

Play Based Learning - A Change in the State of Play!

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Purpose

An inquiry into the effectiveness of play based learning and how best to implement this into school.

Acknowledgements

This sabbatical has come at a very appropriate time in my career. I have often said to people that I started school at the age of 5 and I am still here at the age of 50! It is time to reflect on where I have come from and where I am going to. This sabbatical has given me a chance to do just that; review my life, get back on my bike and lose some kgs (maybe a slight lie!) which have become stuck around my middle as well as have a closer look at Play Based Learning (PBL).

I would like to thank TeachNZ, MoE and the Clifton Terrace School Board of Trustees for allowing me this opportunity and the time to reflect.

A special thanks to James Heberd who stepped up into the role of principal during my leave. I hope you enjoyed the experience James!

Thanks also to all those who have gone before me and who I have used in my learning around PBL. These are exciting times and I look forward to sharing this work.

And finally, thanks to schools in the Kahui Ako o Whakatu and others who provided me with information around their own learning pathways. Together our tamariki have the greatest chance of success.

Background regarding my interest in PBL

Some of my best memories as a child are those that stem from the things I did with friends while riding our bikes. We rode for hours up and down the street where we lived, doing tricks on our bikes, jumping over each other and daring each other to go one better! We talked constantly about how clever we were and how we were going to "out do" the other. We constantly broke our bikes doing crazy things and sometimes ourselves. We learned to fix them and learned what our limits were.

Why is this such a great memory? Because it was real. We didn't talk about doing it, we did it. Sometimes we theorised about what we could do and talked about what might happen. However, we always put it to the test and sometimes with amazing results that surprised us and spurred us on to greater things! Sometimes not so much! However, if we were being observed I believe we would have shown increases in communication, confidence, patience, perseverance, calculated risk taking, and resilience among other things.

Children learn through doing. I certainly don't rate those times I sat at a desk whilst at school chanting times tables as a highlight and I'm sure there wouldn't be too many kids who would either. Their highlights would be doing something similar to

"Scientists have recently determined that it takes approximately 400 repetitions to create a new synapse in the brain - unless it is done with play, in which case it takes between 10 and 20 repetitions."

Dr Karyn Purvis

my example above. Therefore, why does there need to be a change in the state of play?

In a Ted Talk by Sir Ken Robinson he asks the question “Do Schools Kill Creativity?” He discusses our current education system and that it has changed very little from that that was devised in the 1900s to meet the demands of the industrial revolution. He argues for an end to our outmoded industrial educational system and proposes a highly personalized, organic approach that draws on today’s unprecedented technological and professional resources to engage all students, develop their love of learning, and enable them to face the real challenges of the twenty-first century. After viewing this Ted Talk, I was challenged about how we transition children to school and what the expectation should be in terms of different aspects of curriculum. In his Ted Talk, Robinson argues that in our schools creativity doesn’t have the same degree of importance as maths and literacy. In fact he suggests that creativity features very low in order of importance. Are our teaching practices which we use everyday contributing to the death of creativity? Is there some way that we can enhance learning by using creativity as a vehicle for quality learning and outcomes?

Anyone who has ever listened to Nathan Wallis would have been intrigued and inspired to learn about the brain. After tuning into how fast he can speak, you find that Nathan has a gift - the gift of sharing the brain and explaining why and when we should do things. I have heard Nathan multiple times and everything I hear makes so much sense. He talks about the first 1000 days. He talks about the 4 quadrants of the brain and how they interrelate. He talks about the importance of learning what is needed when it is needed and that trying to push the learning early in terms of literacy and numeracy is in fact more likely to inhibit learning than help it. And every time he speaks I wonder why no one further up the “education hierarchy” listens!

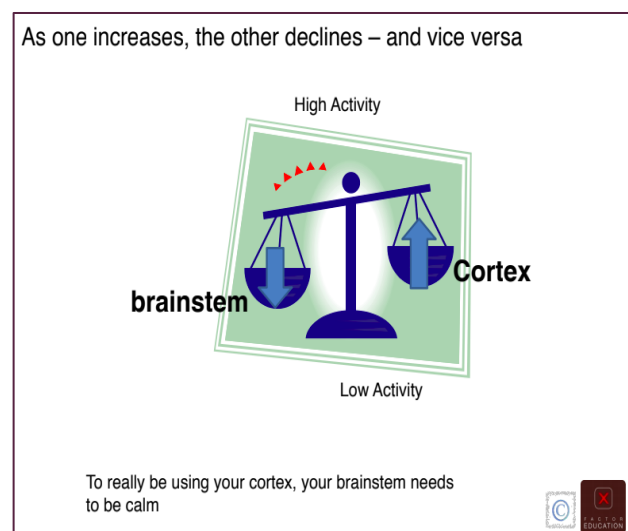
Wallis breaks the brain into 4 parts;

Brain-Stem. This controls your basic body functions ie. breathing, swallowing, heart rate, blood pressure, consciousness etc.

