

Design for Learning

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Who are my Learners?

10DTG

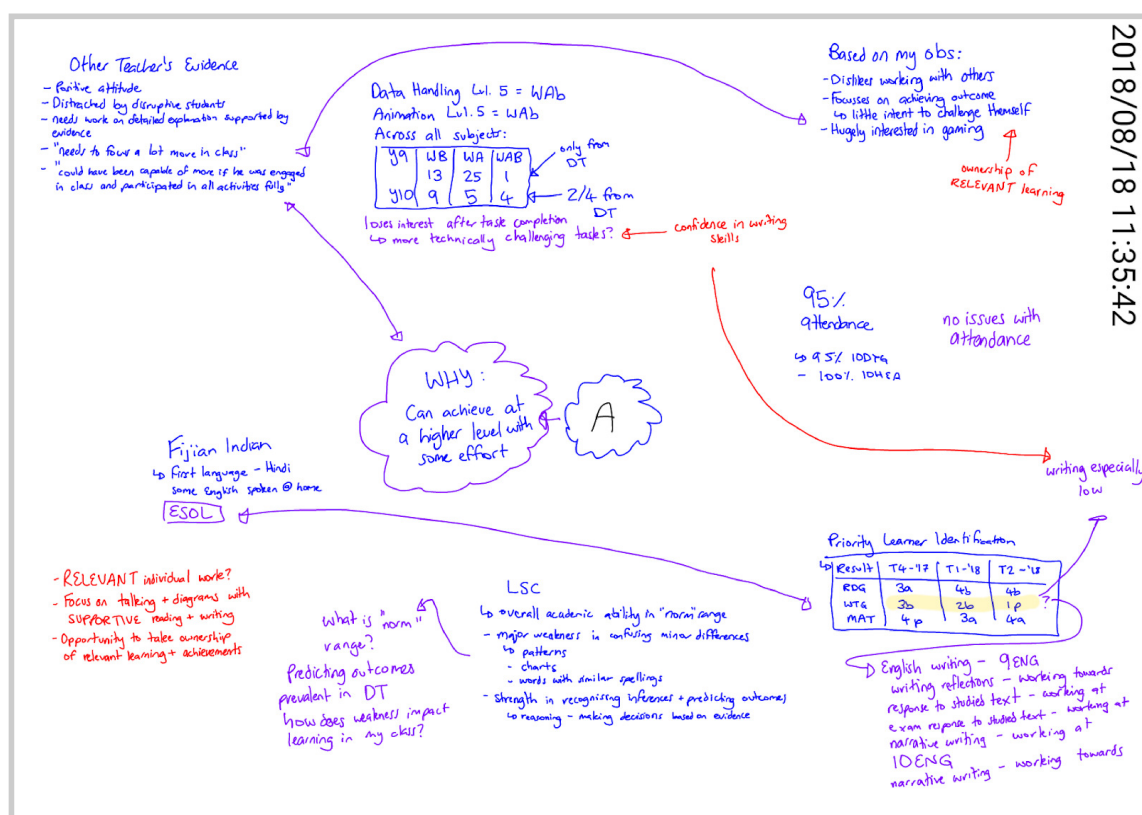
I have a diverse set of learners in my year ten general digital technologies class. My class is made up of twenty-seven wonderful teenagers with different needs. These include:

- Learners who have progressed from year nine to year ten during 2018 with the intent of moving into year eleven in 2019
- Year ten students who are sitting NCEA level one
- English language learners
- Students who have special learning, physical, and medical support needs
- Students who are enrolled at our onsite special needs support center

The diversity of needs in the classroom (KAMAR, 2018) makes this set of students an exciting challenge for me, and I am consistently working to support them as best as I can on their individual learning journeys.

I identified three students - Student A, Student B, and Student C - as learners that I would like to focus on for this inquiry.

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Student A

Student A is a student who identifies as Fijian Indian and predominantly speaks Hindi at home (KAMAR, 2018). The student is particularly interested in playing games and does so in their free time, as well as at school (Petersen, 2018).

