Disrupting the "paradigm of one": Restructuring structures to integrate learning in a modern learning environment

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Abstract

Curriculum integration in secondary schools appears to be difficult to achieve in schools that are built on traditional models of single classrooms and a compartmentalised curriculum. The relatively insular nature of secondary school classrooms is, however, being upended in the design of new schools in New Zealand, which disrupt the single-cell classroom tradition. One principal of a new school labels this old model as the "paradigm of one": a shorthand descriptor for the single-classroom, single-teacher, single-class, single-subject, single assessment arrangements generally prevalent in such contexts. The aim of this principal and this new school is to provide responsive, connected, collaborative, and deep learning.

This article outlines efforts of that secondary school to restructure the "structuring structures" usually underpinning secondary schools, and organise learning. To that end, staff have interrogated, pulled apart and reconstituted the national curriculum document to provide an integrated learning structure. In rethinking conventional views of curriculum implementation in a secondary school, the school has created an innovative "logic of practice".

I examine the thinking behind curriculum decision-making in this school and provide a glimpse of how this is played out in the first two years of its existence.

Keywords: *Structuring structures; logic of practice; new schools; curriculum integration; paradigm of one; modern learning environments; flexible learning spaces*

Introduction

Nearly two decades ago, Goodson (1992), in commenting on the development of a national curriculum in the United Kingdom, noted that curriculum documents broadly ignore socio-cultural perspectives in their structure. However he notes that schools - particularly secondary schools - are "socio-political institutions in which subjects compete for status and resources" (1992, p. 19). Denscombe (2012), two decades later, observes the continued "closed" (p. 19) nature of much schooling, as it applies to secondary school classrooms. He argued that it was time for schools to "break from a myopic focus on the conventional and commonplace if it is to offer analyses pertinent to educational development" (2012, p. 50). Open classrooms, he argues, offer much greater scope for integrating subjects and different social groupings, and altering the balance in the relationships between students and teachers. In such cases, the teacher's role "becomes that of a non-authoritarian 'catalyst' to learning" while students have a greater opportunity to have agency over their learning and decision-making. This, he suggests, better emphasises "self-motivation and self-discipline at school" (Denscombe, 2012, p. 51). Denscombe also advocates that schools can do better to weaken the need to compete for resources through fostering a greater degree of openness, co-operation and student-centred learning. While Denscombe did not address potential affordances of robust broadband, he argued that the democratisation of learning is certainly more achievable in a school that better strives for a more open culture.

In one new state school (Hobsonville Point Secondary School (HPSS)) north of Auckland, New Zealand, its leaders have rethought what curriculum is, what learning could be like, and what attributes they want for their learners. In this new school, the founding principal, Maurie Abraham, is keen to disrupt the "paradigm of one"

tradition pervading secondary schools. He argues that: this "paradigm of one" concept describes the closed nature of traditional secondary school classrooms. He uses it as shorthand for the prevalence of single-classroom, single-teacher, single-class, single-subject arrangements in such schools. This view of classroom spaces is mirrored by Deed and Lesko's (2015) comment about school architecture traditionally acting as a straightjacket and fostering feelings of alientation, and which "authorises and emphasises certain possibilities for teaching and learning" (p. 219). It would seem, then, that the "myopic focus on the conventional and commonplace" as Denscombe (2012, p. 50) notes, is being overturned in this school, to reduce alienation, separation or inflexibility. As Woolner, Hall, Higgins, McCaughey and Wall (2007) argue, this often implies that teachers must break with convention and apply new thinking and practice in new spaces.

The thinking behind curriculum decision-making in this new school and how this is played out in the first two years of the school's existence is the focus of the article, for it demonstrates how leaders in a school can take advantage of new kinds of learning spaces in providing secondary school education. Using snapshots of research data related to curriculum integration to illustrate the school's practices, the article addresses key points made in the call for papers for this Special Issue of JELPP. In other words, by examining how a school is developing its own philosophy about what education can be, it addresses such points. The call for papers argues that:

> The change from a traditional, factory model to an ILE requires educators to address and develop in specific ways a philosophy that will underpin the learning in these new environments. In addition, those leading the change need to address the highly practical changes that must occur. Those who have already developed as an ILE appear to believe that the development of a philosophical underpinning is a crucial starting point.