Cerebellum. The cerebellum controls coordination, precision and timing of movements.

Limbic System. This system contains the amygdala, hippocampus, thalamus, hypothalamus, basal ganglia and cingulate gyrus. The amygdala is our emotion centre and the hippocampus plays an essential role in the formation of new memories about past experiences.

Frontal Cortex. The Frontal Cortex is involved in higher functioning such as sensory perception, generation of motor commands, spatial reasoning, conscious thought and in humans, language.



Basically he says that the different brain areas are related. In the diagram above it can be seen that when the brainstem is not overloaded with stress the cortex is available for learning. Therefore, the opposite is

also true. If the brainstem is in a stressed state quality learning is going to be limited. Children who are in a constantly stressed state are unable to take on new things as they are in a constant state of being in fight or flight mode. When we think about tamariki in our classes who come from stressful backgrounds, the last thing they need is more stress. They need to be in a place where stress is at a minimum or even non-existent (if that is possible), things are consistent and that there is care and nurture.

Wallis also talks about the fact that things like National Standards are doomed to failure due to our tamariki lacking readiness. Other research by Dr. David Whitebread also suggests that children are being asked to read and write too early. At about the age of 7 years, the longitudinal fissure in the brain strengthens. This is the part of the brain where the left and right hemispheres of the brain join together. Due to this strengthening, each hemisphere starts to take on a more dominant role which is referred to as the lateralisation of the brain. It is at this time that children will be much more receptive to tasks such as reading, writing and maths.

Wallis also discusses the negative effect of trying to get children to reach cognitive milestones earlier. He suggests that what determines success is the number of protective factors that a child experiences in their life and how they see themselves as a learner by the age of 7 years old. Lacking readiness could well knock their confidence and possibly develop an attitude that they are incapable of learning! This poses a query for me: why does the Reading Recovery Programme state that children engage with it at the age of 6?

What does this all mean?

Early childhood education, has a wonderful world class curriculum called Te Whariki. This celebrates and acknowledges the child and their needs at that time.

In primary education we also have a world class curriculum. However, for some reason when a child turns the magical age of 5, schools take this wonderfully creative person engaging in Te Whariki and assume that the child can sit for long periods and learn to read, write and do maths and until very recently meet the National Standards in line with the NZ Curriculum. National Standards although gone now, was an excellent example of someone not listening to people like Nathan Wallis, David Whitebread, Pennie Brownlee et al who are so clear about what a child needs because of a child's capacity to learn at that stage of life and development.

Dane Robertson, former principal of Kaimai School adopted Play Based Learning at the beginning of 2018. He states, *"My findings are that Play-Based Learning is not something that a teacher just does, rather, it is a pedagogical approach to teaching, it is a philosophy that can be backed up through neuroscience, educational theorists and research."*

Robertson concluded that social interactions improved, engagement was better and that aspects of self e.g. confidence, patience, perseverance, calculated risk taking and resilience had improved.

A survey completed during 2019 across the schools of the Kahui Ako ki Whakatu asked a number of questions about Play Based Learning. One question enquired into why each school had decided to utilise the practices of Play Based Learning. Responses to this question were;

- Because of the developmental needs of the children,
- To improve transition between the early childhood providers
- Because it provided a child-lead approach
- Responding to research

- To increase oral development
- Develop relationships and
- To improve inclusion.

However, probably more importantly, were the outcomes realised from the Play Based Learning which included;

- Children are learning to manage themselves, their behaviours and their emotions.
- Oral language has improved as children get to talk more.
- Self-directed learning means more meaningful learning is done.
- Children transition very easily into school. They have a really positive self-view and see themselves as learners. They show more perseverance and are able to drive their own learning.
- Children are more able to follow their own interests.
- Happier whanau.
- Planning ahead is challenging so we are now looking at backwards planning. This is making us more familiar with the NZ and Te Whariki curriculums.
- The transition from kindergarten to school is smoother. We have more time to focus specifically on social skills.
- More children are engaged in their learning.
- A general sense that learning is being led by the children.
- Greater opportunities to really know the children.
- Collaboration & shared planning assisting the development of child provocations.

