

Te kete arotohu: Seeing signs of synthesis

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The synthesising of Māori and Western knowledge and values has historically been a contentious relationship. Equality within this marriage has not been visible or practiced. Equalising Māori and Western-centric epistemologies requires education to be approached socially and not politically, therefore valuing both parties as equals and building foundations not on power or differences, but rather, identifying commonalities and a common purpose. The result of this collaboration could result in construction of a bi-world view, and bi-world view knowledge that is unique and distinctly Aotearoa New Zealand. Unfortunately, this reality is not commonplace practice in tertiary educational institutes.

This paper looks at the process of constructing of two learning tools, the Ako Wheel and the development of an entrepreneurial game, *Mana Millionaire*® and how two culturally different epistemologies supported their creation. The creation of learning tools to support a bi-world was greatly assisted through culturally attuned metaphors and symbols. This could be attributed to many Māori models reflecting elements of the natural world around us and cultural narratives. Symbols and metaphors that are derived from the natural world open the opportunity for the knowledge to be applied across cultures, and is where commonalities may initially be recognised. At the initial stages of construction, world view, context and language should not be barriers to discovery and play that leads to creation. In an exploration of te ao Māori (Māori world view), symbols and metaphors are identified that are associated with social development and structure and, education. Some Māori metaphors, narratives, mōteatea (lament, traditionally chant), whakatauki (proverbs) and toi (art and design) will be integrated throughout this paper revealing the knowledge embedded within cultural modes of knowledge transmission. The creative journey reveals the knowledge encapsulated within and recognises the powerful teaching nature of symbolism. Toi, in particular, offers a key to unlock the door of understanding process or development, to engage in te ao Māori.

The first learning tool is the Ako Wheel. The purpose in creating this tool was to assist lecturers and students to embed Māori concepts, practices and knowledge into tertiary curricula. The Ako Wheel recognises Māori models indicating how students' learning mimics society. This imitation of the real world provides students to experience a scaffolded learning approach to mastering

required skills, values and dispositions. The mimicry also forms the foundation of ako, which is the reciprocal practice of teaching and learning, and where the teacher is simultaneously the master and the student and vice versa.

The Ako Wheel provides a way in which mātauranga Māori (Māori knowledge) could be included into current mainstream tertiary curricula by acknowledging and respecting Māori cultural capital. This cultural capital develops a unique Aotearoa New Zealand identity, providing all students with strong foundations in which they can represent Aotearoa New Zealand honestly in the current globalising world.

To capitalise upon this phenomenon, tertiary education and the curriculum needs to mimic its socio-cultural and economic context, starting from the local, through to national then to international. Within Aotearoa New Zealand the curriculum needs to include the Māori world view and acknowledge the role and knowledge of whānau (family), hapū (extended family or sub-tribe), and iwi (tribe). The recognition of mātauranga Māori and te ao Māori honours the binding marriage contract between The Crown, which is currently represented by the government and Māori which is heralded by Te Tiriti o Waitangi (The Treaty of Waitangi).

The following section outlines some of the knowledge within te ao Māori and demonstrates how knowledge has been infused into narratives, mōteatea and whakatauki for ease of transmission and longevity. Mātauranga Māori and its forms of transmission should be acknowledged and included in the current tertiary curriculum, and was behind the development of the learning tool, the Ako Wheel. The development of the Ako Wheel allowed an overarching understanding of the interplay between te ao Māori and Western world view.

In the beginning there was no sky, no sea, no earth and no Gods. There was only darkness, only Te Kore, the Nothingness. The very beginning was made from nothing. From this nothingness, the primal parents of the Māori came, Papatuanuku, the Earth mother, and Ranginui, the Sky father. Papatuanuku and Ranginui came together, embracing in the darkness, and had 70 male children. These offspring became the gods of the Māori. However, the children of Papatuanuku and Ranginui were locked in their parents' embrace, in eternal darkness, and yearned to see some light. They eventually decided that their parents should be separated, and had a meeting to decide what should be done... Lastly Tane-Mahuta [God of forests, the lands and the inhabitants] rose. Strong as the kauri tree, he placed his shoulders against his mother Papatuanuku and his feet against his father Ranginui, and he pushed hard, for a very long time, straining and heaving all the while. Rangi and Papa cried in pain, asking their sons 'why do you wish to destroy our love?' After a long time Tane finally managed to separate Rangi and Papa, and for the first time the children saw the light of day (ao Mārama) come streaming in (history-nz, n.d.).



Figure 1. Takarangi motif (Source: recoloured from Kumeroa)

In te ao Māori this creation narrative is graphically depicted in the takarangi motif (Figure 1). It symbolically acknowledges the loving embrace of Ranginui (Sky father) and Papatūānuku (Earth Mother). However, as Tane pushed his parents apart, creating te ao Mārama (the world of light), the two koru (spiral) formed two vortices. Papatūānuku transformed to Te Kauae Raro (things terrestrial, te kete aronui, te kete arotohu) and Ranginui became Te Kauae Runga (things celestial, te kete tua atea, te kete tuauri, quantum physics) (Lambert as cited in Edwards, 2009; Chopra, 1989). To maintain the separation Tane erected pou-tiri-ao (standing guardians) (Whatahoro, 1913, p. 133). The pou-tiri-ao are the eternal links and were also conduits of Ranginui and Papatūānuku's love for each other. They manifested as phenomena such as, “āhurutanga [nurturing], kaitiakitanga [guardianship], whanaungatanga (relationships or kinship), manaakitanga (hospitality), ūkaipo (origin, mother), kotahitanga (oneness, unity), rangatiratanga (leadership) and tohungatanga (mastery)(Diamond, 2013). The pushing between Ranginui and Papatūānuku and, the pou-tiri-ao create the dynamic space and balancing forces that engages and constantly drives the creative process of observe, reflect and make (Dubberly Design Office, 2010), or idea, reflect and evolve (Lambert as cited in Edwards, 2009).

