



## 6 - Digital Technologies NCEA Level 1 Phase 1 Survey – Raw Feedback

58 answers to "Impressions - Digi Tech - What is your overall impression of the Learning Matrix?"

Option	Total	Percent
On the right track	<a href="#">19</a>	1.66%
Needs amendments	<a href="#">39</a>	3.42%
Not Answered	<a href="#">1084</a>	94.92%

57 answers to "Impressions - Digi Tech - What is your overall impression of the Teaching, Learning, and Assessment Guide?"

Option	Total	Percent
On the right track	<a href="#">15</a>	1.31%
Needs amendments	<a href="#">42</a>	3.68%
Not Answered	<a href="#">1085</a>	95.01%

57 answers to "Impressions - Digi Tech - What is your overall impression of the example Course Outlines?"

Option	Total	Percent
On the right track	<a href="#">18</a>	1.58%
Needs amendments	<a href="#">39</a>	3.42%
Not Answered	<a href="#">1085</a>	95.01%

59 answers to "Comments - Digi Tech"

Response ID	Answer
<a href="#">ANON-K9GG-12XN-U</a>	The content is not very clear, how would this translate into Assessment Standards and class content.
<a href="#">ANON-K9GG-127T-Z</a>	Despite the millions allocated to the new Digital Technologies Curriculum implementation, there is still little material provided for the subject in terms of teaching and assessment for teachers at NCEA level. See TKI - there is no teaching material for Level 3. I have been through the website this survey directs users to, and also done an internet search. The website is extremely light on

Response ID	Answer
	<p>detail - next to nothing. Internet searches don't bring up a lot of detail on this initiative either. My overall impression that this survey is not designed to collect insightful valid data but merely to rubber stamp another vague MOE initiative. This survey should not have "on the right track" or "needs minor amendments" as the only options. This survey seems very biased towards what the MOE has already decided.</p>
<a href="#">ANON-K9GG-12QZ-Z</a>	<p>I understand where these have come from - recognise main ideas from current discussions and world wide developments</p>
<a href="#">ANON-K9GG-1275-1</a>	<p>Learning Matrix - No real concrete language used, more social science language. Example Course Outlines were very general. No detail. And so not sure how this will work out in practice.</p> <p>Assessment -</p> <p>In L1 I was missing the Proposal Standard, but found it in the Develop an Outcome Internal. Odd place to put it.</p> <p>Strange thing is that part of it also comes back (not literally, but language is used that point towards Proposal) in the Design a Proposal standard.</p> <p>And I see they are going hard core Computer Science for the Externals. 1.4 looks like a Social Sciences standard from the outset, but then talks about Compressions Coding etc.. How will this fit teachers who do are not computer science teachers?</p>
<a href="#">ANON-K9GG-12SC-B</a>	<p>Very coding based versus design and creativity. Narrowband of digital methodologies. Not very administrative or database focused.</p>
<a href="#">ANON-K9GG-12GM-9</a>	<p>1.1 and 1.2 seem to overlap and don't provide a way that you might do one big project. Design is done twice.</p> <p>1.2 seems a lot more work than 1.1 - but the same credits.</p> <p>1.3 buried in the course outline you discover that it is a report/presentation format - seems to be a move back to the reports that the students struggle with.</p> <p>1.4 an exam on programming - will be like university where they have to rote learn programming?</p>
<a href="#">ANON-K9GG-12ZG-P</a>	<p>How does that take into account student interest? Students will only be able to choose one skill and therefore only do one skill based assessment. This means we will be forced to do a lot more paper based work and less practical work. This WILL have a negative impact on subject numbers.</p>
<a href="#">ANON-K9GG-12VF-H</a>	<p>If the coding standard is external, does that mean we will all have to do the same language?</p> <p>Concerned about assessing programming and computational thinking in external exam. This would better done internally. DT1.1 (Design) could be made into an external in a "report" format similar to old DT externals.</p> <p>Concerned that only 10 credits are now available for whole project where currently 16 (1.1, 1.2, 1.4, 1.8) are available for same work unless some significant criteria are removed - this could be alleviated by ensuring new DT1.3 can fit in as a kind of "inquiry" that could be done before a design.</p>