This article therefore, examines the HPSS principal's ideas about what the "paradigm of one" looks like in secondary schools. It also examines how HPSS has rethought and reimagined education to "underpin the learning in this new environment". It begins with three brief outlines. The first establishes what we mean by modern learning environments/innovative learning environments. The second is an explanation of the overall project outline and a key ethical issue. The third is a brief outline of the *New Zealand Curriculum* (Ministry of Education, 2007), which provided the school leaders with the context for initiating the curriculum interrogation and reformation within the school. Following those outlines is an exploration of the school's development via Bourdieu's (1977) structuring structures, focusing on how the school has been integrating subjects to create new structures of and for learning. At the same time, the open spaces of this school make this new conception of curriculum workable, as does the access to robust broadband. The leaders' intention is to create a responsive and democratic learning environment, fit for this nascent century's learners. While there are a number of aspects to the school's developing logic of practice, I am focusing on curriculum integration. For example, I could have addressed the pastoral care/academic coaching aspect, or the community partnerships, or the intent to develop agentic students who learn to adopt the attributes reflected in the Hobsonville Habits. However, this article focuses on spaces and curriculum integration. We begin with addressing the concept of modern learning environments.

Modern/innovative learning environments

Modern learning environments (MLEs) / innovative learning environments (ILEs) is a relatively constant concept, even if its name shifts. An MLE or ILE is intended to mean the kinds of learning that occurs in a climate of openness, collegiality and student-centered activity, in relatively open classroom spaces. The word "environment" is key. The configuration or geography of a space is one thing, but it is what goes on inside these spaces that is most important to initiate successful and deep learning. By focusing on the words "innovative"

and "environments" the Ministry of Education is identifying what it believes is important in new conceptions of learning. A space of itself is not enough to define the learning; how it is used is much more important for more direct links to learning success, and its emphasis on "innovative" assumes that schools are focusing pedagogical practices on more flexible ways of learning than were previously possible. The Ministry of Education uses the term "flexible learning spaces" (FLSs) to describe the physical nature of the spaces that contain moveable elements to suit a variety of learning needs. This flexibility includes partitions, different kinds of furniture, and differently configured spaces (such as quiet seminar/teaching spaces, open and large teaching spaces, open and small spaces with bean bags or low furniture, as well as relatively traditional spaces of tables and chairs). Interactions between students and teachers coupled with the pedagogical design and resources used to facilitate learning (digital as well as printed) are additional components that comprise the environment, and address the word "innovative". New spaces plus the affordances of robust wifi require different kinds of pedagogical planning and more student-centred kinds of relationships between students and teachers than traditional four-walled classroom spaces suggest. HPSS has been determined to combine elements of space, digital affordance and pedagogy to rethink curriculum practices.

Project outline

This article uses selected data collected from two visits to the school in 2015, three months apart. This selection relates to the focus on curriculum integration. The overall longitudinal project is intended to map developments of this new school through the perspectives of key stakeholders. It is self-funded from the Wilf Malcolm Institute of Educational Research (WMIER) in the University of Waikato. Ethical clearance was gained via the Faculty of Education's Ethics Committee in 2013. The research takes place in four one-day visits per year, and continues in 2017. This article, however, focuses attention on data from two 2015 visits that specifically relates to the topic of curriculum integration. It thus draws on observations of a teacher, anecdotal discussions with students, interview data with the principal, and interview data with the leaders as a focus group. I have not specifically isolated each of these data sets in the article in order to offer some measure of privacy and confidentiality to the individual teacher. Instead, I have taken the data from the two research visits and synthesised the ideas to represent in this article about curriculum integration in a brand new school.

　　Nolen, Ward and Horn's (2012) conceptual data generation frame of *past*, *present* and *future,* guides the visits and interviews. Their study design, a "cross-context, longitudinal, ethnographic study of novice teachers' learning, motivation, and identity development" (2012, p. 267), inspired the research plan for the visits to HPSS. For example, their two ethnographic methods of "longitudinal interviews and observations over time of the participants in practice" (Nolen et al., 2012, p. 271) form the main methods used in the HPSS study. Nolen et al's (2012) methodological framework of continually addressing the past, present and future, anchors the research visits with a starting place each time. It allows all participants (usually the principal and senior leadership team, but on other occasions individual teachers or students instead) to:

- revisit decisions and practices in the light of the experience of the months between visits,
- examine current practices and decisions, and
- look ahead to future plans and actions as the school develops its own rhythms and logic of practice.

A key goal is tracking how the school is creating itself. This means checking the planning, thinking, practices and adjustments over time, which is why visits mainly consist of interviews and observations. For example, the August 2015 visit included following a teacher for a part of a school day. This shadowing was informed by topics covered in a focus group interview in the earlier May research visit. The thematically analysed data from both visits that deal with curriculum integration information are used for this article. This is with the full support of those interviewed and shadowed. In the spirit of the openness that staff at the school offered me, I have shared draft analyses and writing with participants.

Analysis began with creating word clouds (using Wordle, an online tool), identifying frequently used words to interrogate more deeply. In this way, analysis follows a grounded theory approach (Glaser & Strauss, 2012). And because of the deliberate openness of the school through its online presence and teachers' blogs, many images taken during the visits for research purposes are also discoverable online, since they belong to the school. One teacher's blog post is also referred to in this article. Therefore, the school and some of its leaders are named in the article (even while the classroom teacher is afforded some level of anonymity as noted earlier), with their full permission after a frank discussion about ethical considerations regarding this lack of anonymity.

