

Digital and Information Literacy Curriculum Mapping a Stratagem for collaboration

Introduction



Discovery College is a 1-10 school situated in Hong Kong. We welcomed students on the 19th August 2008, starting with just over 700 students in years 1-8. We have since grown to just over 900 students by increasing a level each year. The goal is to have 1400 students from years 1-13, and offering all IB curriculums in 3 years. We are a Mac 1:1 school from year 6, with high access to computers for years below this with shared lap top carts, a small number of desktops in each classroom and other desktops in the shared areas and library. bringing the ratio is about 1 computer for every 2.2 students below years 6. We do not have a computer 'lab' as such and the computers are used as need arises or planned.

As we are a new school, our staffing, systems and curriculums are still being developed, and being developed very quickly as requirements are identified. I started at the school just before we opened, and I was the teacher librarian for both the primary and middle years programs as well as trying to help teachers use digital tools. One year into the schools life, a Digital Literacy Co-ordinator was employed and took on the role of mentor and coach for staff for digital literacy, and I am mentor and coach for information literacy. We have also employed a teacher librarian for the Primary years program who has taken on this role at the primary level while I focus on the middle years.

What did we
want to achieve?

What standards
would we use?

Why was it
important?

CONSIDERATIONS ----

How would
it be used?
Who will be
using it?

How would it
be formatted?
What do we need
to include in the
document?

Who would be involved
in its development?

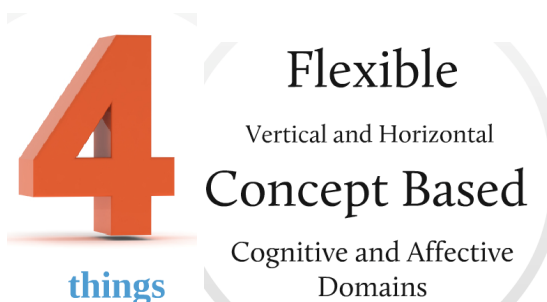
What was already
available?

As the Digital and Information Literacy team started to work with teachers and students, we soon realised the need for a curriculum to ensure that standards were being met in a systematic way, and to ensure that Digital and Information literacy concepts and skills were being explicitly taught within the framework and integrated into units of work the students and teachers were undertaking, either by us or by the teachers. It was a very haphazard, ad hoc and hit and miss path that was being taken.

In January 2009 Donna Ellery, the Digital Literacy Co-ordinator and myself met with our PYP and MYP co-ordinators to mull the idea of what we wanted to do and how we wanted to develop the ideas. They were happy to help us and to help us as a sounding board and to give us advice regarding the IB curriculums and ensuring that we were meeting the requirements.

What did we want to achieve?

We wanted to create a curriculum that had 4 essential elements.



Flexibility. It had to be flexible enough to withstand 'changes and improvements' to the document while still maintaining the integrity of what we wanted to achieve. It also needed to be flexible enough to cover all of the programmes we offer at the school - starting with the Primary Years and moving right through to Diploma level, allowing for naturally occurring progression and learning, and also being flexible enough to allow students to come into the school at any time.

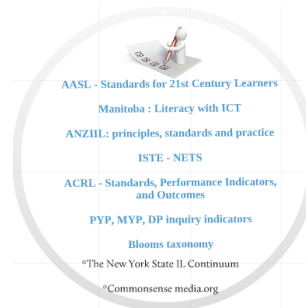
The curriculum needed to be look at both vertical and horizontal elements of a students progression through the school. There would be benchmarks, but they may not necessarily be set according to year level, although that may be a part of it, and within these benchmarks have opportunities for students to learn, improve and master different elements. We also had to include or reflect how our curriculum fits in with the International Baccalaureate curriculum and standards across the school and within each program.

We wanted the curriculum to be concept rather than skill based as we felt that skills were too limiting due to constantly changing and become obsolete, and skills based curriculum was limiting in how it could be taught. We felt that concepts, or **enduring understandings**

were what we wanted in the end, and so we needed to create the curriculum based on those we had identified from the various standards papers that had been already written.

The curriculum also needed to address both cognitive and affective domains where it was not enough for the student to be able to do something, they needed to attach values, beliefs and have an understanding of ethics, integrity and appropriate conduct whilst using these skills.

What standards would we use?



Fulfilling the four essential elements was a tall order and one that could not be found in something that had already been created by someone else. We looked at a number of standards documents, at what they contained, the language used, how they were set out, and what the enduring understandings or concepts that were offered. Each one of these documents had strengths and something to offer us. We also had to include the PYP inquiry indicators and the MYP approaches to learning standards.

After thoroughly scrutinising these documents, we found that no one or two was going to fit the bill. We needed to extract what we wanted and use it in the way we needed to, thus creating something that was going to meet our needs.

Why was it important?