The pou-tiri-ao reflects how cultural values can transpire from the creation narrative. Such phenomena manifest from the reality of Māori experience and have been accepted by the community (Royal, 1998, p. 49). Unpacking a culture's creation narrative can reveal their world view. This narrative contains the ideas that construct the “framework or terms of reference” that

distinguish the culture (Royal, 1998, p. 49). Embedded within the narratives are values, which the community have agreed to be of importance and of value.

... after [Tane] had successfully organised the revolt that led to the separation of their parents Rangi (Father Heaven) and Papa (Mother Earth) having concluded the various purification rites wended his way through the heavens until he arrived at the penultimate heaven. He was again sanctified by Rehua the Priest God of exorcism and purification who then allowed Tane entrance into the twelfth heaven the abode of Io. There he received the three Baskets of Knowledge together with two small stones, one white and the other a predominantly red coloured stone. The former white stone was named Hukatai (Sea foam) and the latter red stone called Rehutai (Sea spray). He descended to the seventh heaven where his brothers had completed the Whare Wānanga (House of Learning or Wisdom). After the welcome, he had to undergo more purification rites to remove the intense ‘tapu’ ingested from his association with the intense sacredness of Io. Having completed the purification rites, Tane entered the Whare Wānanga named Wharekura and deposited the three Baskets of Knowledge named Tauri, Aronui, and Tua-Atea above the ‘taumata’ – the seat of authority where the seers and sages sat and then deposited the stones Hukatai and Rehutai, one on either side of the rear ridge pole (Marsden, 1992, pp. 3-4).

Ngā kete mātauranga, are commonly known amongst people who have engaged in te ao Māori (Figure 2). Te kete aronui that acknowledges the knowledge that is apparently in the physical world. It is the physical manifestations where cause and effect can be deduced (Marsden, 1992). This is classical or Newtonian physics (Chopra, 1989). Te kete tauri is the knowledge held within the creative space before they manifest into the physical world (Diamond, 2013; Marsden, 1992). It is the patterns of energy that occur beyond “the world of sense perception and the realm of the tohunga. It includes the knowledge of *karakia*” (Moorefield, 2013). In scientific terms this may be seen as the space of quantum physics, of unlimited potential and possibilities (Chopra, 1989; Preparata, 2002). Third is, te kete tua atea refers to the knowledge “where context holds no ground” (Diamond, 2013). It is “infinite and eternal”, precedes te kete tauri and envelopes both te kete tauri and te kete aronui (Marsden, 1992, p.p. 10-12). The knowledge of te kete tua atea is the heightened reality in which the “universal process” strives to obtain. Finally, Marsden (1992) offers a fourth kete, a basket of signs, “te kete arotohu” (Diamond, 2013, p. 8). This is the creation of language that enabled the transmission of knowledge (Marsden, 1992). The effectiveness of the language is dependent on a community’s validation and acceptance of the created language (Diamond, 2013), as it would need to be in context and relevant to the community’s shared reality and world view. Because knowledge was gifted from ngā atua, it was deemed tapu (sacred) and was to be respected. Therefore, the transmission of knowledge was allocated to those who proved themselves worthy and appropriate to be the holders and guardians of knowledge.



Figure 2: Nga kete mātauranga

The wharenui (meeting house) epitomises te ao Mārama. It encompasses within it the knowledge of the hapū, iwi and te ao Māori. The space and kōwhaiwahi (scroll painting) of the tāhuhu (ridgepole) and ngā heke iho (rafters) is the knowledge held within te ao atua (realm of the gods), Ranginui, Kete tuauri, Kete tua atea and Kauae Runga. Within the space of the walls, ngā pou (carved posts) and ngā tukutuku (lattice panels) lays the knowledge of te ao tāngata (realm of humankind), Papatūānuku, Kete aronui, Kete arotohu and Kauae Raro. The kōwhaiwhai upon the tāhuhu can express the knowledge of Io (supreme being) or the tūpuna depicted in the tekoteko (carved figure) upon the apex of the wharenui gale. The rafters descend knowledge down and connect to ngā pou, which depict prominent tūpuna or kaitiaki (guardians) of the hapū. The adjoining tukutuku panels contextualise the knowledge and narrative to the hapū and rōhe (local environment). Ngā toi within the wharenui are imbued with narratives that enable the transmission of knowledge to be passed on from generation to generation (Personal communication, Chaz Doherty, 2005)(Figure 3).



Figure 3. Hotunui at Auckland War Memorial Museum
(Photo credit to Paul Scot Smith)

The narratives and knowledge held within a wharenuī were developed through lived experience. It is through lived experience that mōhiotanga is developed. Mōhiotanga is the practice of doing. It is the practical knowledge that it is transmitted through being submerged within community where the learning is an intrinsic part of being an active part of the community. In this instance knowledge becomes instinctive knowledge (Fraser, 2009 & Royal, 2004). When the practice of doing has been reflected upon so that theories or facts are developed the knowledge transfers to mātauranga. Mātauranga is the knowledge that has become an established fact (Royal, 2004). When these two states of knowing are linked one can experience and gain māramatanga (enlightenment and understanding). “It is often punctuated by the sensation of ‘A-HA’” (Diamond, 2003, p. 9) and can evoke a sense of freedom. This process can be depicted in an upward-outward spiral or the koru, again where the process starts at the centre (Figure 4).

