

Trans-Disciplinary Curriculum and Learner Profiles

and their possible application in the New Zealand
Curriculum

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Purpose

To further investigate how a 'trans-disciplinary' curriculum is implemented in primary schools and to find the common elements of success.

To study the development of 'Learner Profiles' and how they can be used to show the development of the Key Competencies using a trans-disciplinary curriculum.

Rationale and Background

Overcrowded Curriculum

I was concerned at the overcrowded nature of the curriculums of the 1990's that were full of achievement objectives which robbed teachers of their creativity and passion for teaching. This caused a slavish approach to teaching by meaningless objectives and checking them off. I felt we had developed a scattergun approach to teaching without doing justice to any topic in depth.

Ecology of Learning

I began to recognise that we had some powerful pedagogical underpinnings in our teaching with the use of de Bono's '*thinking hats*', Gardner's '*multiple intelligences*', Vygotsky's '*zone of proximal development*', Costa's '*habits of mind*', and Bloom's

'taxonomy of higher order thinking'. Over a period of time we developed a resource entitled 'Ecology of Learning' which was used by all teachers.

New Basics

I became interested in the New Basics programme being trialled in Queensland and began to use some of the literature from their trial to develop a system that would work at Winchester School and fit the (now old) New Zealand Curriculum. We developed a Rich Task model to incorporate the teaching of social studies, science and health in a trans-disciplinary way.

Extending High Standards Across Schools Project

Whilst developing this approach to teaching I applied for and won an Extending High Standards Across Schools Contract to work with four other schools pursuing further the idea of a Rich Task curriculum and pedagogy based upon the ecology of learning idea.

NZ Curriculum

As we were part way through the Extending High Standards Across Schools Project the recently published New Zealand Curriculum was introduced to schools. This provided a very exciting landscape in which to develop the Extending High Standards Across Schools and create an innovative school curriculum, home grown to meet the needs of the Winchester School community. We now had a secure mandate to continue what we were doing and satisfy the requirements of the New Zealand Curriculum. Before that, we were out on a limb with the work we were doing. We set about to clearly define our pedagogy and to build the development of the Key Competencies into our work.

Inquiry Model

We had a regular facilitator from the Queensland Project, Hanan Harrison, who helped us to develop an enquiry model using the rich task ideas and developing the richness in the Rich Task Units we planned.

These factors provided the backdrop to the study I wanted to undertake whilst on my sabbatical. The aim was to further develop my ideas and feed them back into the Extending High Standards Across Schools Project cluster schools. Unfortunately, while I was away on my sabbatical the Extending High Standards Across Schools projects were shut down.

Programme Outline

I began by completing professional reading around the concept of developing a 'trans-disciplinary' curriculum and the use of 'Learner Profiles'. This helped set the scene for my visits to the educational institutions in Queensland and Singapore.

Visit to Queensland

I travelled with a group of 20 teachers from our Extending High Standards Across Schools cluster of schools to visit the Queensland schools. We spent a week in Queensland visiting three schools associated with the New Basics Project and worked

with Hanan Harrison from the Australian National Schools Network. Hanan has also worked with our Extending High Standards Across Schools cluster in New Zealand.

Key Findings in Queensland

The concept of collaborative planning was an essential component in all three schools, although it was done very differently at each one.

At Thornlands School, particularly in writing, teachers got together and shared their ideas and visions. Despite this, the planning process was still fairly prescriptive and there was a huge emphasis on coverage with a high level of accountability with little flexibility. From that initial collaborative approach, the planning was then completed in a top-down approach. The HOC or Head of Curriculum had the final say and wrote up the plan, assembled the resources and handed everything to the teachers and they taught it. There were obvious advantages and disadvantages to such a system.

While the concept of the collaborative planning was discussed in depth and appeared to work well for the staff at all three schools, we didn't see a lot of physical planning in a couple of the schools (that is not to say that there wasn't any) in terms of weekly plans, workbooks etc and there seemed to be little, if any, planning for instructional groups, especially in reading. What planning that we did see at the first two schools, in terms of core subjects was not very detailed, despite there being extensive expectations to meet all of the essential learnings, of which there are around 79 of them!

People commented that when there was planning that they had seen, it was reflective of 'teaching to the test' practice and a 'chalk and talk' approach that we observed in some classrooms. This was largely in light of wanting successful achievement in National Testing. It's important to note that each state currently has its own curriculum but there are plans to introduce a national curriculum.

