How Do I Know What to Teach?

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How Do I Teach?

I was never the kind of person to run off of worksheets. To be quite honest, with the limited suitable resources available in the digital technologies sphere, I would be hard pressed to do it even if I wanted to. Instead of defaulting to worksheets like some teachers do, I defaulted to the “I do, you do” method.

35 minutes	**More Tags!** Continue ppt - https://www.teaching-materials.org/htmlcss/lesson2/slides#slide14 1. Formatted text - , , <i>, <b> 2. Hyperlinks <a> 3. Images <img> 4. Lists - ordered, unordered - , ,

Above: “I do, you do” in DTW2’s lesson plan for Wednesday 7 February, 2018 (“Jess Petersen - Planboard Lesson - Feb 7 2018 DTW2”, 2018)

55 minutes	**Work Through and Demonstrate** 1. I have created a folder structure for my website 2. I have put html files into appropriate directories in my website root 3. I have linked my html files together 4. I have linked to an external style sheet

Above: “I do, you do” in DTW2’s lesson plan for Tuesday 13 March, 2018 (“Jess Petersen - Planboard Lesson - Mar 13 2018 DTW2”, 2018)

20 minutes	**We Do** As a class, use the "kiwihat" database to create a report that contains information about orders that a customer has placed.
10 minutes	**You Do** Use the Kiwihat database to create the following reports: 1. Daily Orders 2. All orders for the specified customer (LyoKat) 3. All customers

Above: “I do, you do” in DTP3’s lesson plan for Monday 19 March, 2018 (“Jess Petersen - Planboard Lesson - Mar 19 2018 DTP3”, 2018)

The “I do, you do” method consists of a demonstration by the *expert* - in this context, me - and then the learners attempt to complete the activity on their own. As the teacher, I wander around to help out students that appear to be having trouble. I found this approach to be really useful

because it didn't require a whole lot of preparation and it works extremely well when implemented in a digital technologies focussed classroom. I employed this method for primarily teaching processes and tasks that could then be applied to any scenario, such as Microsoft Access queries, and the use of HTML tags. It allowed me to focus on the skill-based content, and make the delivery in a non-complicated way. It’s important to realise that this method does have its uses, especially in teaching skills, but the frequency at which I used it was detrimental to the knowledge-building of my students.

The approach worked well for some of my students because they - like myself - preferred individual work with a clear goal. However, it didn't challenge my students to explore and come up with ways to apply these skills in different contexts to what I was teaching them.

The biggest concern that I had with this method was that it didn't incorporate values from Ka Hikitia very well. We, as a education professionals, are all on a journey to expand our cultural competencies in our practice, and by defaulting to “I do, you do”, I was not honoring my commitment to growing in my culturally responsive practice. Principles such as ako (reciprocal learning) and productive partnerships were not targeted in this approach, and as a result, I was consistently portraying myself as “the holder of knowledge” while my students were the “vessels to be filled with knowledge” (Ministry of Education, 2013). This really bothered me because I have always wanted to reflect the importance of ako in my teaching practice. I like to remind myself of this on a regular basis through the whakatauki poster I have in my room - “Naku te rourou nau te rourou ka ora ai te iwi” (with your basket and my basket the people will live) (Woodward Ltda, 2017).