Response ID	Answer
<a href="#">ANON-K9GG-12VT-Y</a>	<p>I'm concerned about how I will put a course together using these new standards. I consider both digital information skills and digital media skills to be critical for students to be prepared for the future. It appears that I would only be able to teach and assess in one of these two areas (unless their outcome requires both, but this would disadvantage them compared to other students who are designing an outcome that only requires one of these areas). The lack of information in the assessment matrix makes it hard to have any confidence about how this all works.</p> <p>I'm also very concerned about the Examine the impact of digital technologies standard - this seems to me to be directly related to social sciences and I feel completely unequipped to teach this - example course outline 1 allows 6-7 weeks(!) on this and I have no idea what I would be doing for all that time, let alone the fact that students coming into Digital Technologies are expecting to use computers to design and create digital outcomes, not talk about people, societies and cultures. The current course I teach (91879, 91885, 91880, 91883, 91887) works really well for our learners, but I can't see how I would be able to continue to teach this in the new framework.</p>
<a href="#">ANON-K9GG-12JM-C</a>	<p>Where does Electronics fit into this? There is a heavy bias to computing and programming. Nothing for standard Electronics.</p>
<a href="#">ANON-K9GG-12BY-G</a>	<p>Digital technologies have recently completed a complete review of the curriculum, why is another needed so soon?</p> <p>The digital technology NCEA standards were highly refined to match the needs of the environment,</p> <p>Digital technology teachers fought, and fought to have our own area of the curriculum that offered a wide range. We did this so that we could teach in one year: Programming, Website development, Animation, Electronics and databases.</p> <p>The NCEA standards allowed us to run 2 separate digital tech classes:  Digital Media: Outcome design, Animation, graphic design, image compression  Computer Science: Programming, Website development, databases, Usability Heuristics.</p>
<a href="#">ANON-K9GG-12PA-6</a>	<p>This new change will not allow teachers to run 2 separate classes, in which students can take both and not overlap in credits.</p> <p>It needs much more room for the skills training, and forces teachers to focus on two sets of skills. It is far too narrow.</p> <p>We have just changed all the standards and it worked, this has obviously not consulted the wide range of digital technology standards.</p> <p>In saying this, I come from industry, and I have a relevant degree. The skills that you are getting students to complete will not help them with computer science or the job market when they leave. They need a wide range of activities that this curriculum does not support.</p>

Response ID	Answer
<a href="#">ANON-K9GG-12PC-8</a>	<p>I also have problems with Mana Ōrite mō te Mātauranga Māori, which I will highlight in the next section.</p> <p>1.3 has nothing to do with digital technologies - it is a waste of time by the looks of it.</p>
<a href="#">ANON-K9GG-12CD-V</a>	<p>I would much rather that 1.3 be a portfolio of student work or outcomes instead of what clearly is reading like a boring report which is marked externally. Externally marked reports in the digital technology context have a terrible history of being very hard to guess how they will be marked and inconsistent marking. We have no confidence in the system and marking because of 15 years of inconsistency. The technology curriculum should be about making outcomes, and a portfolio of their work is a much better outcome than boring reports. They write boring reports for other subjects, why not use this opportunity to make the subject area awesome and include outcome focused assessment that demonstrates their actual skill instead of their ability to write to an assessment schedule.</p>
<a href="#">ANON-K9GG-12C2-A</a>	<p>I am also concerned that it is narrowing the context for which courses will be able to be created. The last standard 1.4 requires programming and computer science. We have Computer Science as a course and this standard will work well for them, but we also have a digital design and computer applications course which is more creative. Those kids will not be interested in computer science, so are we limiting them to a 15 credit course, or is the alternative to build the course out of standards from different subjects?</p>
<a href="#">ANON-K9GG-126J-N</a>	<p>We currently run two Digital Technologies courses. One is media based and one is computationally thinking based. We can make up two courses, we cannot continue this with the new standards. Students will only be able to select 1 course and not 2.</p>
<a href="#">ANON-K9GG-126A-C</a>	<p>Concerned about the Digital media side of the curriculum especially when it comes to the externals</p>
<a href="#">ANON-K9GG-129F-M</a>	<p>Need ammendment to include aspects of the nature of technology</p>
<a href="#">ANON-K9GG-129F-M</a>	<p>What happens if the student wishes to only look at the design and human interaction side of digital technologies. Our school requires TWO externals to be taken by students for academic rigor and there are many who do not wish to sit the programming standards. We need to have two streams to pick and choose from for our courses. A portfolio of work for an external would be beneficial for these students. Being able to use DVC, ART, MATERIALS, MEDIA standards to create a cross-curricular course would allow the students to create a pathway for future careers.</p> <p>Cut down on the amount of writing that the students do. (Feedback from the stakeholders)</p> <p>Don't WRITE about the relevant implications. This should be something that is worked through naturally in the process of creating an outcome. Maybe a checklist of relevant implications that apply to the outcome and the process to get there. It is unfair to fail a student because they have not discussed, explained or</p>