The highlight for us in terms of curriculum and planning was when we arrived at the third school, Chevallum State School. A key concept here was that of a negotiated curriculum. Refusing to be constrained by national testing and Key Learning Areas and making planning and their curriculum delivery fit these things, they did the opposite. They made the testing and Key Learning Areas fit and suit them. Chevallum State School was and still is a firm advocate of the New Basics Curriculum.

Chevallum follows the New Basics Rich Task Curriculum but also uses the Blueprints. Blueprints are planned and assessable tasks, which were developed in response to teacher demand for more Rich Tasks and more flexibility in implementing them. They are now at a stage where they are writing their own school tasks in this nature and catering for all levels of their school in meaningful and lifelong learning contexts.

As we visited each school in Queensland our group quickly became used to some new acronyms listed below.

NAPLAN is Australia's national testing of literacy and numeracy at Years 3, 5, 7 and 9.

All testing is done on the same days across the nation and the results of these tests are used to determine funding for schools; to rate schools and the different States overall performance.

QCATs are the Queensland Comparable Assessment Tasks, designed by Queensland State Education to provide a means to compare achievement across all Queensland schools. These were often referred to as better than NAPLAN and more like mini-units. Chevallum State School said that their students questioned the purpose of the QCATs for their learning.

Queensland also has a standard statewide reporting format, which is based on the essential learnings curriculum. Each curriculum area is expected to be assessed and reported on every half year – which is quite different to the expected coverage of our NZ curriculum.

Rubrics, prescribed by Queensland State Education, are used extensively for assessment of the essential learnings curriculum and QCATs. Chevallum developed their own material for their Rich Tasks, because Queensland Government support ceased at the end of the New Basics trial.

We saw quite a range of teaching styles across the three schools. There was some very teacher directed, controlled teaching and learning. We also saw student directed learning involving inquiry, in which students took on greater responsibility for their learning.

Thornlands had a real focus on raising student achievement in written language. They identified a number of negative factors that were contributing to poor writing, and from there committed themselves to improvement in writing achievement. Lessons were centred around explicit teaching of writing. They had clear, detailed expectations of the writing task. This may have had a grammar, punctuation, or figurative language focus. The tasks were often short but very prescribed. For example: Write 7 sentences. New beginning. Incorporate the 5 senses.

Teachers had to be up skilled in certain areas of grammar and punctuation, in order to bring up student achievement. They also put together a handbook to help with the teaching of writing.

The style of teaching was generally from the front of the class. Working in books was a focus. We didn't see children working in groups so much. There was little evidence of student work, graphic organisers, or thinking tools on the classrooms walls.

Eatons Hill had a strong focus on planning collaboratively. The idea being that in discussing planning together they could raise the intellectual rigour of the tasks planned but with flexibility in the delivery of it. Teachers worked under a set of core expectations but could exercise freedom of pedagogy.

They are well resourced in regards to ICT. Teachers had projectors in each classroom

that they used during their lessons. In the delivery of their lessons, we saw many teachers using projectors. They had a great ICT suite, although we didn't see the students using the resources much. Again we saw much teaching from the front of the class.

The student learning has a strong environmental focus. The school has taken on a number of environmental initiatives. Eatons Hill had a strong focus on students learning about, and looking after the environment. Their school environment reflected this. They had taken on initiatives such as recycled water irrigation throughout the grounds, lights with power save devices, litter free lunches, solar power, and composting.

Patriotism was evident. Students were proud to be Australian. This was true in all three schools.

Chellavum, was the school we walked into and felt most at home with. Chevallum has a motto of "Individuals Learning Together". They believe in individual differences being acknowledged and valued. They recognise the need to develop all dimensions of learning. Their holistic approach to a child's education gave a feeling of our NZ schools. The teaching and learning did not appear to be as prescribed as perhaps in the first two schools.

They believe in intellectual rigour and 'raising the bar'. The principal spoke about the capacity for a child's learning being huge, and the importance of raising teacher expectation of student learning. The teacher first needs to believe the students can get there, and then they will. The Rich Tasks demand intellectual rigour. They encourage inquiry learning and autonomy. Students are engaged in learning using ICT.

Chevallum maintains the New Basics Programme with the Rich Tasks. They believe that these rich tasks encourage intellectual rigour, and real world value and use.

They use higher order thinking in their learning tasks. 'Habits of Mind' is a school wide programme designed to help students behave intelligently when confronted with a problem. They chose the Habits of Mind programme because they believe intelligent behaviour can be taught and learned. It is important that when students are confronted with a problem, they know how to go about solving it. They use Habits of Mind to support learning in all curriculum areas.