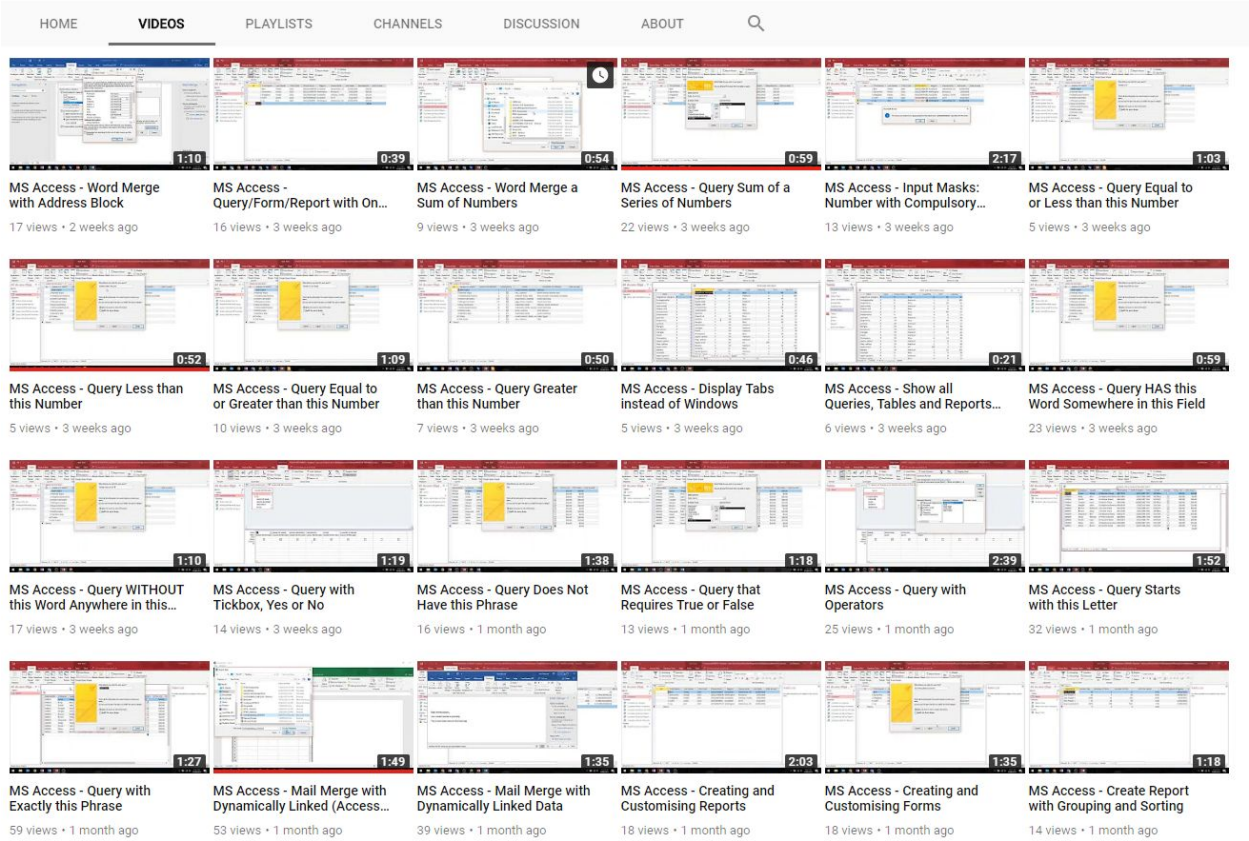
Above: My daily reminder of ako - with your basket and my basket the people will live (digitechdiaries, 2018)

I even found that when I asked for feedback from my learners on the whole, they didn't find the approach useful to help them in their own learning.

My observers picked up on my dissatisfaction with the “I do, you do” approach and gave me the opportunity to think about what I wanted to implement instead and how I could improve my practice.

As a result of this I explored moving into a more flipped classroom approach and that's how I intend to continue in my practice. I have started creating videos in a large variety of contexts. In this way I have been diversifying my by approaches and differentiating the work that I create for my learners. Students are able to work on activities wherever they want, and return to the

videos as much as they need. Videos can be slowed down or paused, and by creating a library of videos ahead of time, learners are free to forge ahead and explore new content as they with. An added benefit of creating videos is that I am free to challenge my learners by encouraging them to make videos of their own or to change the context and build their own creative content. In doing this, I have expanded my pedagogical knowledge in relation to my curriculum area in a way that is appropriate and specific to the needs of my learners (Graduating teacher Standards: Aotearoa New Zealand, 2008).



Above: A small section of the guide videos that I have created and made available to learners on my youtube channel (“Miss P's Classroom - Videos”, 2018)