From values expressed in the creation narrative, the community developed practices and ideologies that they collectively deemed important. These practices and ideologies maintain their cultural traditions, values and world view, they form an ecology from which Māori can evolve



Figure 4. Māori stages of knowing

without losing their identity (Marsden, 1992, and Royal, 1998). Recognising Māori creation narratives and the practices and ideologies in the development of the Ako Wheel and the making of a tertiary curriculum, reflects and acknowledges the relevance and value mātauranga Māori has in developing bi-world view knowledge and providing students with a cultural distinction in the globalising world.

Rangihau and Pere offer blueprints of Māori socio-cultural ecology of traditions and ideology. Rangihau's ideological model (Figure 5) provides a contemporary Aotearoa New Zealand, macro-social view of Māori traditions. That is, Māori-centred where Pākehātanga (Western Industrialism) influences from the perimeters. On the other hand, Pere's, Te Aorangi model (Figure 6) is a micro-view reflecting the student's sites of engagement and learning. Analysing these two models show, that in general, student's learning experiences reflect socio-cultured determined structures, practices and concepts. Both models are divided into three nested divisions. The first recognises the value of aroha (love), and the second and third have connecting practices that denote the level of engagement within the social structure and the student's learning. A student engaged in learning within a socio-cultural environment demonstrates the phenomenon, ako.

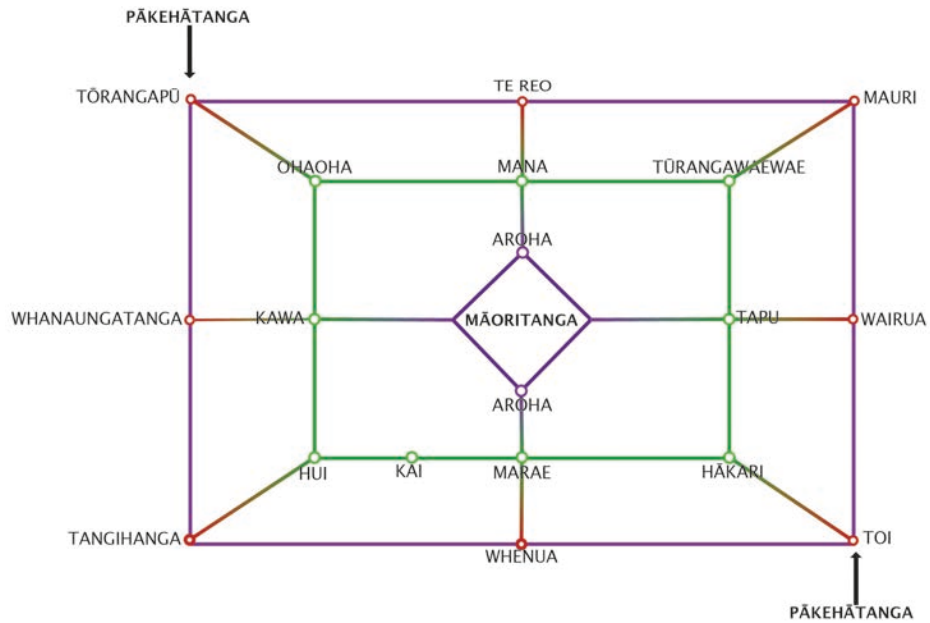


Figure 5. Rangihau's ideological model
(Source: Ka'ai & Higgins, 2004, p. 16)

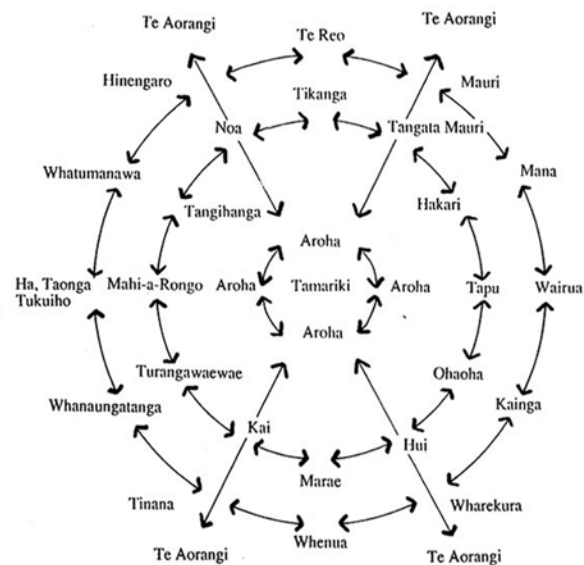


Figure 6. Pere's Te Aorangi model
(Source: Pere, 1997, p. 5)

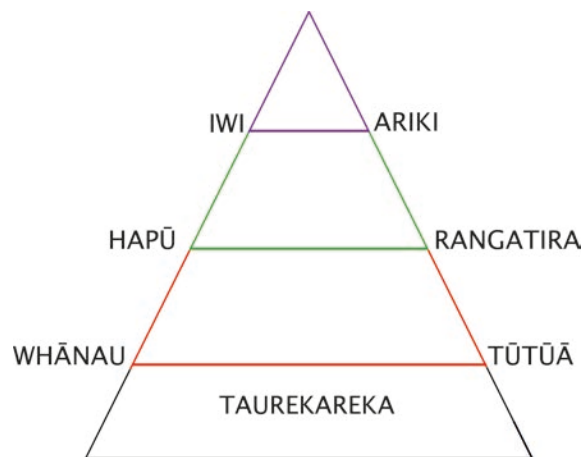


Figure 7. Māori social structure
(Source: Ka'ai & Higgins', 2004, p.