They teach 'Philosophy for Children' as a school-wide programme. It encourages children to think for themselves while encouraging them to think with others. It is based upon asking deep questions, and developing a thinking culture within the school. Chess and other activities such as Maths Olympics support the intellectual rigour of their curriculum .

Chevallum believe strongly in children working together and learning from each other, using reflective listening and asking "Who can I go to for help?" Multiple Intelligences make children aware of their own strengths and the strengths of others, so they know who to go to for help.

Classes are called family groups and may contain children within a 3-4 year range. They believe that this increases the teaching and learning between students, and the teacher does not have to cope with children all the same age that have similar demands. They see value in a teacher having the same child for a number of years – getting to know them and their family well.

Each school we visited was unique in their identity, and what they perceived as important in education, and therefore had different approaches to teaching and learning. Chevallum demonstrated a great example of effective pedagogy, resulting in motivated kids, achieving well and enjoying the journey of learning.

Visit to Singapore

The Canadian International School in Singapore is developing two ideas that I was particularly interested in. I met with the Curriculum Leader of the Elementary School and the Middle School to discuss and look at their work on:

Trans-disciplinary Curriculum

Learner Profile (this work directly mirrors the NZ work on Key Competencies)

Key Findings

The Canadian International School is made of 4 schools from pre-school through to senior high school. The curriculum is based upon the International Baccalaureate Programme which has many identical features to the new basics of Queensland and the recently published New Zealand Curriculum.

The Primary Years Programme (PYP)

Eight broad concepts act as the powerful ideas to drive the Units of Inquiry.

FORM	<i>What is it like?</i>
FUNCTION	<i>How does it work?</i>
CAUSATION	<i>Why is it like it is?</i>
CHANGE	<i>How is it changing?</i>
CONNECTION	<i>How is it connected to other things?</i>
PERSPECTIVE	<i>What are the points of view?</i>
RESPONSIBILITY	<i>What are our responsibilities?</i>
REFLECTION	<i>How do we know?</i>

Knowledge: "What do we want the students to know about?"

At each grade level, students explore knowledge which is of genuine importance in understanding the human condition and has significance for all students of all cultures. The topics studied are engaging and challenging, and have the potential to actively involve students in their own learning.

Who We Are
Where We Are in Time & Place
How We Express Ourselves
How the World Works
How We Organize Ourselves
How We Share the Planet

Skills: "What do we want students to be able to do?"

There are five sets of skills which are the focus across the disciplines in the PYP:

- Thinking Skills
- Communication Skills
- Social Skills
- Research Skills
- Self-Management Skills

Attitudes: "What do we want students to value?"

The Primary Years Programme encourages a set of attitudes in students including:

- Tolerance
- Respect
- Integrity
- Independence
- Enthusiasm
- Empathy
- Curiosity
- Creativity
- Co-operation
- Confidence
- Commitment
- Appreciation

Action: "How do we want students to act?"

Enabling students to take action is an important aspect of the PYP. Students are taught to reflect, choose and act responsibly with their friends and in the community.

Learner Profile

An internationally-minded person demonstrates the attributes of the Learner Profile. Their goal is to develop the kind of person they are proud to send out into the world - one who will help to create a more just, peaceful and ecologically sustainable future.

Students are:

Inquirers

Students are curious about the world. They can conduct research independently. They love learning and discovering new things and will carry this love of learning with them throughout life.

Thinkers

Students can solve problems and make good decisions. They think creatively and critically.

Communicators

Students are able to think and communicate in more than one language. They can also communicate using the language symbols of different disciplines such as Science and Mathematics.

Risk-Takers

Students have the daring to try new things. They try to solve problems in a lot of ways. They are brave and tell people what they think is right.

Knowledgeable

Students have explored relevant and significant concepts at school and can remember what they have learned. They can draw on this knowledge and apply it in new situations.

Principled

Students have ethical principles. They have a sense of fairness and are honest with themselves and with others. They have an understanding of moral reasoning.

Caring

Students are caring people. They want people around them to be happy and are sensitive to their needs.

Open-Minded

Students know that all people are different and may do different things. They listen to other points of view and consider many possibilities before making a decision. They celebrate the differences in the world.

Balanced

Students are healthy and are aware that eating properly and exercising is important in their lives. They understand that it is important to have a balance between the physical and mental aspects of their bodies.