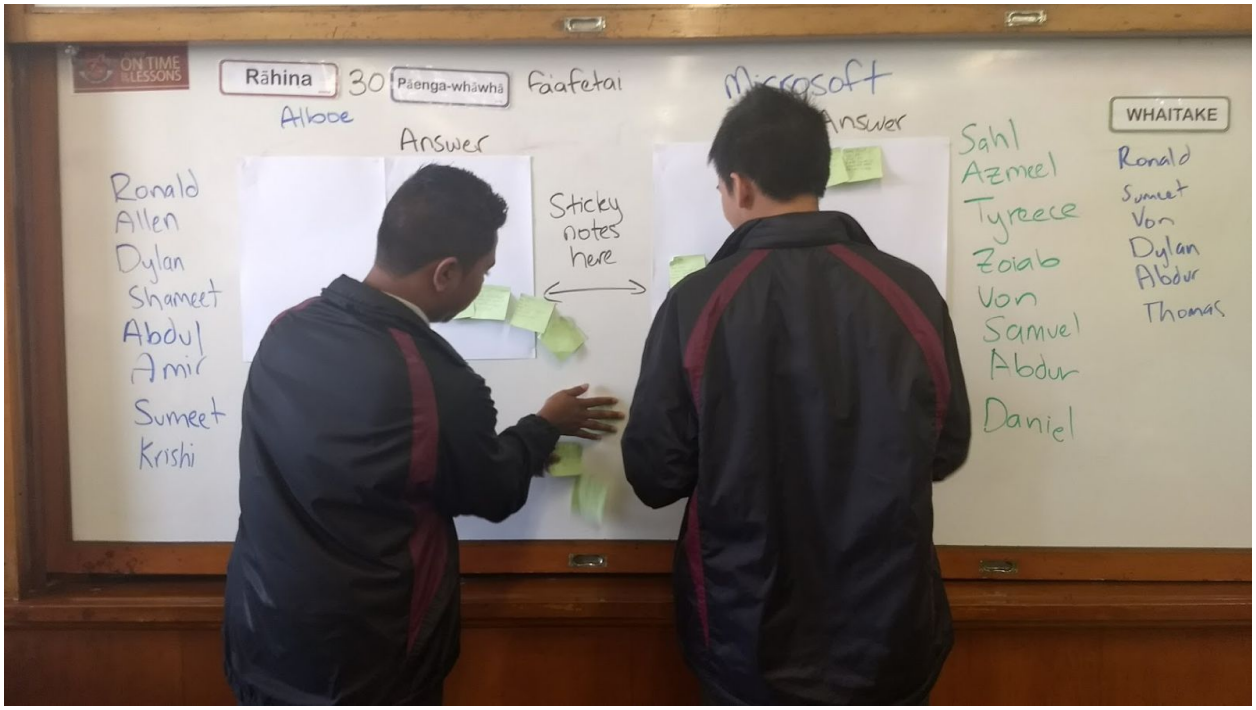
I have always found that I understand and learn better when I am given individual work, and am able to digest the content and complete tasks on my own. That is not the case for all of my learners. I have found that while some of my learners respond well to individual work many of them prefer group work and working together to build optimised and well-considered solutions. This has inspired me to change my practice and think about the context in which my learners grow up in and learn best in. It's interesting to me that the way that I learn best is not necessarily the way that my learners learn best.

Something that I've also found interesting is that learners tend to really respond well to different multimedia support resources than I did as a student in the past I have always found books and

text based resources to be the most useful and supporting me and my own learning full stop based on what I have seen from my learners so they tend to prefer more visual resources such as videos and posters.

After completing a number of group-based activities, I found that collaborative and visual tasks work great to engage and support my learners to learn. This is important because it helps me to diversify my range of learning experiences to promote achievement for learners that excel in different learning styles (Graduating teacher Standards: Aotearoa New Zealand, 2008).

Above: (“DTP3 on Tuesday 15 May, collaborating to solve programming problems using physical visual resources”, 2018)



Above: (“DTW2 on Monday 30 April, applies their prior knowledge of sorting numerically and alphabetically to manually query a physical database”, 2018)

How Do Our World-Views Come In?

I also need to be careful about the contexts that I use in the classroom. They need to be culturally appropriate, relatable, and also recognise things that may be going on in the lives of my learners. Things that may make sense to me such as talking about spending time with my mum or going to church on the weekends may not necessarily be the most suitable for my learners. An example of an unsuitable context that I used most recently was in one of my DTW2 classes. We were talking about our families and the number of people who live with us, but I hadn’t taken into consideration that one of my learners had very recently lost their mother to cancer. I was aware of the situation, and should have considered a topic that was less sensitive to that learner in order to teach that content (Graduating teacher Standards: Aotearoa New Zealand, 2008).