What follows next is an explanation of some of the levers the school leaders have used to reinvent curriculum and practice for HPSS, beginning with a description of the *New Zealand Curriculum.*

The New Zealand curriculum

The *New Zealand Curriculum* (NZC) (Ministry of Education, 2007) consists of two parts, commonly referred to by teachers as the "front end" and the "back end". The "front end" is the backbone of the curriculum, containing the overview and holistic framing of the principles, values and key competencies. It reflects internationally developed attributes for all learners (OECD, 2005). The "back end" of the document on the other hand, contains the learning area charts of curriculum progressions from Years 1-13 (the Years range more or less refer to ages 5-18) and span all phases of schooling. Schooling in New Zealand begins with Year 1 (New Entrant) and progresses to the final, exit year. This may be Year 15, depending on how long students stay at school, but a common exit level is Year 13. By these exit years, the aim is for students to ideally leave with NCEA Level 3 or solid Level 2 credentials. NCEA is the acronym for the National Certificate of Educational Achievement, and is administered by a national agency, the New Zealand Qualifications Authority.

The NZC is intended as a curriculum guide for schools, in that it is "used by schools to construct their own unique curriculum to meet the specific needs of their community and allows for the implementation of a concept-based curriculum" (Treadwell, 2011, p. 28). Any school is entitled to configure it to suit, as long as its objectives are used and teachers and the school can demonstrate how and why they are used to construct learning and assessment. New Zealand schools can also choose their own books and other learning materials according to need to accompany this localised curriculum shaping.

However, as most schools tend to be relatively traditional places, there is a strong pull for teachers to focus on the curriculum's "back end", ignoring the front end's central premises that should be key drivers underpinning classroom actions. This pull to the back of the NZC focusses teachers' minds (particularly those in secondary schools) on subject specificity and content, rather than the underpinning broad skills and attributes designed for lifelong learning (OECD, 2005). This often relates to the focus on the qualifications students are preparing for.

In Denscombe's (2012) terms of the "myopic and commonplace", this "back end" focus reproduces what Maurie Abraham has labelled the "paradigm of one" status quo in many New Zealand secondary schools. This is particularly marked in relation to NCEA (the national qualifications framework). Secondary schools (because of their size and complexity) traditionally compartmentalise this curriculum / subject learning into discrete subject blocks of assessment credit collection, organised by a timetable that continually reproduces this separation with little timetable alteration. Students' learning in such discrete contexts is therefore unlikely to facilitate connections between subjects, concepts, contexts, content or skills. Anecdotally, teachers comment that students have difficulty transferring skills and knowledge from one subject to another. School timetables thus exacerbate this disconnect for learners in their cell-like separation of learning and subjects. HPSS's leaders took this aspect of the "paradigm of one" seriously as a shortcoming for learners. The next section outlines the school's alternative thinking, in order to overcome this shortcoming and to take advantage of its new learning

spaces. They were also aware that "teachers were to operate in a space that would require new practices and the loss of some old processes" (Deed & Lesko, 2015, p. 222).

Curriculum adaptation in HPSS

The Ministry of Education has encouraged schools to think differently about innovations in curriculum (Education Review Office, 2013), particularly when opportunities to create new buildings and schools arise. HPSS is one of these where the principal and senior leaders took up the challenge and began afresh with curriculum, timetable, and conceptualising learning. Their intent was to disrupt the "paradigm of one" tradition of learning that exists in many schools still, to better suit new kinds of spaces and new kinds of pedagogical thinking. What follows is a brief explanation of how this is being achieved, with reference to international and national literature.

Before the first student cohort arrived, the four school leaders used a substantial period of time to develop a deep understanding of what they would "die in the ditch for" - a phrase repeatedly used by the principal across several interview visits, including those beyond the 2015 visits scrutinised for this article. Through this interrogation to arrive at a deep understanding, they conceptualised what best serves their students' needs to meet a futures-oriented view of learning (Bolstad & Gilbert et al., 2012), reinforced by the Ministry of Education's expectation that all schools will feature MLE characteristics. The leadership team thus examined values, concepts and the curriculum document before redesigning learning provision, initially focusing on the "front end" of the curriculum document (Ministry of Education, 2007). And because New Zealand schools can adapt curriculum provision according to local needs, they pulled apart the concepts in this first part before later interrogating the back end progressions, creating a matrix of learning objectives by extracting and combining learning objectives from across learning area boundaries, to look for synergies that could be exploited in its curriculum integration planning. This made it easier to later integrate learning across subject domains where students had time to develop rich knowledge, skills and understanding by undertaking what they called "Big Module" learning across two school terms (which they have called a semester). In this sense, they are responding to Deed and Lesko's (2015) observation that "openness as an influential concept in both architecture and education … challenges conventional means of control and organisation of school space" (p. 218). These authors also note that teaching in such spaces requires continual renegotiation, and HPSS staff began this process. This process included learning from the wider literature and other schools.