After looking at the various standards and documents from all over the world, we then had to decide the importance of doing what we were about to embark on. Both Donna and myself felt that we were the experts in these fields in the school and as such providing leadership was an integral part of ensuring that standards were being learned, and that the situation of ad hoc, piece meal, stop gap teaching and learning was not doing anyone any good. Staff needed leadership and models from which to learn. This curriculum was needed to provide direction and leadership for the whole school in teaching digital and information literacy across the school in a planned and purposeful way.

While direction and leadership was the main reason, other consequences from developing such a document would be supplying a form of accountability as to what we are actually doing with students, teachers and classes. Donna, Leanne and I are all on flexible schedules which could be misconstrued by some as not pulling our weight or 'teaching', with the curriculum document, we could show what we are planning to do, and through the mapping and documentation, demonstrate what we have already achieved. The curriculum would also be part of our advocacy package - the concepts need to be taught throughout

the school, however, in most cases the teaching staff are at a loss as to how ensure continuity, have little idea of what is going in other year levels and curriculum areas and in some cases, they do not have the skill or knowledge level to move out of their comfort zone. The curriculum would give us an avenue into co-planning, coaching and mentoring teaching staff that would be sanctioned by the school leadership team.

When we were employed, it was made quite clear to us that our roles were to be as coaches and mentors for Digital and Information literacy. That we would teach a class and the teacher how to do something, next time the teacher would teach it with us assisting, then, they would be on their own to teach it as the need arises. Our team is not to be delivering the same message / skill/ concept to students all the time - our role is to upskill the teachers so we can continue to develop the digital and information literacy programmes in the school.

This curriculum was going to help us with this mentoring role, and, to make connections with teachers and students across the whole school, and have teachers and students make connections with Digital and information literacy and with each other.

What was already available?



We had a look at curriculum or scope and sequence of what many other schools had created and found that there was at least one of these four elements:

Prescriptive : They were very prescriptive in nature - skills based and according to year level or age level. We wanted have these 'levels' as a guide but not be limited by them. We also did not want skills to be the directional force of the document.

Low Level learning : Many were working with the lowest levels of blooms taxonomy. As an IB school we needed to move beyond and give opportunities for growth beyond skills - we wanted application, analysis, creation, evaluation and values and beliefs to be a part of the package.

Limited scope for Advancement : Once the students had learned the skill - what next? Where could they go - did they have to wait until next year? Where was the differentiation of learning?

Unbalanced: In many of the curriculums and even the standard documents they were either unbalanced toward digital literacy or information literacy. We wanted something that integrated both as they are integrated in real life - there is no separation information literacy is part of digital literacy and digital literacy is part of information literacy.

Who would be involved in its development?



We had and still have visions of this being a whole school project, yet we needed a few key players to create the drafts, vision and direction. The creative team included Teacher Librarians from both schools, with the whole school digital literacy co-ordinator. We would consult with the MYP and PYP co-ordinators to ensure we were fitting in with the IB missions, standards and pulling in aspects of these programmes into the curriculum to make it a seamless infusion.

We would also need to take the curriculum to those at the frontline to share with their teams and to start working with the document. They would be aware of what we are doing and what we need, and would work with their faculty and year groups to understand the curriculum and see how it works in a practical sense.

This was getting bigger than Ben Hur - we had ideas of what could be included and what others had included in their documents, we then had to specify what would be important for us to help us to focus on our goals and the direction we wanted to head.

What do we need to include in the document?



It was going to be concept driven, so these would be the main driver of the curriculum, standards would be part of these, and the strands of the curriculum would be guided by the key concepts. We also wanted to reflect blooms taxonomy throughout and to include the IB inquiry indicators.

		Literacy with ICT* Across the Curriculum A Developmental Continuum Snapshot of the Emerging Learner**				
		COGNITIVE DOMAIN				
		Knows-Comprehends-Becomes Aware	Applies-Analyzes	Synthesizes-Evaluates-Values		
Plan and Execute	P11	Search for useful print knowledge and use hypertext	P21	Use the Internet to find information and use it to solve problems	P31	Use the Internet to find information and use it to solve problems
	P12	Make plans first	P22	Use the Internet to find information and use it to solve problems	P32	Use the Internet to find information and use it to solve problems
Gather and Make Sense	G11	Read and click on links to find information. Read, click, copy, paste, print, save, delete, and use the Internet to find information	G21	Use the Internet to find information and use it to solve problems	G31	Use the Internet to find information and use it to solve problems
	G12	Read and click on links to find information. Read, click, copy, paste, print, save, delete, and use the Internet to find information	G22	Use the Internet to find information and use it to solve problems	G32	Use the Internet to find information and use it to solve problems
	G13	Read and click on links to find information. Read, click, copy, paste, print, save, delete, and use the Internet to find information	G23	Use the Internet to find information and use it to solve problems	G33	Use the Internet to find information and use it to solve problems
	G14	Read and click on links to find information. Read, click, copy, paste, print, save, delete, and use the Internet to find information	G24	Use the Internet to find information and use it to solve problems	G34	Use the Internet to find information and use it to solve problems

How would it be used?



