced when the process takes its evidence from a teacher’s normal work.

2.4 How can a vocationally orientated curriculum best be scheduled (timetabled) by the school?

Much of what is possible in a school is determined by the timetable and other school systems. Therefore an important aspect of this sabbatical was for the author to have the time to determine what alternative arrangements could look like.

Conventional secondary school timetable often have these features;

- 5 x 1hour lessons each day
- A 5 to 10 day cycle
- 6 to 8 subject lines per cycle

Timetables have a number of constraints including;

- The need for secondary aged students to be supervised nearly all the time.
- Finite staffing resources that the school can afford to employ.
- The Secondary Teachers’ Collective Agreement allowable contractual hours.

It is recognised that such a conventional timetable is no-longer the best fit for our students. For instance such a timetable leaves a student who has a day on work placement with 4 other subjects’ work to be caught up. Additionally, students taking practically and vocationally orientated subjects benefit from doing fewer subjects for bigger blocks of time than schools have traditionally allowed.

Alternatives include;

Timetabling options	Pro's	Con's
Shorter lessons E.g. 8 x40min per day.	Can suit the needs of children with short attention spans and the needs of very content based subjects such as Mathematics.	Frenetic! Teachers must prepare many lessons each day. Much time is lost in transitions (movement of students and teachers between classes).
Longer lessons E.g. 3 x 100min per day.	More time allowed to students to complete tasks. E.g. a Science lesson could cover the relevant theory & complete a practical within the lesson.	Teachers report difficult in motivating junior classes for long periods.
Inclusion of a one period day	Students can attend work placements without having to catch up on their other subjects.	Scheduling all work placements on the one period day is problematical.
Year divided into 2 or more semesters.	Students and teachers need to deal with the workload of fewer subjects at any one time. Students and teachers have an opportunity to modify their programme for the second semester in response to semester 1 progress.	Preparation for NCEA external examinations will need to be largely scheduled for the second half year semester.

After considering the various timetabling options available this author favours increasing the length of lessons to allow longer focus on an inquiry and to reduce the number of different subjects a student has to catch up after spending a day on work placement. An option is offered here.

Proposed Timetable – A 3 lesson per day, 6 line, 10 day timetable

Purpose of this change

- To create longer lessons
- To reduce the number of lessons missed by a student away on trades academy/gateway
- To align the Year 9&10 and Year 11-13 timetables.
- To better manage teacher workload issues.

The option

- 3x90 minute periods each day
- 10 days per cycle
- 6 lines, each with 5x 90 minute lessons per cycle

Year 11-13 teaching time, per line, per year

- Present option at Hawera High School; 8 lessons/cycle x 1 hrs/cycle =8.0 hrs/10 day cycle.
- Proposed option; 5 lessons/cycle x 1.5 hrs/cycle =7.5 hrs/10 day cycle.

It is important to acknowledge Finnish experience that there is no correlation between per capita expenditure on education/ number of hours a teacher teaches and educational achievement. Rather it is about the efficiency with which that resource is used.

Year 9 and 10 classes could be scheduled on the same timetable. In order to accommodate more than six subjects the number of lessons per subject per cycle may be reduced.

A Year 11-13 student's timetable might then look like this (30x 90 minute periods). Lines have been arranged to balance am/pm lesson distribution for each subject.

Week 1	Monday	Tuesday	Wednesday	Thursday	Friday
Period 1 (90min)	Course A	Course D	Course B	Course E	Course C
Interval (20min)					
Period 2 (90min)	Course B	Course E	Course C	Course F	Course D
Activity (30min)	Assembly	Mentoring	Activities	Activities	Activities
Lunch (40min)					
Period 3 (90min)	Course C	Course F	Course D	Course A	Course E
Week 2	Monday	Tuesday	Wednesday	Thursday	Friday
Period 1 (90min)	Course F	Course D	Course A	Course E	Course B
Interval (20min)					
Period 2 (90min)	Course A	Course E	Course B	Course F	Course C
Activity (30min)	Assembly	Mentoring	Activities	Activities	Activities
Lunch (40min)					
Period 3 (90min)	Course B	Course F	Course C	Course A	Course D

The number of classes a teacher can be asked to teach under this arrangement.

	Teacher	1PMU	2PMU	3PMU
Allowable hrs per week (As per the Secondary teachers' Collective Agreement)	20	19	18	17
Allowable classes per 10 day cycle (1 class = 5x 90min lessons per 10 days)	5.33	5.07	4.80	4.53

It is proposed that this timetable be offered as a blocked, 2 semester schedule

Semester 1 – 18 weeks (Terms 1&2)	Semester 2 – 18 weeks (Terms 3&4)
Course 1	Course 5
Course 2	Course 6
Course 3	Course 7

3.0 Next steps

As a practical outcome from this sabbatical a working group has convened at Hawera High School to examine school systems, especially timetable, with a view to making significant changes for 2017.

The group has begun by exploring these questions;

- Why do we need a change?
- What do we want a change to achieve?
- What might this change look like?

Decisions will then be made and a detailed proposal will be completed by the end of Term 2 2016 for implementation in 2017.

References

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Appendix; Some observations concerning schooling in Europe and the Arctic.

I was fortunate to spend some of my sabbatical traveling in Europe and the Arctic. It proved fairly difficult to make contact with schools in these regions. The European schools were on their summer holiday (July and August) and there were language barriers. I found the Arctic schools I visited were frustrated at having tourists view their students as cute but disadvantaged curiosities. They were reluctant to allow casual visits. However, I was able to have a number of informal conversations with local teachers and other school associates that did provide some interesting insights. I have included these below.