Response ID	Answer
<p><a href="#">ANON-K9GG-129J-R</a></p>	<p>addressed the RIs. Make sure that we have exemplars OR the moderators have a workshop of expected standards.</p> <p>We have both Digital Technologies and Computer Science courses at all levels here and looking at the new proposed standards, we can do a programming standard (1.4) and one other outcome (1.2). Digital Tech teachers across the country, we may wish to cover databases, websites, hardware, electronics, networking, robotics, etc. and only having 1.3 to cover all these variations seems extremely limiting. I've just had a chat with my HOD and it seems to us that we need at least one extra outcome standard and another internal or external standard so we can be more diverse and allocate a minimum of 3 different standards to each course or something similar. The powers that be recognize the two strands via the progress Outcome frame work (<a href="https://technology.tki.org.nz/Technology-in-the-NZC/DDDO-Progress-outcomes-exemplars-and-snapshots">https://technology.tki.org.nz/Technology-in-the-NZC/DDDO-Progress-outcomes-exemplars-and-snapshots</a>) and many school are using both as separate strands for courses for their students</p> <p>1.1 Current Design Standard is 3 cr.. So to get to 5 cr we can chuck part of the Proposal in there to start with. The current standard for Proposal though is also 3 cr. So concessions will need to be made.</p> <p>With regards to Proposal element of this new standard, the lanuage def needs to be calrified and cleaned up. le Requirments/ Specifications.</p> <p>Also Justifying with evidence that it meets requirments was a tad confusing.</p> <p>With regards to Design, "relevant implications" needs to be resovlved. This is a term no one ever uses and confuses teachers and students alike.</p> <p>Language like "explain", "define", "justify" etc needs to be clarified..</p>
<p><a href="#">ANON-K9GG-129U-3</a></p>	<p>Also, Technology Generically talks about Stakeholders, but Digi talks about End-users. I think we need to clean this up as they are not interchangeable plus by only thinking about end-user and not stake holder, we lose something.</p> <p>1.2 Current Iterative Processes standard is already 6 cr.</p> <p>Then each of the current "Digital Media" and "Computer Program" standards (the implement ones) are 4 cr each.</p> <p>The new new standard talks about "to develop an initial proposal". This needs to be taken out and has no place here.</p> <p>This standard would be the "making" standard which would already assume that you know what you are making. I'd assume that they would have done Design standard first where they do the Proposal bits.</p> <p>With 5cr in this new standard, having 10 cr plus Proposal work in there is going to be too much.</p>

Response ID	Answer
<p><a href="#">ANON-K9GG-12RY-Z</a></p>	<p>Current Iterative Standard talks about Trialing Components and Testing Outcome. This is completely contradictory to real world application and jargon. This needs to be cleaned up.</p> <p>Current standard talks about "sketches, wireframes or mockups of the outcome." etc as "planning" the outcome. I'd say this should all have been done for the Design.</p> <p>Even breaking up into components really already starts in the Design phase.</p> <p>Current standard "trailing multiple components and/or techniques and selecting the most suitable".. I would split this up and have both in there. This whole thing is confusing. Clarify also at least what is meant by techniques.</p> <p>"Relevant Implications" needs to be cleaned up. Term not used in real life.</p> <p>Current iterative standard slips in "high-quality outcome." This has no place in a standard that checks for the process, not the quality of the outcome.</p> <p>In Digital Media standard is noted "applying appropriate data integrity and testing procedures". Testing here is used differently to the rest of the standards. Also data integrity needs to be clarified.</p> <p>1.3 If this standard is the "social science" standard then this "knowledge of compression coding for different media types" doesn't belong in there at all.</p> <p>Does the subject get set at start of year?? Or only find out when students sit the exam??</p> <p>Is this a report?</p> <p>Like critiquing a Design for L3 Tech?</p> <p>Or DcAT like current one?</p> <p>This standard should be left clean of CS heavy content as otherwise you will penalise Digital Media heavy courses.</p> <p>1.4 For this to work, this will need to be a sit down exam where everyone gets to work on the same problems. This means though that a common programming language needs to be agreed upon?</p> <p>If this is a report/portfolio programming external, I think having this externally marked is the wrong way to go. It needs to be kept to the teacher to determine in class. If this is a report/document/portfolio, students with average writing skills, but good coding skills, will be disadvantaged..</p> <p>There is less flexibility in the content/skills covered, and for individual students. The proposed standards appeal to the more academic student. With existing flexibility we can support individual students to help them experience personal success. These newer assessments are less flexible (e.g. 2 externals), so we have concerns about how those students will handle these.</p> <p>We have concerns about how the programming external will be run. Will it be a</p>