Māori social structure is formed through whakapapa and kinship. Ka'ai and Higgins (2004) illustrated this and its hierarchy in their tiered model of Māori social structure (Figure 7).

Whānau members are the basis of Māori society, hapū form the collective of extended whānau and is led by a Rangatira (Chief) who was often of noble blood and in some cases, those who proved themselves worthy to lead. The highest escher of Māori society is the iwi that was lead traditionally by an Ariki (Paramount Chief). Within the whānau and hapū environment, children learnt everyday task and skills. They played games and mimicked their parents and elders until they became adept enough to do the task alone (Firth, 2012, Hemara, 2000).

Integrating Māori ideology and Te Aorangi models with Māori social hierarchy, is where the poutama becomes evident (Figure 8). Te Aorangi is experienced at each level of society and as the student's level of engagement increases from whānau to hapū to iwi (Figure 9), their learning of cultural concepts, ideologies and practices become more involved and in-depth and, the student becomes an active citizen within the greater communities.

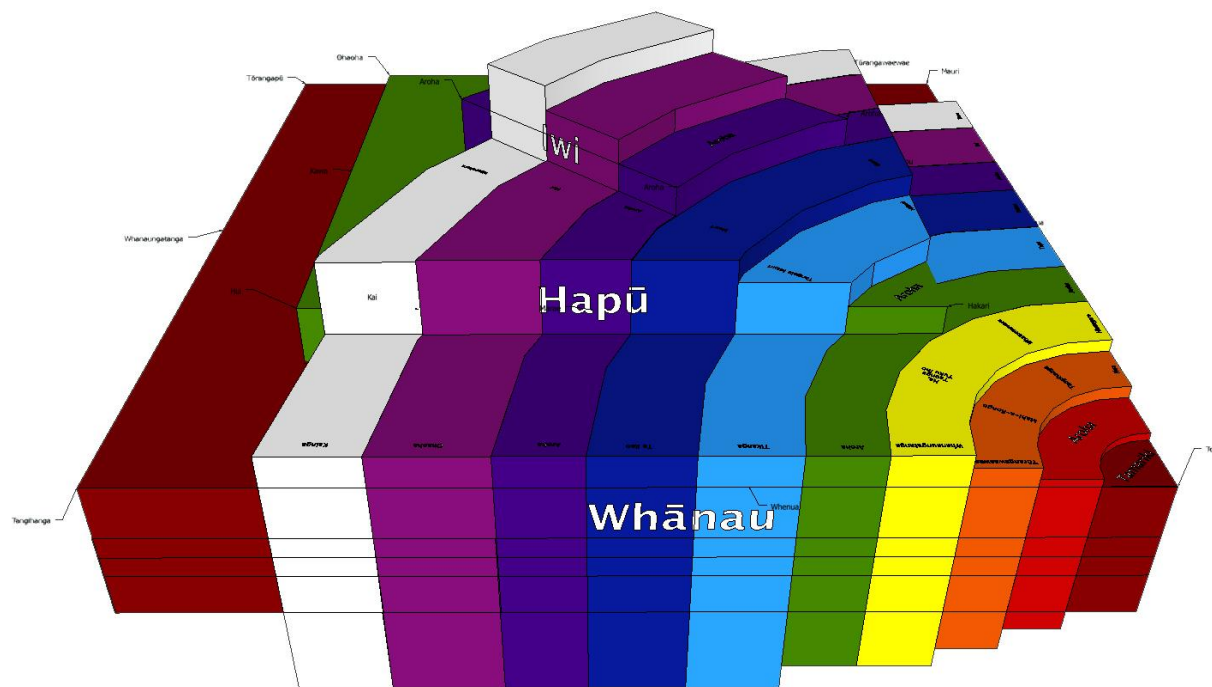


Figure 8. Māori Ako model

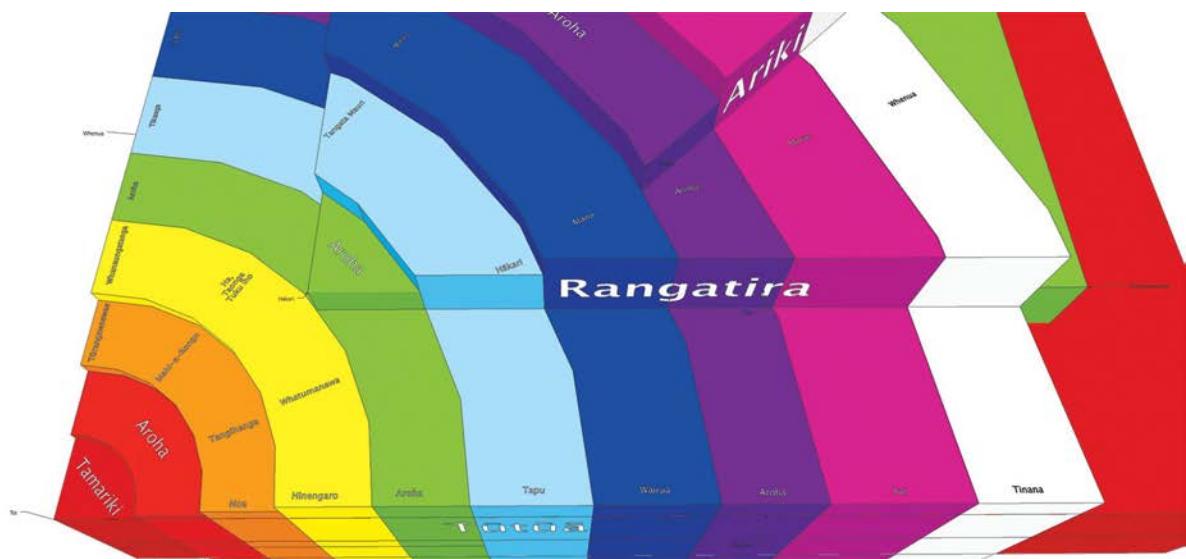


Figure 9. Student's learning in community

Symbols that have been unpacked so far from te ao Māori are; the takarangi depicting creation, the nested baskets of knowledge, the koru or spiral of evolving knowing, webbed concentric-circle and -squares of cultural ideologies, the poutama to heaven, and the wharenui as a repository of knowledge. Unpacking the symbols used in te ao Māori has revealed the mātauranga Māori captured within their simplicity providing a better understanding of te ao Maori world view. From these visual cue, models from Western knowledge, that use similar visuals can be deciphered to find similarities and differences between te ao Māori Western theories and world view. In establishing similarities and differences the Ako Wheel was developed equalling acknowledging, respecting and value the knowledge and values from both world views. In the development of the Ako Wheel it is hoped that it may be adopted in the development of tertiary programmes and included in the tertiary education content to make the tertiary learning experience better and more distinct to Aotearoa New Zealand. The next stage of the paper will establish commonly used theories and models from the Western world view that can align to Māori models and concepts of creation, social structure and development already discussed.