In New Zealand, Bolstad, Gilbert et al. (2012) for example, argued that a future-focus school centres on learners' needs, rather than reproducing structures and patterns of the status quo. HPSS's school leaders recognised the need to alter the organisation of learning. This was partly driven by the dramatic rise in the access to information and ability to connect digitally with others over the past decade. HPSS's leaders also recognised that the universal Key Competencies identified by the OECD (2005) are also about leveraging adaptive help-seeking (Newman, 1994), a learning disposition the school promotes through its Hobsonville Habits.

Other international influences included the US Association for Supervision and Curriculum Development, for example, which argued that the future of education must be about "the development of children who are healthy, safe, engaged, supported, and challenged within a sustainable approach to education and community engagement" (Association for Supervision and Curriculum Development 2007, p. 3). Slade and Griffith (2013) emphasise this idea further, observing that this century "demands a highly skilled, educated workforce and citizenry unlike any we have seen before" (p. 23) and argue that change is now the "new status quo". Nineteenth century systems and last century's classrooms are no longer adequate to "engage 21st-century students and prepare them for careers that do not yet exist" (Slade & Griffith, 2013, p .23).

While Slade and Griffith (2013) focus on the idea of education delivering a workforce to the economy, the point about old systems no longer serving the needs of learners in a more connected world connects with the HPSS leaders' thinking. The school leaders explained that they felt obligated to structure learning for an uncertain

future where citizens need to be nimble, creative and adaptive thinkers, better able to cope with constant change and were better able to apply and transfer ideas across different contexts. Changing structures and systems was, in their view, necessary.

Lichtman (2015), an American educator visiting New Zealand, wrote blog posts about his visit to HPSS. In *High School of the Future,* he commented that the school was "designed, physically and pedagogically to break virtually every boundary condition of the factory model of education" while maintaining high standards of educational provision. So what does that mean and look like? To theorise what the school is doing, I explored Bourdieu's (1977) concept of "structuring structures" as a starting place. This sets the scene for expanding the earlier discussion of school timetables and their role in separating subjects from each other.

Structuring structures

Bourdieu (1977) described habitus as the link between practices and positions. Practices refers to what is done. Positions refers to the relationships and roles of those in the community itself as well as the idea of positioning. Positioning suggests something of the relational aspect of perceptions, beliefs and agreements about what matters and how this links to cultural practices. Habitus, explained further below, broadly refers to the routines, values and culture of a community, becoming a school's logic of practice. In a new school such as HPSS, cultural and routine norms have to be established from how practices settle or alter over time, alongside the creation of the positions and positioning that help this process take shape. These also solidify into a school's structures.

A timetable is one school structure which codifies and represents what matters. It defines boundaries that express curriculum and learning. In HPSS, these needs are ascertained on a regular basis as teachers continually modify the learning in response to a weekly review of progress. These elements contribute to building the logic of practice defining the school (Bourdieu, 1980), arising through the cultural and social practices that become "how we do things around here". This norming of practice is commonly understood as habitus, which, Bourdieu argued, is the embodiment of a set of systems

> of durable, transposable dispositions, structured structures predisposed to function as structuring
> structures, that is, as principles which generate and organize practices and representations that
> can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or
> an express mastery of the operations necessary in order to attain them. (1977, p. 53)

The "structuring structures" of HPSS are being formed while they test out and modify what they will "die in the ditch for" as they establish how they "do things around here". However, in this new school, there is definitely a "conscious aiming at ends" (Bourdieu 1977, p. 53) because these practices, positions and positioning, ways of being, operating and structuring the organisation have to be designed and worked at with specific goals in mind. These goals are what HPSS's leaders expect will produce the kinds of students they think the future needs. In other words, they are organising the patterns or structures of the school to represent their conception of their prime goals and vision that embody an opposition to the "paradigm of one". So, instead of the traditional school structure defining what happens and how, they have created new structures (their curriculum framework and timetable, for example) to better enable what happens in relation to the vision and philosophy of their conception of learning (Sewell, 1992).

Giddens' (1986) structuration theory also helps understand structures, also later explored by Tobin (2015). The key tenet of structuration theory is that our actions are constrained, restricted or bounded by structures such as timetables or systems of practice. Tobin (2015) argues that school success is built over time, and accrues through many people, in "an ongoing chain of actions that produce and reproduce success every day" (p. 644). These same actions can alter the structures themselves over time – in other words, while they can appear foxed, they may also be fluid. What is happening at HPSS is a case in point. Some specific structures of schooling

might be external, such as the NZC and wider legal obligations. However, as actions take place within the school to redefine what learning looks like, they are rethinking the shape of existing structures and systems to build a distinctive school ecology. Through this reshaping and thinking and trialling, they are attempting to embody the underpinnings of the school's vision to take advantage of the available physical and educational spaces. Thus the people inside the structure or system draw on established sets of rules, resources, and social positions. These become the tools of these new social, pedagogical and professional practices.