Reflective

Students know their strengths and know where they can improve. They try to think about these things, and they make changes where they can.

Units of Inquiry

Research shows that children learn best through structured, purposeful inquiry. In the Primary Years Programme students engage in large, transdisciplinary topics of study organised as Units of Inquiry (UOI). With each UOI, the classroom becomes a centre of structured inquiry through which students acquire skills and build new knowledge. These units are outlined in their school-wide Programme of Inquiry (POI) and are carefully designed to build from one year to the next as students progress through the school.

Each Unit of Inquiry:

Is a significant, relevant and challenging learning experience.

Involves students in a range of learning activities.

Requires students to engage in positive action.

Integrates diverse subject areas whenever meaningful and appropriate.

Inquiry Units are based on a 'backward by design' approach where the teachers identify a Learner Profile attribute (like our Key Competencies) in the plan. The teachers use the identified Attitudes to develop the Learner Profile. They are not taught specifically in isolation.

The Learner Profile attribute is embedded where it naturally fits. There is no formal assessment of it - a concept we plan to follow with the Key Competencies. The students reflect on these attributes and can explain what they can do for each one.

At the end of each Trans-disciplinary Unit a summative assessment task requires children to show what they would do or to demonstrate how they have understood the ideas. This

is similar to the Rich Task where children produce an explicit quality project, product or performance that clearly displays their deep knowledge, deep understanding, academic engagement and higher order thinking.

An addition to their programme is the 'Open Minds' Unit of Enquiry. One unit each year is an enquiry unit based upon real study in the field. For example, a study of the rainforest and why it is important to Singapore. This 'Open Minds' unit lends itself very nicely to social action on the part of the learners.

The PYP programme culminates every 3 years with a PYP Exhibition. After three years work the students prepare presentation booklets in groups and the classroom is set for presentation to the community. There is no formal oral presentation but students talk to visitors about their work. This concept is very similar to the Queensland Rich Task presentation.

Implications and Conclusion

The visit to Queensland helped us to see the difference between schools teaching Rich Tasks and schools delivering a more traditional curriculum. We also saw first hand the negative and destructive effects of national testing.

The visit to Chevallum School was the highlight and we returned from that school convinced that despite changes of Government, changes of curriculum requirements and national testing, we could continue successfully with our Rich Task programme. It lends itself so neatly to the New Zealand curriculum and an inquiry approach. We saw that we can continue to be innovative and passionate about what we teach and let national testing (national standards) remain a minor irritation that does not distract us from the real task of teaching.

We learnt more about how to ensure the 'richness' in the unit of study. It is ensuring the richness that we have picked up on, and it has transformed our planning approach. The '5 whys' helps to ensure we get to the important matters in planning. Each time we decide upon a topic we ask, 'so why is that important?' Repeating that 5 times gets down to whether it is important or trivial. Teachers clarify the 'deep understandings' they want to achieve and write some 'significant questions'.

Winchester School has now developed a blueprint for planning to ensure we maintain the richness over the years to come. This has happened because of our visit to Queensland and with the help of Hanan Harrison, our Queensland facilitator.

The visit to Singapore showed a trans-disciplinary Unit being delivered in a similar way to the Queensland idea. Their use of 6 main themes appeals to me and we are planning to develop a similar model to guide our units of study.

Who We Are

Where We Are in Time & Place

How We Express Ourselves

How the World Works
How We Organize Ourselves
How We Share the Planet

The similarities between the Singaporean International Baccalaureate Programme and the Queensland New Basics is interesting. You could imagine that the same people wrote both programmes. There are also some amazing similarities to the New Zealand Curriculum.

I was particularly interested in their approach to developing the Learner Profile (similar ideas to our Key Competencies). They develop them through their identified Attitudes using a ‘backward by design’ approach. We have begun to develop our Key Competencies using the same idea of identifying the Attitudes and Values of Winchester School. By ensuring deliberate use of these Values, we are inherently developing the Key Competencies. This eliminates the need to both identify them as teaching objectives and the need to specifically assess them.

I am also keen to develop their idea of an ‘Open Minds’ Unit that involves students in investigating a local issue and that culminates in social action.

This Sabbatical provided me with a unique opportunity to visit both Queensland and Singapore, to see curriculum implementation that is not too different to our own. I have returned with some clear thoughts about what will enhance our work at Winchester School. I have also returned refreshed and very appreciative of the opportunity to have a break.

References

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