The first commonality is found in scientific imagery. Science is at the foundations of Western world view and Industrialism therefore, in looking through a scientific world view, creation can be depicted by the double helix of Deoxyribonucleic acid (DNA). “DNA is sometimes called ‘the blueprint of life’ because it contains the code, or instructions for building organism and ensuring that organism functions correctly” (biologycorner.com). The visual commonality is not immediately recognisable until the DNA strand is viewed topographically (Figure 10). The baskets of knowledge and concentric circles could be visually replicated in the parts of an atom, the rings of a tree, Earth’s atmospheric layers or our solar system. The koru is again in nature and the unravelling of life and is often used to illustrate the creative process of observe, reflect and make.

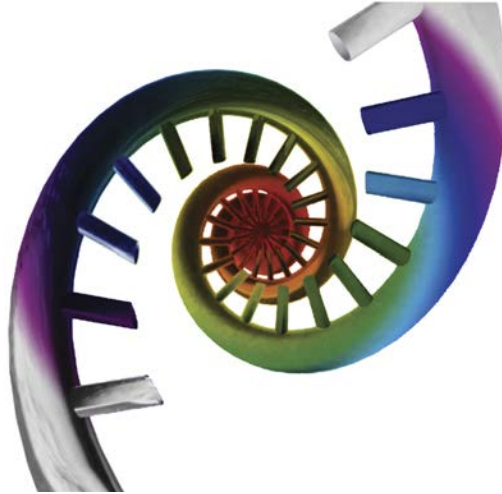


Figure 10. Aerial view of DNA strand

(Source: Recoloured from Spooky Pooka, Wellcome Images)

When investigating theories that hold similarities to socio-cultural development Vygotsky and Bronfenbrenner offer theories and models that can align to the poutama, Māori ideologies and, Te Aorangi. Vygotsky's (1978) scaffolding share commonalities with Māori social responsibility and engagement to child development. Whereas, his zone of proximal development (Figure 11) illustrates student's ascension as they progress their learning and understanding. Vygotsky also highlights the balance between the student's prior skill and knowledge level with the challenge of the task. A challenge that surpasses the student's skills and knowledge and who is not adequately supported can transcend into states of anxiety or if the task does not extend their skills and knowledge the student can descend into boredom. Either state can be counter-productive.

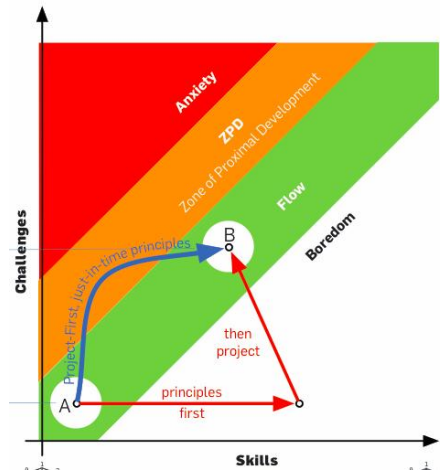


Figure 11. Zone of proximal development

(Source: Falkner, 2012)

Bronfenbrenner's ecology of development (Figure 12) recognises social agents of influences on a student or child's development. Bronfenbrenner (1979) agents of influence as, microsystem, mesosystem, exosystem and macrosystem (p.p. 7-29). Whānau, hapū, iwi and te ao Māori could respectively be examples of these systems. From the Western world view and social structure the hierarchy of these systems could agents such as family, peers, neighbourhood, school and church (microsystem and macrosystem), local and regional government services and community groups and businesses (exosystem) and, national and international political and economic agents (macrosystem).