Structuring learning: The timetable

In New Zealand secondary schools, there is huge variation in how timetables operate to "fit in" subjects and choices. The timetable may contain 50 or 60 minute periods, while others include 90 minute blocks or even squeeze in more lessons in a day by having shorter periods of, perhaps, 45 minutes. A common format is two periods before an interval (20-30 minutes) and then two more before a lunch break (40-60 minutes) followed by a single lesson before the school day is over. Some include one late start a week for staff professional development, while others may also schedule sports and cultural practices one afternoon instead of normal classes. These variations are common ways schools adapt national regulations to suit local contexts, and to fit in a broad curriculum.

It is still commonplace, however, for New Zealand schools to block subject learning into discrete periods of about four lessons a week. This structure silos subjects from each other. This can have the effect of students siloing subjects too. It is not unusual to hear students say things like "this is social studies, why are we doing maths / English?" as a result, and learners may be confused or frustrated if no explicit links are made through the design of the lesson.

The amount of time a teacher can devote to individual students in a single period of about 60 minutes is quite small. Stalling (1980) argues that the amount of time students can spend concentrating on aspects of learning has a direct relationship to eventual academic success (see also Ames, 1992; Karweit, 1983; Siefert & Beck, 1984; Wang, Haertel, & Walberg, 1993-1994). This also implicates the size of classes if feedback and feedforward are also important for both relationships and eventual learning success. Hattie (2009) and Hattie and Timperley (2007) consistently argue that feedback and reflection are critical for successful learning. These combined effects led to HPSS's leaders debating what a timetable would like to avoid these issues.

Structuring learning

By debating and refining what they would "die in the ditch for" regarding learning, HPSS leaders defined a set of principles about their curriculum decision-making. They would:

- Innovate through personalising learning
- Engage through powerful partnerships
- Inspire through deep challenge and inquiry to develop empowered learners. (Amos, 2014)

These three components underpin the school's structures of timetable, pastoral care, community partnerships, and helping students develop intellectual passions. Thus a typical school week contains learning hubs, specialised learning modules and project learning in large blocks of time. Through the modules, students are guided to focus on one theme at a time *across* subject domains and do so over two terms (one semester). This includes learning specific foundational concepts and discipline knowledge. Short modules - of about one week's duration - can be opportunities for specific learning, such as the one week module SPIN (Space and Time) example that one teacher blogged about (Finnerty, 2015, 18 September).

Constructing the timetable was one of the last pieces of the structural puzzle they created to represent how they wanted the learning to occur. Amos' (2014, 3 February) blog post about the first iteration of the timetable outlines the initial structure, while updated versions evolve as they learn more about what works. These updates

have shown that the timetable is malleable rather than fixed, being adapted to meet the decisions they made with evidence from the first year's implementation, and subsequent cohorts adding to the complexity. This is one of the ways the school leaders demonstrate their willingness to adapt what they do in the light of experience and evidence. The initial thought of having learning options being vertical for everything (ie a mixed cohort of, for example, Years 9 and 10) was later modified, while keeping the conceptual and guiding framework intact, because they soon realised that this would be overly complicating future module developments and students' progress. Through constant reflection, the school thus continually adapts how it provides learning while it reinterprets curriculum provision and restructures the timetable to fit the needs of the vision. Mixing up the first two cohorts as one into larger classes for some modules has therefore meant serious adjustment to better suit tiered learning needs. As students progress to senior years, they needed to map progress more simply, while still offering students opportunities to extend themselves. This resonates with the idea expressed in the call for papers for this issue.

The school's specialised learning modules for example, cover both curriculum areas and "fluencies" (Amos, 2014, 3 February), including a range of learning experiences that take the best ideas and apply them to specific contexts through seminars, group work, individual or independent learning, workshops or other configurations. Many of these configurations blur distinctions between home and school, especially as students can access all school learning information from anywhere. Students regularly use online tools to support their learning, and most have a mobile device (laptop or tablet) as central to their daily school life. The school is also equipped with charging lockers so students can safely recharge their devices, securely locking them in with their own lock. This makes it easy for students' gear to be safe, fully charged, and available.

A key aim in all modules is to encourage students to practise critical and creative thinking, a core Key Competency in the NZC (Ministry of Education, 2007). The structuring structure of the curriculum document's Learning Outcomes for levels across subjects and, in particular, the Key Competencies, is the basis upon which the school builds its modules. Students engage in inquiry practices to better develop understanding, while teachers continually reflect on their practices to improve curriculum provision through a collaborative critical friend process (Wright & Adam, 2015) and regular teaching team meetings.