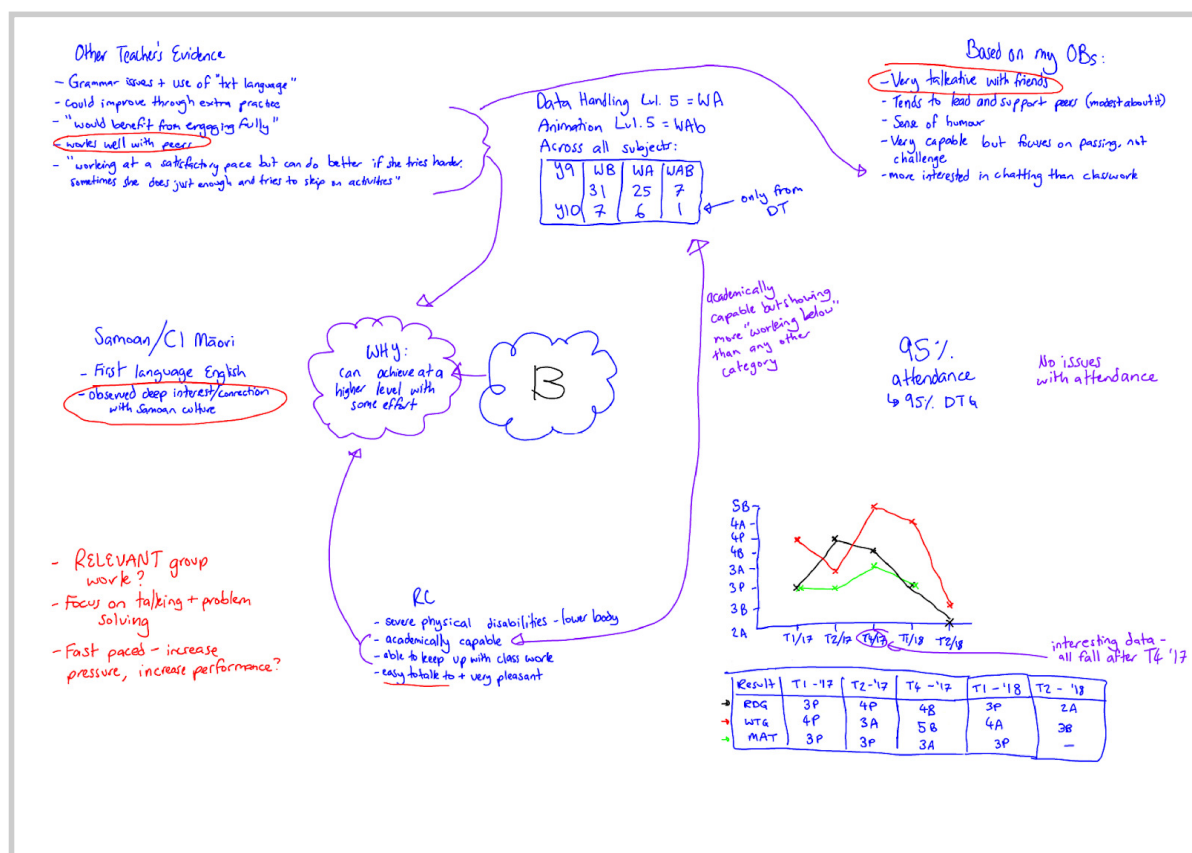
I have observed Student A completing exceptionally high-level outcomes in class when both challenged by and interested in the content. His grades in year ten general digital technologies reflect this, and his output in the illustration about a cultural celebration unit was excellent. I have also observed Student A losing interest in content that is not challenging for him, and presenting off-task behaviour during tasks that require a significant amount of writing. Student A disengages very consistently with group work and, based on my observations, prefers working individually.

Other teachers at the school have made comments about Student A in their classes, and the majority of their comments line up with my own observations of student A. According to their other teachers (KAMAR, 2018), Student A has a positive attitude, but is easily distracted by other students. Student A "needs to focus a lot more in class" and "could have been capable of a lot more if they engaged in class and participated in all activities fully". My own observations

support these points and Student A was selected for this inquiry as a result of my own belief that they could achieve at a higher level if they were more engaged with content and activities.