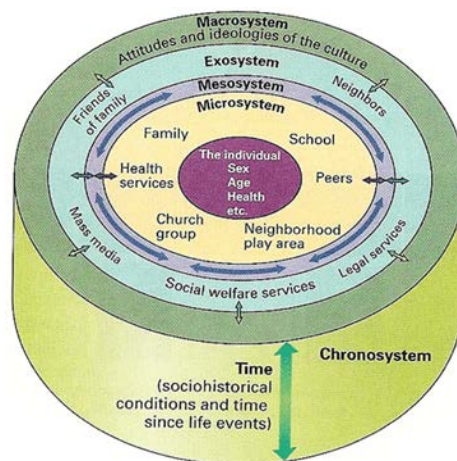


Figure 12. Ecological development model

(Source: Santrock, 2007, p. 49)

It is in comparing Western socio-cultural structure that uniqueness between the world views begin to appear. A few of those being, Māori world view has constant lines of linkage through lineage whereas, Western culture is linked through location or association through common interest. The origin, development, transmission and, storage of knowledge can also differ. Recalling that the origin for mātauranga Māori came from the heavens, passed onto students and through mnemonic devices such as toi (arts), waiata (song), mōteatea (chants), karakia (incantations) and, tākarō (games). In the Western world, science and the written world were held supreme. Knowledge is held in books stored within libraries and as technology progresses the libraries are being uploaded to the metaphorical storage system, ‘the cloud’.

However, it is from the commonalities in which this paper focuses to enable the construction of a bi-world view model, Te Mauri Pakeaka (Figure 13 see overleaf) and encourage the use of the Ako Wheel in developing curriculum (Figure 14). Identifying overarching social development commonalities can give way to possible commonalities found in concepts within disciplines and subjects taught.

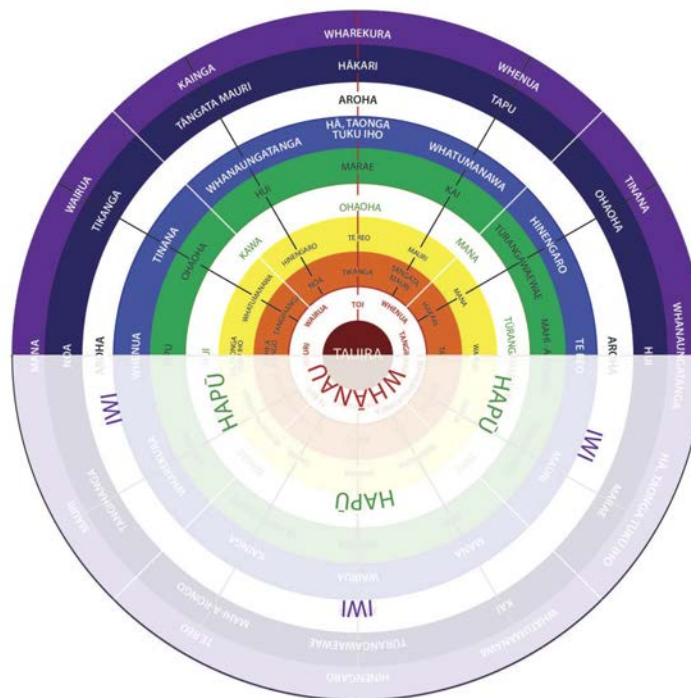


Figure 14. Ako wheel

The context rings are denoted by the ideologies outlined by Rangihau. These are the experiences, tasks or challenges presented from the community. The coloured rings denote the concepts from Pere and offer a way how a student may approach or further investigate the task or challenge. The context of the initial Ako model and wheel is situated within te ao Māori, whānau, hapū and, iwi (white rings). However, to establish the model in Aotearoa New Zealand higher education curriculum, similarities between Western world view and te ao Māori need to be investigated. It is here signs of synergy can assist in constructing a bi-world view.

Each ring can rotate as the student determines their learning focus. The line of 12 o'clock is the pathway of learning. As the student determines this pathway of learning they must choose a concept from each of the rings and rotate the concept to 12 o'clock; thus revealing their pathway of learning. For example, a student interested in toi would rotate the central white ring (whānau ring) placing toi at 12 o'clock. The orange ring asks the student to identify the aspect that will drive their art practice. For example, tikanga or tangata mauri. Again the concept must be rotated to 12 o'clock. This process is repeated throughout all the rings revealing the pathway of learning (Diamond, 2013, p.p. 37-38).

It is hoped that the use of the Ako Wheel encourages Māori educators and students to bring culturally-grounded knowledge into the formal learning environment and provides non-Māori educators and students an entry point to engage te ao Māori and compass to navigate the practices, concepts, ideologies and knowledge of te ao Māori.

The symbols that could be overlayed were those that were cyclic or concentric and those that ascended. Recognising common symbols and an understanding that process, and therefore time, is cyclic rather than linear suggests that world views can be looking at the same thing just from differing angles. Changing perspective helped solve a dilemma faced by Te Manawa¹ as they looked to integrate te ao Māori into teaching entrepreneurship.

The second learning tool, *Mana Millionaire*® board game is a venture conceived by Te Manawa. Their desire was to better integrate te ao Māori into the practice of entrepreneurship or specifically “linking Māori creativity with systematic innovation” (eCentre, 2013). Te Manawa seek to design a programme that:

¹ Te Manawa is a joint venture between, e-Centre and Awataha with later collaborations involving Dr. Claire McGowan for her expertise with iwi and Māori business and Piki Diamond from AUT's Centre for Learning & Teaching providing pedagogical guidance in blending two world views.