Framing a learning structure

As the school's goals indicate, they want students to "Reach for the sky" / "Whaia te iti kahurangi." The school's vision for all learners "is one of personal and academic excellence; that they will develop as confident, connected, actively involved and life-long learners . . . empower[ing] them to live successfully and contribute responsibly to their communities" (Hobsonville Point Secondary School, 2015). The school also espouses a set of principles for students (Table 1) that frame their structures.

The description of a learning module (later in the article) enacts the principles outlined in Table 1. It also uses individual parts of the Learning Design Model (Figure 1) which features in all practices of learning.

For example, in one Big Module I observed in 2015, students completed a table template for one English component as they learned about specific text type options for representing their finished work. This task was based on the EXPLORE hexagon element of the Learning Design Module, representing the first steps in their task. Later, they would be using the EVALUATE hexagon where student must decide on the merits and shortcoming of various text types they have explored, in order to arrive a decision about which one they will use. Whichever hexagons feature in a task, teachers and students understand the purpose of the task. They thus use a common learning language across the school.

Their Learning Design Model is an example of a structuring structure. It both embodies and positions learning but offers flexibility as a cohesive structure for learning. The hexagon shape means teachers can choose connections across the elements of the model in multiple ways, using them in a wide range of combinations as they structure learning.

Table 1:   Hobsonville Point Secondary School's principles

| Key elements	Benefits for learners
Personalised learning	• challenging relevant programme tailored for individual learner needs • level, not age-based; motivation and engagement
Learning hub and coach	• caring, small group structure of Learning Hub • support, challenge, progress tracking and goal setting
Powerful partnerships	• key nurturing relationship and family partnership with personal Learning Coach • connecting with business and community learning partnerships
Specialised learning	• New Zealand learning area coverage and integrated curriculum topics • meaningful assessment to demonstrate learning
Deep challenge and inquiry	• empowering learners with complex problem-solving skills • intellectual rigour that develops strategic thinkers
Learning projects	• links purposeful learning to student interests and passions • exposure to authentic learning experiences and opportunities
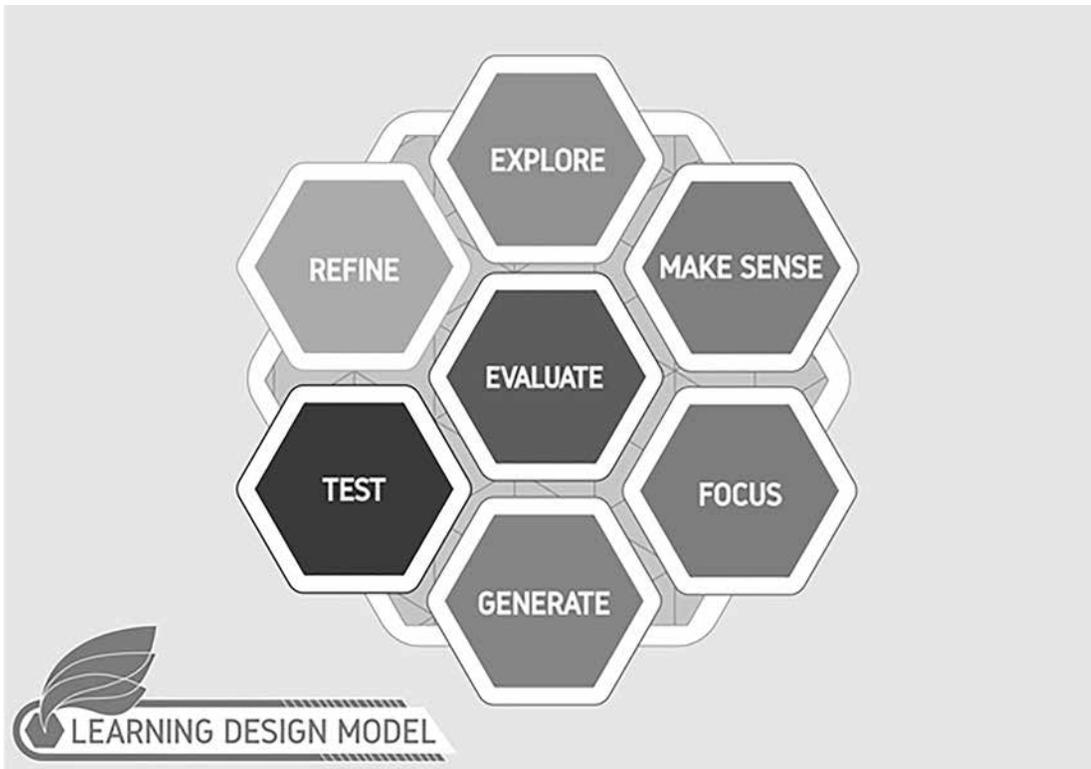
Figure 1. Hobsonville Point Secondary School's Learning Design Model