And of course the advocacy was one of the key uses - what do we do all day? - by using this curriculum, we could actually have concrete examples of what we do all day and the learning that occurred because of what we were able to do.

Who will be using it?

The DIL team

Teaching staff

Executive

The users of this document would initially be mainly the DIL team, then once it has been mapped and embedded into the curriculum the teaching staff would come on board in more than a supportive role and implement the concepts into the curriculum themselves, rather than being mentored and 'forced' to do so. The executive would use the document as part of the school documentation for accreditation and as a guide to what is going on.

Tools

Obstacles

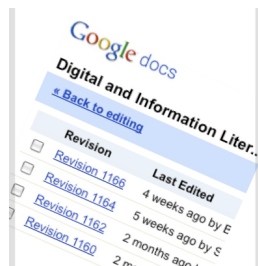
THE JOURNEY

Staff
Education

Mapping

Time

Tools



The journey that we are currently taking has included a few elements and considerations and it all has not been smooth. The **tools** we are using include Google docs - we have created a number of google docs that have all served different purposes. In the design phase we created and discarded and modified numerous docs, and when we did settle on something we have numerous changes which then required movement to a new document as the beast evolved. You can see here that we have over 1000 modifications on this initial doc. We are also using google docs for the mapping, which we will see shortly.

Staff Education



Staff education is a another step we are taking step by step and slowly. We have started using the drafts with our co- planning times and working the concepts into the conversation and unit plans. We have had a few whole staff meetings to explain the document, and as we work with different staff, we also help them to understand the document. The response has been extremely positive and welcoming.

Time



All this has taken a huge amount of **time** - we started in January of 2009, working about 2-4 hours each week together and then more time individually as we explored options and added to the document different ideas, and, it is still in draft form and still being modified.

Mapping

[Google doc link](#)

Mapping has begun, this is an example of how the PYP team are mapping using Google docs, using the concepts as the focus with what skills / tools are being explicitly taught and by whom. The example on the wiki is for yr 3, and a document has been created for all the PYP year levels. The MYP has started mapping, and felt that we needed

Obstacles



Obstacles have popped up - this was interesting as the DIL team started working together. Assumptions were made about a number of things, and then it was discovered that these assumptions about each others understandings, knowledge were different and caused some heated discussions, where we could not move forward until they had been resolved as they were affecting the direction and approach to the document. Two areas that caused the most contention was the vision for the document, and what and where digital and information literacy were and, how they worked with each other.

The vision was more about who would be using this curriculum, I wanted to open it up to all the school to be used as a planning guide and advocacy tool, whereas team members felt that it should just be used by us.

The other area was how digital and info literacy fitted with each other - which is the more encompassing literacy? We worked through the discussion and moved forward.

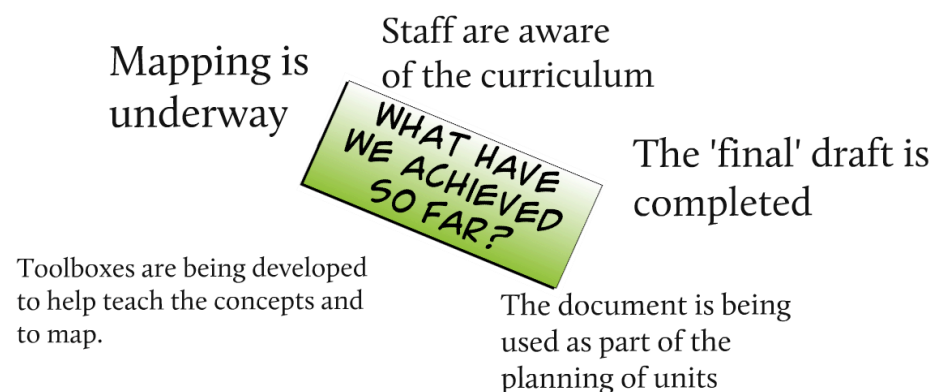


Links to documents

What have we come up with?

The documents are still a work in progress, however, we have the format, the concepts, the strands and the possible skills and key questions that may accompany each strand as a guide of the type of activity that will fit under the strand.

We have created a draft for both the affective and cognitive domain, and some concepts are quite difficult to come up with learning activities and skills for - this will require some more thought.



Our achievements so far is that mapping is well underway, we are developing toolboxes to go with the strands - large circles in the PYP classrooms, the curriculum is being used to guide learning activities in planning meetings with all the staff, and we have a working draft that we are somewhat happy with, but of course, we continually find new things and ways of looking that may help us to make improvements.

Our goals for the end of this year is to have mapped what have been taught and by whom, and see where the gaps are measured against the curriculum, We will then evaluate what is happening with DIL and make improvements as required as we learn more. The document will become an integral part of the planning and digital and information literacy will be brought to the fore as essential literacy in the minds of our teaching staff and parents.