- Provide young Māori with the tools and knowledge to develop businesses and/or to understand the business development process.
- Introduce Māori, and non Māori, to the concept of *pakeaka* - the merging of cultures as a point of difference for NZ entrepreneurs.
- In the longer term develop a Māori innovation hub at AWATAHA Marae (eCentre, 2013).

Te Manawa had established a similarity in the process undergone when establishing a new business that is portrayed in the Lean canvas model (Figure 15) and stage of Māori creativity. The Lean canvas model is a matrix that acknowledges the interrelationship between the product and the market.



Figure 15. Lean canvas (Source: Maurya, 2013)

From te ao Māori, the stages of Māori creation were identified as, te kore (the nothingness), te pō (the night), te whai ao (daybreak) and, te ao mārama (the world of light). Te Manawa recontextualised these stages from the Māori creation narrative to the creation of a business and aligned them with the stages of Lean canvas (Figure 16).

TE KORE	TE PŌ	TE WHAI AO	TE AO MĀRAMA
Chao and unlimited potential. Contemplation	The seed of an idea	Ideas being shaped. Prototyping	Model developed and launched with a karakia (blessing)
Lean Canvas 1-2	Lean canvas 2, 3,4	Lean canvas 3,4,5	Lean canvas 1-7

Figure 16. Māori creativity and the Lean canvas model

Source: eCentre 2013

The visual representation of the models and their described process were from a linear perspective. However, to blend these two models more effectively it was posed that the models be redesigned to replicate Māori cyclic notion of time and that the model be converted from a gridded rectangle to the takarangi. This required the Lean canvas to be rearranged and turned inside-out (Figure 17) and the Māori creative process to be return to its original cyclic state growing out from the centre.

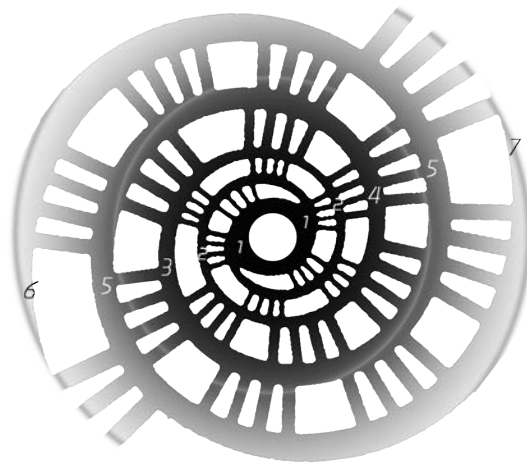


Figure 17. Lean canvas in takarangi

The progression of this model into a learning game came when Te Manawa identified the social and cultural value this model may have for Māori. The first was the need for a change of attitude toward money. Money is not power or evil, it is a resource that Māori need to learn how to

harvest and grow, just as we do the resources of the land and the sea. And the second value was understanding that change came not from teaching one whānau member the process of business but by making it a social norm within the whānau, therefore, educating the entire whānau.

Looking at traditional Māori pedagogies it was established that games were an effective strategy to introducing students to a new paradigm and skills. The games mimicked the real situation (Hemara, 2000). The model sort to do this of entrepreneurship, and the board game was chosen so that it may encourage the entire whānau to play at home. It was decided that there would be variations of the game, the whānau version (gaming for entertainment) and the business development version (gaming for learning). The latter would use the Lean business canvas where players would have to fill out each section as they played the game. Ideally, the development version would be introduced at business or financial literacy workshops that will provide additional knowledge and support.

To further merge business and te ao Māori and to establish a point system for the game, the team looked at the differing measurements of success and prosperity. In business these values are measured in monetary accumulation. In te ao Māori, traditionally these values were measured by one's mana. Within a Māori community people with substantial mana became Rangatira, leaders. It is here that the metaphors and whakatauki were discovered as teaching strategies to portray the values required of different types of leaders.

There is the sheltering rata tree,

Taku ate hoki ra, taku rata tutahi, taku whakamarumarū, taku whare kii tonu, taku tiketike ka riro, unuhia noatia te taniwha i te rua.

You were my heart, my solitary rata tree, my sheltering place, my house of plenty, my elevated one now departed, withdrawn now is the dragon from its lair.

The totara tree standing tall in the forest.

Ka ngaro ra, e nga totara whakahae o te wao!

Gone alas are the cherished totara trees of the forest.

The rock dashed by the waves of the sea.

Korero i o tohu, te kura takai puni,

Te toka tu moana, i te tukutahi whakarere;

Speak about your accomplishments, is it to be the onward charge,

The rock that stands in the ocean, against a tumultuous headlong rush;

And finally, the waka (canoe).

The loss of a leader is likened to a canoe floating unevenly, or leaning dangerously to one side. Or it is said that canoe is cast upon the beach as its work is done. It may be upended to emphasise the point. There are instances where the leaders' canoe becomes his memorial. The canoe is cut in half and inserted into the ground near the grave as a reminder to everyone that the tribe has lost a valuable leader (Mead, Steven, Third, Jackson and Pfeifer, 2006).

Mead et.al. (2006) identify how the qualities and values of a leader may have been relative in a pre-colonial context and then evolved these values to the Pūmanawa model for today. They also compared these qualities to the GLOBE leadership model (see Table 1), that “attempts to develop a truly international theory of leadership, measuring culture (along nine dimensions) and its impact on leadership (which is measured along with six major dimensions and 21 sub-scales)” (Mead et. al., 2006) (Figure 19).