This student has consistently achieved low e-assTTle writing results - according to his student profile - and has ranged from a score of 3B (approximately equated to year five) in term four of 2017, to a score of 1P (approximately equated to year two) in term two of 2018. Student A's reading and mathematics e-assTTle have been much more stable over time, ranging from a score of 3A (year seven) in reading and 4P(year eight) in maths in late 2017, to a score of 4B(year seven) in reading and 4A(year nine) in maths in mid-2018. Their achievement in year nine was predominantly at the same level as their peers (64% "working at" grades in their KAMAR markbook, 2018), and their only "working above" grade came from general digital technologies in year nine. Their year ten achievement has shifted to predominantly "working below" the level of their peers (50% "working below" grades in their KAMAR markbook, 2018) and two of their four "working above" grades came from general digital technologies this year.

Based on the data that I have collected about Student A, their learning needs revolve around engagement and support in literacy-based activities. They respond well to work that they have an interest in and would benefit from extension and challenges beyond classwork that is usually provided. I think that giving Student A the opportunity to take ownership of their own learning, by making it challenging and individualised is the key to seeing Student A grow in their achievements in year ten general digital technologies.



Student B

Student B is a student who identifies as Samoan and Cook Island Māori. Unlike the other selected students, this student speaks predominantly English at home and is a native English speaker (KAMAR, 2018). The student has a very deep connection with their cultural identity as Samoan and is very interested in sports and their social connections with family and friends (Petersen, 2018).

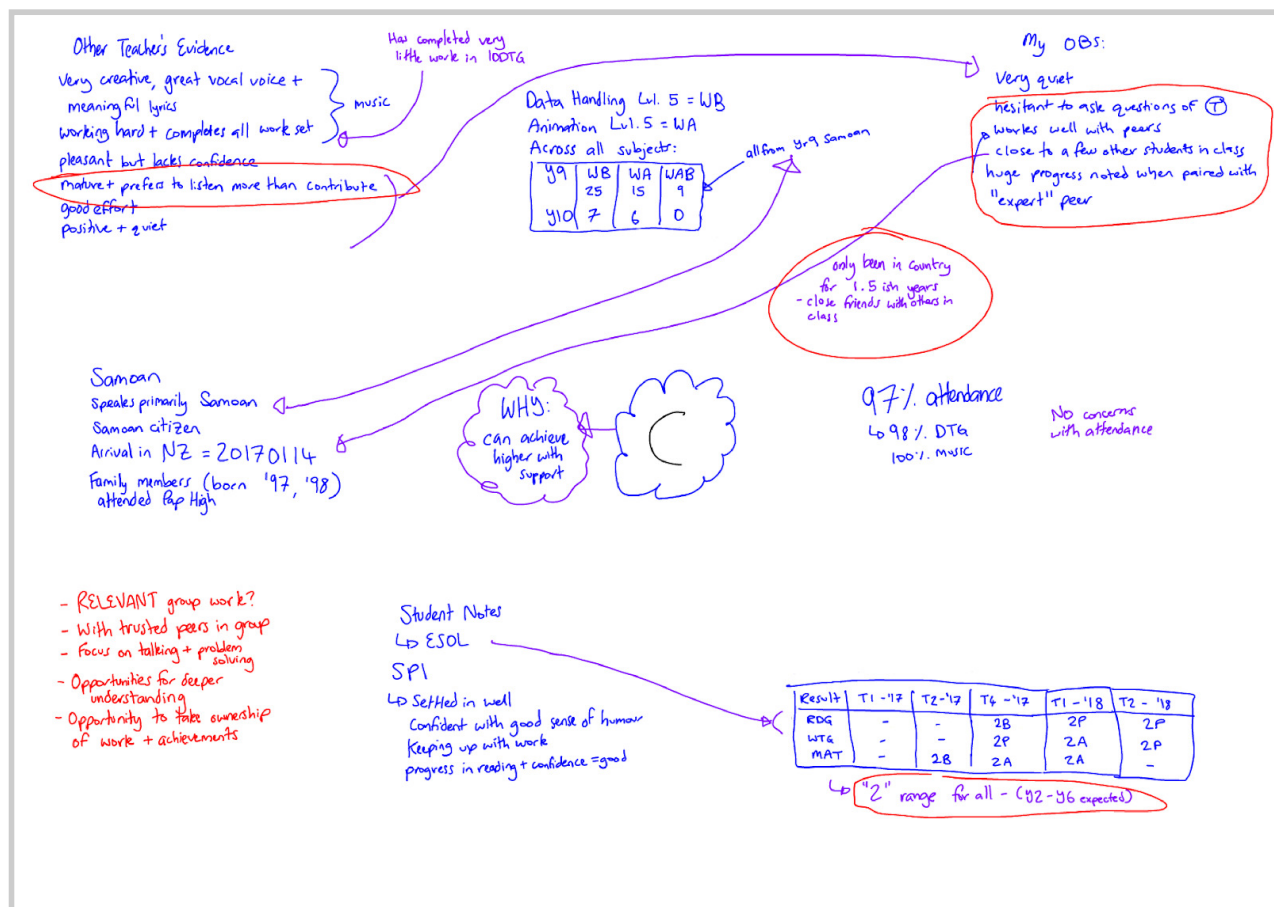
I have observed Student B working well with their peers in our class, and Student B often takes on pseudo-leadership roles in group activities. Student B is happy to support their classmates but is very modest about their role in leadership and has not taken on formal leadership roles when group activities require it. Student B is very socially engaged, and often gets carried away talking with their friends in class, rather than focussing on the work. This is related to Student B's observed tendency to only do the minimum amount of work required to achieve, and then move on to socialising with their peers again. They are very capable but seems to lack confidence in their knowledge of class content, and asks me to check their understanding before contributing an answer to questions in class.