Curriculum responses to the migrant influx into the United Kingdom

While in England I inquired as to how UK schools are responding to the current influx of African and Middle Eastern refugees. I was told that refugees are only flowing into a few schools in the poorest areas. Regional schools are reportedly “throwing up their hands in horror” while city schools are getting on with it. The city schools have been dealing with this for 30 years.

The schools that are being most successful are focussing on providing English language to their students AND to their parents and grandparents. The aim is to help families to be functional in the United Kingdom. After all, buying groceries in England is not like obtaining food in North Africa. I was told that is difficult to generalise about different refugee groups because there is a huge variety of attitudes from the various refugee nationalities to education. Some are very keen to get ahead, others are not.

The schools that are taking on large numbers of refugees apparently have huge staff turn over issues. It was advocated that the best teachers be paid to work in these schools.

Some observations on schooling in Arctic communities.

Longyearbyen on Svalbard (Arctic Norway)

This town (pop 2040) at 78°N is billed as the northern-most civilian settlement on Earth. The town supports coal mining and a growing tourist industry. The coal mining is not economically viable but is maintained to strengthen Norwegian territorial claims in the Arctic. Russia mines coal nearby for the same reasons.

During winter Longyearbyen experiences several months of complete darkness during which the life of the town continues as normal. There is a significant threat from roaming polar bears.

The town is actually fairly well connected to the rest of the world with a weekly commercial flight from Norway operating year round.

The schools and pre-school centres in the town all had notices forbidding photography. Notices seen elsewhere in town made it clear that this forthright community did not want tourists to photograph their children and reminding the reader that the teachers carry guns (for defence against the polar bears).

The Norwegian funded classrooms and school buildings I saw seemed very similar to that which you would expect to see in a newer New Zealand secondary school. The buildings were tightly grouped and interconnected, presumably to facilitate heating. The outside playing spaces were gravelled rather than grassed.

Ittqoortoormitt in East Greenland

This Inuit settlement of 465 people must be one of the most isolated villages on earth. Shipping can reach the village for only three months each year, due to sea ice. The village remains “connected” year round by a weekly small plane flight operating from an airstrip some 50 Km from

Ittoortoormitt. This flight will carry passengers and brings in essentials such as mail and medical supplies.

The community is largely made up of the descendants of seven families who settled here in 1925. The basis of the community's survival is hunting and fishing. I was told that until quite recently it was possible to live solely from hunting here but now everyone needs a little money to buy "electricity, Wi-Fi and toilet paper". There are 14 registered hunters in the village who have polar bear and walrus quota. All of the locals can hunt seals and musk ox.

In winter this village experiences several months of darkness during which life continues as normal. Indeed the winter is seen as the best time because you can run the dogs on the sea ice to hunt.

Greenland is a self-governing territory of Denmark and the Danish government meets the village's infrastructure costs. Denmark's motivation appears to be the demonstration of a presence in the region so as to maintain a voice in Arctic decision making. As a result the village appeared to have good infrastructure. They have satellite communications, a small hospital, a school, a policeman, a general store and a community sports facility. There is provision of diesel generated electricity, community laundry and shower facilities, sewerage collection and a summer only water supply. The major winter utility concern of the village is provision of street lighting so that people can spot any polar bears which enter the town.

Ittoortoormitt has an important weather observatory with daily weather balloon releases in support of transatlantic aircraft flights.

Families here tend to be large and 25% of the village's population is under 18 years of age. Education is run on the Danish system and is compulsory for ages 6-16. Apparently the school used to be staffed by Danish teachers on 3 year contracts, but they seldom stayed beyond a few months. Now the school is largely staffed by local teachers. The local school has a roll of 80 students and caters for students up to Grade 10 (13 years of age).

After Grade 10 children need to go away to boarding school, either elsewhere in Greenland or to Denmark. The cost of boarding school and university education is fully covered by the Danish government. Despite this few of the village's children leave to complete compulsory education, and of those who do go the dropout rate is high. It was explained to me that these young people have grown up in an emotionally safe environment where they are related to everyone. They have never seen a flush toilet, a sealed road or experienced racism. For most leaving is just too tough.

I was interested to hear that many of the village's young men don't much like exams and writing. They want to hunt and work with their hands! Where have I heard that before?

In 2015 the school had one student in Grade 10. He is going off to boarding school with the intention of training as a motor mechanic. This is a much needed skill and the village is proud that their school has been able to support him to reach Grade 10.

Additionally, 17 Piareersarfik second chance education programmes have been established in settlements around Greenland. One of these programmes is based in Ittoortoormitt. The participants are making handicrafts for sale and undertaking work experience, such as working on roading projects. These programmes look similar to the Gateway and Trades Academy programmes offered in New Zealand. Indeed, one group of overall clad teenagers I saw doing road work would have fitted in with any group of NZ teenagers just fine. The concept of making items for sale is new

to this community, but the students have taken to it. Apparently after tourists visit they will laughingly tease each other because “my thing sold and yours didn’t”.

Visiting this proud and self-reliant community on a cruise ship felt strange and intrusive, as if we were aliens arriving in our UFO. Indeed it seems that visiting cruise ships did cause resentment at one time and left the community feeling exploited. However, these days the village leaders employ their people to open some of the public buildings for visitors and the infrequent arrival of a cruise ship is seen as positive.

Curriculum priorities in Iceland

I did have the opportunity to discuss curriculum priorities while in Iceland. An Icelandic teacher told me that languages and swimming were emphasised.

The Icelandic language is not spoken off the island and so it is important that students learn other languages. Primary aged students are taught English and Danish. German is added at secondary school.

Teaching children to swim is seen as important in this maritime nation. They have a huge fishing industry and a high drowning rate. Most schools have geothermally heated swimming pools.

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