Table 1. Comparison between the Pūmanawa model and the GLOBE model

	The Pūmanawa model	The GLOBE model
1	Manage, mediate and settle disputes to uphold unity of the group	Diplomatic: Win/win problem solver and mediator. Collaborative team orientation: Group-orientated, collaborative, consultative and mediator
2	Ensure every member of the group is provided base needs and ensures their growth	
3	Bravery and courage to uphold the rights of hapu and iwi	
4	Leading the community forward, improving its economic base and its mana	Visionary: Foresight, future orientation, prepared, anticipatory, plans ahead, able to anticipate
5	Need for a wider vision and a more general education than is required for every day matters	Visionary: Foresight, future orientation, prepared, anticipatory, plans ahead, able to anticipate

6	Hospitality	Humane orientation: Generous
7	Led and successfully complete community projects	Administratively competent
8	Know the traditions and culture of their people, and the wider community	Team integrator: Informed

(Source: Mead et.al., 2006, p. 16)

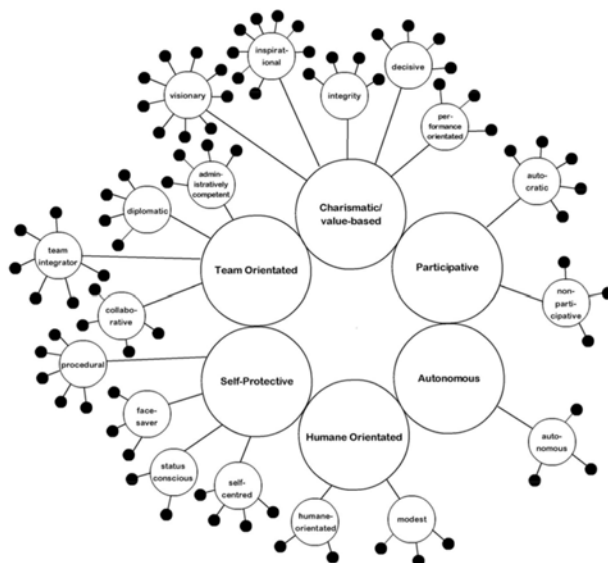


Figure 19. The GLOBE leadership model

(Source: Mead et.al., 2006, p. 15)

The pūmanawa (talents) were the basis of the ten mana cards that are the multipliers of money that determines the winner of the game. As well as mana cards there is the collection and loss of money and disruptions from taniwha (mythical beings of precaution) or chance cards.

Mead et. al. (2006) alignment of leadership qualities further acknowledges that similarities can be made between te ao Māori and Western concepts and theories, and that it is world views, developed through beliefs and experiences and context that shape our understanding.

The creation of the Ako Wheel and the *Mana Millionaire*® board game was greatly assisted by visual cues within models and the theories found through Western academia and research and, Māori modes of knowledge transference such as, whakatauki, mōteatea, toi and narratives. To endeavour to construct a bi-world view or knowledge one must be open-minded and be prepared to view reality from a different perspective – be it elevated or aerial, linear or cyclic, or upside-down and inside-out. As with all creating processes, one must approach the constructing of new knowledge with playful curiosity, a willingness to make successful mistakes and above have to be respectful of the origins of the knowledge that are the materials in which to create with.

It is not the intention of this paper to advocate that lecturers solely develop games, models, toi, narratives, songs and poems to use as learning tools, but rather, pose such activities to students. Include the development of learning tools into students' assessments. This encourages the evolution of knowledge as perceived by the youth and informed by their tūpuna (forbearers).

Glossary

āhurutanga	nurturing
ako	reciprocal nature of learning and teaching
ariki	paramount chief
aroha	unconditional love
hapū	extended family, sub-tribe
Io	supreme being
iwi	tribe
kaitiaki	guardian
kaitiakitanga	guardianship
koru	spiral
kotahitanga	oneness or unity
kōwhaiwhai	scroll painting
manaakitangi	hospitality
māramatanga	enlightenment and understanding
mātauranga	factual knowledge
mātauranga Māori	Māori knowledge
mōhiotanga	knowledge learnt through doing
mōteatea	lament, traditional chant
ngā heke iho	rafters
Ngā kete mātauranga	Baskets of knowledge
ngā pou	carved posts
ngā tukutuku	lattice panels
Pākehātanga	Western Industrialism
Papatūānuku (Papa)	Earth Mother
pou-tiri-ao	standing guardians
rangatira	chief
rangatiratanga	leadership
Ranginui (Rangi)	Sky Father
rōhe	local environment
tāhuhu	ridgepole

takarangi	double spiral motif
Tane-Mahuta (Tane)	Son of Rangi and Papa
te ao atua	realm of the gods
te ao Māori	Māori world view
te ao Mārama	the world of light
Te Kauae Raro	things terrestrial
Te Kauae Runga	things celestial
Te kete aronui	Knowledge of the physical world
Te kete arotohu	Knowledge within symbols
Te kete tua atea	Knowledge not defined by time or space
Te kete tauri	Knowledge held in the space of potential
Te Tiriti o Waitangi	The Treaty of Waitangi
tekoteko	carved figure
tohungatanga	mastery
toi	art and design
ūkaipo	origin or mother
whakatauki	proverb
whānau	family
whanaungatanga	relationships or kinship
wharehenui	meeting house

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