Other teachers at the school have made comments about Student B in their classes, and the majority of their experiences are in line with my own observations of Student B. According to other teachers (KAMAR, 2018), Student B works well with peers and is “academically capable”, but “would benefit from engaging fully”. Student B also “works at a satisfactory pace but can do better if they try harder. Sometimes they do just enough and tries to skip on activities” (KAMAR, 2018). This is in line with my own observations of Student B, and reinforces my reasoning for selecting Student B as my focus as I believe that they could achieve at a higher standard if they were more engaged with the learning.

Student B has achieved mixed e-assTTle results. Their reading shows improvement between the first term of 2017 (3P - approximately year six) and the second term of 2017 (4P - approximately year eight), but improvement seems to stop after this point - declining to a score of 4B (approximately year seven) in term four of 2017, a score of 3P (approximately year six) in term one of 2018, and then a score of 2A (approximately year five) in term two of 2018. All of the student’s e-assTTle scores seem to follow this trend of declining after term four of 2017. Writing starts at 4P (approximately year eight) in term one of 2017, then move to 3A (approximately year seven) in term two of 2017, to 5B (approximately year 10) in term four of 2017, then abruptly falls to 4A (approximately year nine) in term one of 2018, and 3B (approximately year five) in term two of 2018. Mathematics e-assTTle scores also fall for Student B after term four of 2017 (3P in term one of 2017, 3P in term two of 2017, 3A in term four of 2017, and then 3P in term one of 2018) (KAMAR, 2018).

In terms of other academic results, Student B has performed regularly below their peers in year nine assessments, with about 50% of their year nine grades at a “working below” level. In year ten, the student has performed about the same with 50% of their grades at a “working below” level, and additionally, their only “working above” grade has been achieved in year ten general digital technologies (KAMAR, 2018).