The entire hexagon shape also evokes how a beehive operates. A honeycomb is central to the workings of a community of bees and is always hexagonal in shape, inviting simple connections from shape to shape. Community is an underlying structure at the heart of HPSS. The honeycomb structure of the Learning Design Model not only identifies what matters, but makes it accessible, offers connections across elements and frames key competencies. This honeycomb structure might also represent powerful partnerships: learning is structured according to the relationships between and among these elements. In referencing bee communities, this model also suggests the inter-relatedness of all elements of the school's learning structure. This echoes the focus on integrating curriculum and the social and professional networks that enact it. It thus operates as a structuring structure - both fixed and fluid.

Enacting an integrated curriculum

To begin this section, I refer to international literature as a starting point. Goodson (1992) discussed siloed subjects competing for resources, yet the structures operating so far at HPSS suggest that this kind of competition for resources appears almost non-existent. Perhaps it is a result of the school's newness - resources and equipment are a work in progress, and may change over time. Or, perhaps through the integrated curriculum team-teaching modules that predominate, there is greater sharing of the same resources, and greater connections between teachers across subjects. Perhaps since teachers work together, they create fit-for-curriculum-purpose resources as learning needs arise, and save these in shared folders for others to adapt and use.

While integrating curriculum is not a new concept or practice, HPSS staff are beginning to see the value for students' learning, both anecdotally and in their achievement, although it is too early to judge in terms of NCEA levels. Examples in the international literature to draw on are not very common but suggest some indicators of the value of integrating curriculum. Grouws, Tarr, Chávez, Sears, Soria and Taylan (2013) for example, described an experiment in 10 United States schools with over 2000 students learning mathematics in one of two ways - half via traditional means, half via an integrated curriculum arrangement. Results showed strong differences. The authors report that the group that learned mathematics as coherent topics showed significant advantages over the group taught by traditional means on 3 measures: a test of common objectives; problem-solving and reasoning; and standardised achievement tests. This suggests value in addressing mathematical concepts in holistic ways that apply problem-solving, reasoning and sense-making, and real-world applications. These holistic ways also included students working in teams, actively learning and communicating with each other (Core-Plus Mathematics, n.d.). When learning fosters integrating conceptual knowledge with critical thinking about solving realistic "concrete" problems, it would seem that learners gain benefit. The holistic ways identified by Grouws et al. (2013) appear to be core practices in HPSS's integrated modules. This tries to replicate how people learn in informal, social settings.

By creating thematic modules based on learning objectives and progressions from a range of subject areas, HPSS teachers are broadly positioning learning to focus on Key Competencies as well as subject discipline knowledge. They appear to be designing learning around key learning outcomes central to specific levels of specific Learning Areas. Through such planning and practice, students appear to be grasping interrelationships and synergies in ways that students in schools where subject learning is separated, may not. As the first cohort is, in 2017, in Year 12, their learning is centred on Level 2 of NCEA. By the end of the year, their results will provide a comparison point at a national level. This has not been possible before, because the school has decided that Level 1 NCEA does not materially help students. They have not entered students at that level of the qualifications framework, but concentrated attention on Level 2.

Structuring learning with digital technologies

A central part of the school's curriculum integration is the regular and embedded use of digital technologies. Teachers plan and teach using Google's suite of tools, including Google Classroom. They share relevant documents with students, who may also work with printed resources. To document learning, students turn work into pdfs and upload files to their own individual folders. This creates a coherent relationship between digital tools to underpin learning, and the content and context of learning itself, while also using traditional learning materials. By uploading working documents, teachers can digitally check individuals' progress against their learning aims. The digital monitoring of learning progress is thus an important part of this learning integration.

The value of an integrated curriculum appears to be demonstrated in the quality of projects students produce as well as their ability to articulate their views about learning. They can clearly explain the connectedness of ideas and how they work in practice. In 2015, when shadowing a teacher, I also asked individual students to explain what they were learning and how the subjects linked. Regardless of who I asked, they were all able to explain connections and the extent to which learning from one subject was enhancing or contributing to learning in another. This mirrors Maurie Abraham's experiences, as he often talks to students about what they are doing and learning. A constant theme emerging from these conversations is, he says, that:

> . . . students talk about learning as being easier because it's being connected to something else. Students can articulate how context helps make sense of discipline learning. One theme is Refugees / Migration through the social sciences. Here they examine the statistics of human migration and refugee movements. It's about learning to see patterns while learning maths in an applied way. Because it's no longer an abstraction, it makes sense. Context provides sense…. Now we *do* know that the linking of learning areas works for learners. This is vital. (Interview, May, 2015; italics indicate spoken emphasis)

Abraham goes on to say that curriculum integration is a principle they would "die in a ditch for" – one of their non-negotiables for their learners. Ongoing evidence from student achievement in relation to curriculum levels is promising so far. Ames (1992) observed quite some time ago that, "tasks that involve variety and diversity are more likely to facilitate an interest in learning and a mastery orientation" (p. 263), and it would appear that so far, students in HPSS exhibit these levels of motivation.