Schools also shared some surprises which had come from the change in practice. They noted;

- How independent the children can be at driving their own learning.
- Children's oral language had developed.
- The range of interests and seeing some surprising play choices.
- Improved child engagement.
- How well it fits into the rest of the working day, alongside the teaching of more academic skills.
- The ability to see the tamariki flourish in activities of their interest. It gives the teacher a completely different perception of their dispositions.
- Ability to really position the child as a learner - how truly amazing our tamariki are if they are given a variety of opportunities.
- The levels of concentration amongst young children that are attainable.
- Support from families once they have seen how PBL is implemented.
- Higher student engagement & accessing their prior knowledge to lead learning.

All of these outcomes gained from the survey, relate strongly, if not directly, to the research of people like Nathan Wallis and so it makes sense that we need to change our practices to best support our learners.

One other question posed in the survey was about the perception of Play Based Learning with parents. Changing perceptions of parents can be difficult when it comes to arguing that the best way forward is to 'tweak' our practice to ensure that all children are having their needs met better without

evidence to back up the change. The unfortunate aspect of education is that everyone is an “expert” because they’ve all been “through it” and “they’re fine!” But, could they have been better? Could their skills working with others have been enhanced by a different practice? Could they have been better communicators? Could they have had a completely different educational experience had they been educated in a play based classroom? However, of most importance, is this question; Do the practices that were used in the past, meet the needs of 21st century learners?

One of the difficulties with Play Based Learning is that it is relatively new and there isn’t a lot of data to be found across schools which supports the stance that PBL is better engaging children with enhanced outcomes in later years. However, there are those theorists, who I have already mentioned, who make so much sense when it comes to learning and for changing how we best cater for the needs of our tamariki. This said, interestingly, when I asked schools who had been using PBL for one year or more I received these responses;

- We have 100% buy-in from all whānau.
- Very positive now.
- 99% of caregivers are grateful for this approach and on board with it.
- Sharing regular posts of their child's learning online with parents has been much appreciated.
- Parents/caregivers from our school community really support PBL due to the holistic side.
- Generally positive. They are happy that their children are happy and settled due to a smooth transition.
- Our whānau love PBL.
- Pleased that their children enjoy school.
- Some concerns that the learning is not 'real'. (I think this refers to formalised learning.)
- Surprise that the outcomes for the children are so positive.
- Mixed - regular whānau consultation & information is helping understanding.

What is to be learned?

For many, changes in the way we do things can be a struggle. Changing pedagogical practice is no different. Making sure that everyone is on the same page is crucial. Questions need to be asked of curriculum. Do school principles, values and expectations align with PBL? This is important. All staff need to be aligned because although not all staff are necessarily going to use PBL at all levels, the philosophy and the principles and values behind PBL will assist the wider learning in later years.

Parents must also be on board. When we introduced PBL at our school parents were initially apprehensive. They saw PBL as just play and didn’t connect the play and the outcomes which were so necessary to meet the children’s wider needs and which would provide a sound base for long term learning. However, after the hump of apprehension there was much more buy-in. This wasn’t easy to achieve however, and took lots of time explaining to parents about the theory, how we were integrating the two curricula, providing opportunities through our very comprehensive transition to school programme to see PBL in operation, working with our contributing ECEs to understand what they were doing and to get the development of PBL right, and sending snippets of children’s days home using the app SeeSaw. SeeSaw was a very important part of our change and has become a significant part of our reporting process.

The need to engage with school whanau regularly and with some immediacy rather than writing a formal report which was historic by the time whanau received it, was important. Parents want and need to be involved and engaged and it is critical that they are on board as part of the learning process. SeeSaw does this well.

Budgeting is also critical. Where different children's interests take them is forever changing. Therefore, the annual budget needs to allow for this. From the survey completed across different schools, resourcing was an issue for many and this needs to be addressed by management if they are to see this pedagogical change be fully embraced. Some responses to the survey suggested that teachers were funding many of the day-to-day activities from their own pockets which is never going to be sustainable.

As I completed my sabbatical, I read books, papers, other sabbatical reports, talked to people, and attended seminars. I have better understood the brain. I have looked in more detail at Te Whariki to better understand its content and expected outcomes. From all these sources of information I have gleaned the same thing which points us in the same educational direction: For our children to do their best, they must be provided with an environment that best nurtures them. I have no doubt however, that this is not necessarily the be all and end all of our children's learning and development but what I do have confidence in is that play is an essential part of a quality learning environment. Personally, I look forward to seeing PBL develop further across our school and our Kahui Ako and that our children demonstrate that their cross-curricula learning is further enhanced.

References

- *Ted Talk - Sir Ken Robinson - Do Schools Kill Creativity?*
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- *Nathan Wallis - Brainwave Trust and X Factor Education*