Based on the data that I have compiled about Student B, I think that collaborating with others in relation to work that is relevant to them is going to be the key to better supporting their success in year ten general digital technologies. Based on their e-assTTle reading and writing scores, I think that work should be focused on problem-solving and skill based activities, with few, well-supported literacy-based activities. Literacy-based activities that I provide for this student should be well structured, and created using language that meets their needs.



Student C

Student C identifies as a Samoan student who primarily speaks Samoan at home and arrived in New Zealand at the beginning of 2017. Student C has a very deep connection with their cultural heritage and enjoys teaching me about their culture. They love singing and are very involved in the music department at school (Petersen, 2018).

Based on my own observations, Student C is a very shy learner and works hard when given clear instructions and structure. Student C has not responded well to explorative, unstructured tasks as they are not often willing to ask questions to the teacher or their peers. This often leads to work not being completed by this student in class. This student is very close to a small number of their peers and works very well with them, but seems to find approaching other students outside this group quite challenging. I have paired this student with other learners before, and have seen a huge improvement in their progress when paired with a student that they trust that has a deep understanding of the class content.

Other teachers at the school have commented about Student C in their classes, and I was surprised to find that other teachers, especially in the music department, have very different

experiences of working with this learner. According to the comments of other teachers, Student C is very creative and works hard to complete all work that is set. They are quiet and mature during class discussions and prefer to listen more than contribute. They are pleasant, but lack confidence. The comments of other teachers support me in my belief that Student C could benefit from working with others to support them in improving their confidence, as well as improve in year ten general digital technologies as a whole (KAMAR, 2018).


Student C has fairly consistent e-assTTle results. Their achievement has remained at the “2” level throughout 2017 and 2018. Student C’s reading scores have improved slightly over time, moving from a 2B (approximately year two) in term four of 2017, to a 2P (approximately year four) in term one and two of 2018. Writing scores have stayed consistent at a score of 2P (approximately year four) in term four of 2017, 2A (approximately year five) in term one of 2018, and then a score of 2P again in term two of 2018. Student C’s math scores have improved over time as well, moving from 2B (approximately year two) in term two of 2017, to a score of 2A (approximately year five) in term four of 2017 and term one of 2018 (KAMAR, 2018).

Student C was predominantly working below in their year nine assessments, with just over 50% of their scores being at “working below” level. Just under 20% of Student C’s grades were “working above” standards in year nine, and all of these scores were gained in Samoan class. This year, Student C appears to be working between “below” and “at” standard, with seven of their thirteen grades at “working below” and the remainder at “working at” (KAMAR, 2018).

Based on the data that I have collected about Student C, I believe that they would benefit from group collaboration with trusted peers, and a focus on exploring skills in a structured way. Literacy-based tasks will need to be using language at an appropriate level for the student, and an opportunity to ask questions of trusted peers should be provided. Tasks should allow for creativity and contextually relevant to the student.

10DTG Website Crash Course

SECTION ONE: BASIC HTML



First Website Tutorial

While you can write web applications and text-based ensembles in Repl.it, sometimes it's nice to be able to

HTML Tutorial for Beginners - L...

CHARACTER

<html>


LEFT ANGLE BRACKET (LESS-THAN SIGN)

RIGHT ANGLE BRACKET (GREATER-THAN SIGN)