While I do not completely understand the cultural context of all of my learners I like to include them in as many of my activities as I can. For example my most recent assessment for my year 13 was written as a hāngi calculator. It was a very interesting experience as I do not have any year thirteen Māori learners, but I was determined to introduce them to Māori concepts as they are integral to respecting and participating in our national identity (Graduating teacher Standards: Aotearoa New Zealand, 2008). It took them awhile to warm up to the idea, but a

huge part of my philosophy as an educator is about inspiring my learners to have a passion for the world around them. It is really important that I take my responsibility of introducing them to other cultures seriously, regardless of whether they personally identify with that specific culture or not.

Internal Assessment Resource

Achievement Standard Technology 91611: Develop a prototype considering fitness for purpose in the broadest sense

Resource reference: Technology 3.4 v3

Resource title: Develop a Prototype for a Hāngi Calculator

Credits: 6

Achievement	Achievement with Merit	Achievement with Excellence
Develop a prototype considering fitness for purpose in the broadest sense.	Develop a refined prototype considering fitness for purpose in the broadest sense.	Develop a justified prototype considering fitness for purpose in the broadest sense.

Brief

Your teacher has asked to develop a hāngi calculator that will help to showcase programming at Papatoetoe High School. Your teacher has asked you to aim the outcome at year 11 and 12 students so that they are able to see the type of thing that they get to make in year 13. Your teacher has allowed you to choose the program that you use, but she is keen for you to demonstrate some key programming principles in the way that you make the outcome, so that she is able to use this as a teaching tool for them. The outcome should be able to run on the school network and students should be able to run the files from their school computers. It is important that the software can be run on a variety of personal computer operating systems, including Windows 10, Windows 7, and Ubuntu.

You will be assessed on your ability to develop a prototype digital hāngi calculator and justify its fitness for purpose in the broadest sense.

Specifications for the Hāngi Calculator:-

- The calculator allows for users to input a specified number of people and the calculator will calculate the amount of meat and vegetables required for them for the hāngi

Above: DTP3's most recent assessment - a prototyping assessment for a hāngi calculator that I created ("Worksheetsfor3.4_v5", 2018)

Something I found successful is leaving the cultural door open for my students. By this I mean allowing them to explore and share their own culture and beliefs with me. While I try my best, I certainly am not well-versed in all of the cultures that exist in my classroom and I have found that learning from the experiences of my learners is incredibly valuable. One of the tasks that I gave to my year tens was to create a Google doodle that celebrates a cultural event from a culture that they identify with. I was given the opportunity to learn a lot from each of my students and their cultures that I may not have otherwise had, especially helping me to understand the

effect that their cultural influences have on their lives. Being able to share these experiences with me gave my learners a sense of ako. I was taking the role of not just a teacher, but a learner and also an equal.

What About Digital Technologies?

Something interesting about being in the digital space is it is constantly changing. Technology is evolving at an exponential rate and, as a digital technologies educator, I need to ensure that I am constantly working hard to keep up with this rate of change. This is a responsibility that I have for myself as well as for my learners because they have the right to be learning the most current and up-to-date knowledge that is available to them. As a result of this I spend a fair amount of my own time reading teacher forums and exploring new approaches of education in a digital sphere.My own an artefact for our most recent MTEL assessment included some content created in HTML5 canvas - an emerging technology that we are currently teaching at Papatoetoe High School. While I had done some work with Adobe Flash in the past, spending some time to learn HTML5 canvas really enabled me to practice my skills and ensure that my learners are gaining the most suitable knowledge at the current time (Graduating teacher Standards: Aotearoa New Zealand, 2008).

I have also spent a lot of time reviewing my own knowledge in regards to programming. During my own studies I spent a lot of time learning the languages C# and Java. Unfortunately, the school that I teach at does not use these languages. As a result I have had to spend a lot of my personal time researching and learning about integrating Python into my classroom. While the concepts I learnt in C# and Java were transferable to python, I had to focus my efforts on learning the syntax from scratch, which has greatly benefitted my learners.

What Next?

In my experience, I have found that secondary education has changed remarkably, even in the three years that I have been absent from the system. I think that it's important, as an educator, to be consistently reflecting and reviewing my own practice in order to be constantly supporting my learners needs as best as I can. I have learned that it’s not just about improving my practice and pedagogical knowledge as a whole, but also applying it in a way that meets the different needs of all of my learners, especially in a digital space.

I intend to continue improving by reaching out for student voice, implementing “flipped classroom” techniques and expanding my own professional knowledge of digital technologies as a whole in my own time.

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