In the organisation of HPSS's learning programmes, outcomes are clear in the semester-long integrated modules. This time span is crucial to integration, contributing to students being able to develop depth, proficiency, and breadth in their learning. The learning outcomes and whole project goals are often linked to a community project, fostering the partnership principle of the school. To enact integrated learning, teachers collaborate in teams, just as students are invited to regularly work together and take advantage of the variety of learning spaces. As the principal asserts, this teamwork is about

> . . . the power of collaborative teaching - planning and teaching together - exploring each other's curriculum areas and making sense of whole curriculum rather than small bits. [This is the] bigger picture thinking. (Interview, May, 2015)

The two principles of collaborative teaching and integrated curriculum have helped HPSS leaders define what matters. Over time, the embodiment of these principles in practice crystallise what Abraham says, is the "picture of what a full cohort of students will look like". This watershed point helps them map the future arrangement of learning as a structure when all major levels of schooling - Years 9 to 13 - exist in the school by the start of 2018. The school has conceptualised students as three cohort categories:

- *Foundation years:* Years 9-10 (students who are about 13-15 years old). These students undertake small modules, "spins" (specific learning modules) and curriculum modules.

- *Qualifications years:* Years 11-12 (aged about 15-17), focused on the *New Zealand Curriculum* levels 5-7. This means the modules can take specific curriculum level objectives from across subjects and combine them into integrated learning packages. The focus is on Level 2 NCEA.
- *Launchpad or pathways:* Years 13-14, usually the final year(s) of schooling. At this point students are 17-19 years old. This is where students look ahead to further tertiary learning (university, polytechnic pathways) or enter the workforce after leaving school. The aim is that students leave with a minimum of Level 2 NCEA, and accrue enough Level 3 credits that they can enter their preferred career or tertiary study while being guided by their Learning Coach. (Interview, May, 2015)

Each semester (two school terms) contains two modules running parallel to other configurations of learning, such as the students' passion projects or specific compulsory learning modules. As cohorts move through the qualifications years to the launchpad or pathways years, the school continues to develop its processes, logic of practice, understandings and ethos. It is continually restructuring its planning to accommodate new students. Perhaps this exemplifies what Sewell (1992) suggests, that "Structures shape people's practices, but it is also people's practices that constitute (and reproduce) structures" (p. 3). HPSS is showing how a relatively non-prescriptive curriculum document can be interpreted to avoid the "low capacity for agency" that Priestley, Edwards, Priestley and Miller (2012, p. 192) suggest has happened in other "educational systems" in relation to curriculum development.

Discussion and conclusion

This vignette of a school in the process of becoming, developing its logic of practice and evolving its structuring structures, serves to illustrate how a vision can create a conception of schooling that is different from the traditional "paradigm of one". Through reinterpreting the curriculum document and aiming for learning to replicate how people behave and make sense of the world, the structure of learning in HPSS so far enacts and embodies the principles that staff will "die in the ditch for".

The espoused principles are underpinned by knowledge about effective learning, and a clear aim is to foster students' critical and evaluative thinking, while also aiming for students to have a rich and integrated learning experience. The curriculum combinations offer students choice while often providing connections with the wider community and an audience for the products of their learning beyond the classroom walls. Giddens' work (1986) helps understand the relationship between the structures and the enactment of what matters, and, as Tobin (2015) argues, school success is built over time and the actions of many people in "an ongoing chain of actions that produce and reproduce success every day" (p. 644).

Thus the structuring structures that Bourdieu (1977) defined, continually evolve the logic of practice in HPSS via the multiple actions of staff in response to learning needs reviewed on a regular basis. This is a "chain of actions" that can "produce and reproduce success every day". Big Modules for example, demonstrate the "multiple and ongoing actions of many actors" (Tobin, 2015, p. 644) with the goal of making learning meaningful and purposeful for all concerned. The actions of the school leaders in enculturating staff and students to operate in particular ways to develop a logic of practice suggest Tobin's "enabling structures" (p. 643) as derived from structuration theory in which both the system and the agents work together. In the case of HPSS, the curriculum system of the school is developing as a logic of practice via structuring structures which are both fixed and fluid. The agents are the leaders, teachers and students who embody the structuring structures as each day unfolds and as the structures themselves become altered and are made meaningful by that experience. Time will tell if the vision matches the academic success of the first cohort of students as they progress through NCEA Levels 2 and 3, when their rates of success are able to be compared nationally.

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