OPENING TAG

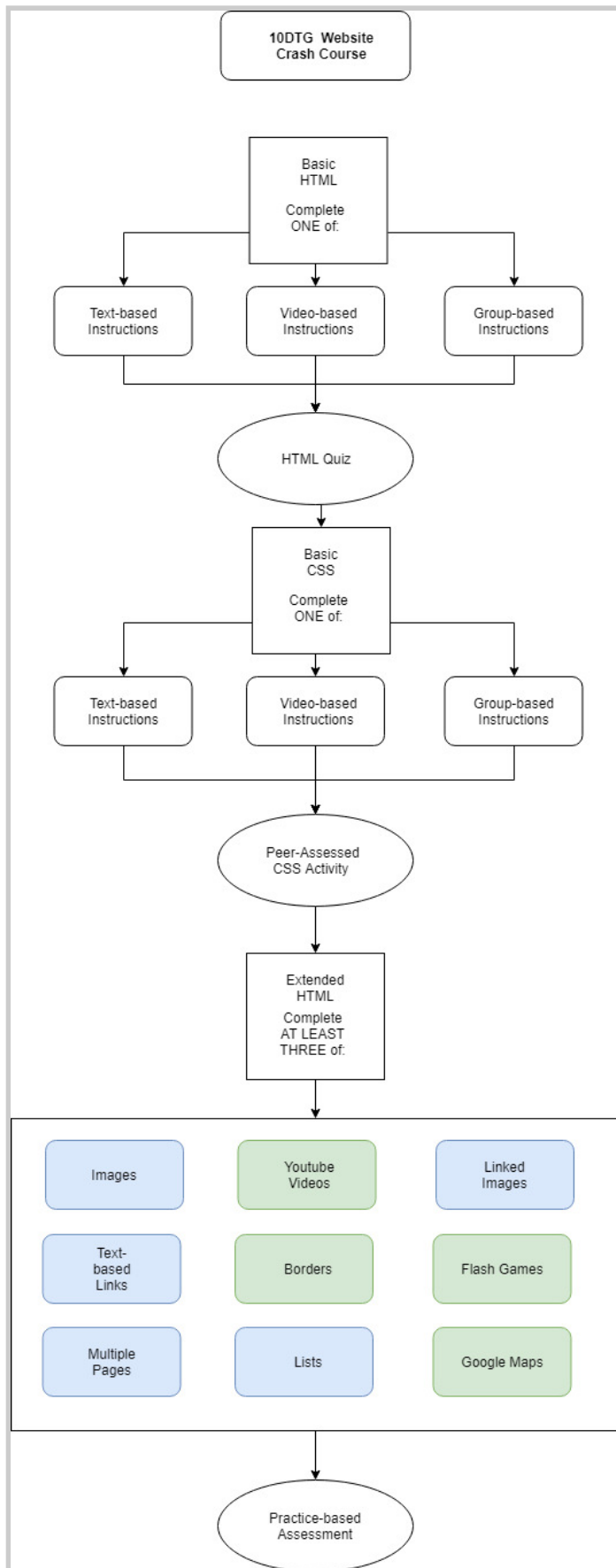
VIDEO-BASED

Work individually or with a friend to create a website, using this video as a guide. Make sure that you're practicing your own skills if you choose to work with a



PRACTICE-BASED

Come to the front-half of the class and work along



My Artifact

What is it?

My artifact is a digital “choice board” that allows learners to interact with content in a way that best suits them. It consists of an online “portal” that acts as the resource directory, and individual “sessions” that point the learner to lessons of content. These “sessions” exist within different “sections”, with the goal of learners completing each of the three sections by the end of the unit and, as a result, learn all of the content and skills necessary for the unit. Each section is concluded with a formative assessment that allows both the learner, and myself to track their progress in the unit.

See the diagram to the left for a better explanation of the structure of my digital choice board.

The first two sections consist of foundational skills - skills that learners will need to have in order to move on to more advanced topics at the end of the unit. These sections each contain three different sessions, each aimed at a different learning style. The final section consists of a number of different advanced elements that learners will learn to implement in their websites. Sessions in this section are divided into two groups, and students are expected to complete at least three sessions in this section before they advance to the final project.

Sessions in the final section are colour-coded either blue or green. Blue sessions are core elements that are aimed at the majority of my learners. Green sessions are advanced elements that are aimed as extension tasks for my extended learners. Based on their performance to date, including their formative assessment tasks, learners will be allocated a combination of blue and green tasks to complete.

For example, Student A may be tasked with completing at least one blue session and two green sessions, while Student C may be tasked with completing three blue sessions.

In this way, learners will be able to choose the elements that they'd like to focus on, while also practicing level-appropriate skills, and utilising the learning style that they feel fits them best.

How will it Change my Pedagogy?

My teaching approaches over the past year have quite often revolved around activities that could be completed individually or with peer support, with little to no differentiation in the activity content. I have focused on a combination of providing learners with worksheets, direct instruction and my own created YouTube videos to support learners to build the skills necessary to complete the 10DTG course. Through this artifact, I am able to diversify my teaching approaches. Learners will be able to self-select the teaching approach that works best for them - learning via text-based instruction, learning via video/audio-based instruction, or learning via direct interaction.

Assessments in the past have often been differentiated by outcome, but the learning in the classroom has been consistently inflexible to the diverse needs of the learners in the room. The majority of learning activities have been based around completing pre-made worksheets. These worksheets are not differentiated by prior knowledge, preferred method of learning, process, or outcome. As a result, all learners were expected to complete the same work to the same level, despite their individual needs for support or extension. Through my artifact, learners will be supported to achieve outcomes regardless of their prior knowledge, as well as be supported at the appropriate level. Learners will not be limited to completing only their allocated activities and will have the opportunity to extend themselves if they wish.

My artifact is very reliant on learner agency in order to be successful. For the most part, the artifact is intended to be learner-led, and learners need to be fully engaged with the activities in order to maximise the benefits. While full engagement is necessary for learners to succeed in this system, I believe that it provides students with an opportunity to build self-management skills. I intend to build some learner ownership into the unit by encouraging students to self-select topics for the websites that they build as part of the unit activities.

How will I Monitor Results?

The overall goal of design for learning is to positively impact the achievement and learning experience of the learners in my classroom. If my artifact is implemented successfully, I expect to see the following:

- Work ethic rating improvement (both in my observation and the student's self reflection)
- Engagement rating improvement (both in my observation and the student's self reflection)
- Learners are passionate about showcasing their websites
- Learners complete all three sections of the unit

How does it Meet the Universal Design for Learning Framework?

In order to begin the process of design for learning, it's important to begin with an inquiry cycle. If we want our learning design to be effective, we need to ensure that we are building it from the needs of our learners, not just the needs of the content. The basis for my artifact came out of the noticing, investigating, and sense-making stages of my inquiry cycle (Education Review Office, 2015). I noticed that some of my learners were not achieving to their highest potential, so I investigated the data that I had about the students and deduced what their learning needs were. The "prioritising to take action" stage is where I started creating my artifact.

Universal design for learning is based on three principles: engagement, representation, and action/expression. I found that all three of my selected learners were less engaged in the content than I would like, and that learning activities did not always match their needs. By creating a digital choice board, I aim to improve engagement through encouraging learners to choose from a range of HTML components and website topics that they may be interested in, representation through providing instruction through avenues that cater to different learning styles, and action/expression through individual goal-setting and allowing the use of different web-authoring tools (New Zealand Ministry of Education, 2017).

Learning experiences are diversified as each learner will choose their individual path to success that suits them best. A large range of technological tools are employed such as Google Sites, repl.it, YouTube, blogs, and Quizziz. Traditional teaching instruction will only happen between myself and the learners who choose the "practice-based" sessions in the "Basic HTML" or "Basic CSS" sections. Ideally, the majority of "teaching" within the unit will happen between learners as they work together to complete tasks. A variety of formative assessment strategies will be used, including multiple choice and short answer quizzes, peer-assessed tasks, and project-based assessments.

References

Education Review Office. (2015). Internal Evaluation: Good Practice. Retrieved September 4, 2018, from <http://www.ero.govt.nz/assets/Uploads/ERO-15164-Internal-evaluation-FA2-lowres.pdf>

KAMAR. (2018, August 14). Papatoetoe High School KAMAR Student Database. Papatoetoe, Auckland.

New Zealand Ministry of Education. (2017, December 4). Universal Design for Learning. Retrieved September 3, 2018, from <http://inclusive.tki.org.nz/guides/universal-design-for-learning/>

Petersen, J. (2018). Me and My Learning - 10DTG [Google form]. Retrieved 14 August, 2018, from <https://docs.google.com/forms/d/1H-npjsLueeslxt5Pu4lpPVNyAu3sTK37kJO7qMjanns/edit#responses>