Response ID	Answer
<a href="#">ANON-K9GG-128U-2</a>	<p>formal timed test, or an externally assessed project? For the less confident student, an internally-assessed standard provides them with opportunity to build confidence. We worry that having an "timed" assessment will bring in an additional layer of "unknown" to throw their confidence.</p> <p>This new structure will mean we don't cover such a broad range of skills. We do have concerns about how this might impact on our Scholarship students working on individual projects in Y13 (not having the same broad base of skills developed along their journey).</p> <p>There is a huge reduction in the amount of practical work that students undertake. Clearly planning has its place but it needs to run side by side with the making not interminable research beforehand. Digital Technology is a lot of "doing" and becoming adept with the way code works, understanding what can realistically be achieved and being able to troubleshoot.</p>
<a href="#">ANON-K9GG-12E7-H</a>	<p>Where does it say that we have to move from 13 standards to 4? why do we have to simplify soo much?</p> <p>This would mean major redundancies for our school as we currently teach digital media, electronics and computer science. Students wouldn't be able to do all of it.</p>
<a href="#">ANON-K9GG-12NH-B</a>	<p>It feels as though the course no longer flows the way it currently does. Designing an outcome for one standard, then going into proposing an outcome and creating it for another does not create a nice workflow whereas the current standards go proposal&gt;design&gt;develop/iterative/media/etc. They flow in a logical manner for project creation.</p>
<a href="#">ANON-K9GG-12FD-Y</a>	<p>There are a lot of students who are going to struggle with this also as a lot seems to indicate an even heavier emphasis on the ability to write which is going to be disadvantageous to those with learning differences. We need to consider whether we can cater to all types of students inside our DT curriculum</p> <p>Both the new learning matrix and the course outlines seem to pen teachers into teaching only one component in Digital Technologies   Hangarau Matihiko. When students choose DT HM they are expecting to learn how to create digital outcomes. With Level One having the focus being on a general approach (and at times some students first time completing a Digital Technologies course) students should have the chance to have a look at a number of different areas under the DT HM curriculum (web development, programming, animation, electronics etc.). The current plan pigeon holes students so that this is not possible and they need to specialize in one area straight away - the teacher's preference would be the obvious choice.</p>
<a href="#">ANON-K9GG-125T-X</a>	<p>The sample course outlines are not realistic at all. I have been teaching this subject for over 30 years and there is no way that content could be covered in any meaningful way. They seem very "once over lightly" and not engaging at all.</p> <p>How is programming going to be an external assessment? Will we all be forced to teach the same programming language? This is going to be a top way to kill the subject, especially for girls. They will disengage from a forced programming external and we are struggling to keep girls in the subject.</p>

Response ID	Answer
<a href="#">ANON-K9GG-18X3-6</a>	<p>Why did DVC get the same number of standards, when Digital Technologies has many different specialist areas? I feel this matrix will kill the subject and push the remaining teachers out (me included). I am depressed just looking at it.</p> <p>As per usual, the promised guides and exemplars and PLD (which never appeared last time ) will never appear this time. How are we to be upskilled in the Māori concepts without support?</p> <p>This matrix will restrict access to engaging local contexts.</p> <p>The Learning Matrix signals a move to a very prescribed curriculum which limits the choices, extension and inclusion of a student's own culture within their own work. The Assessment Guide gives no options, just 4 standards which every student who does digital technologies will do. Again limiting the ability to extend students in their areas of interest and it lacks the ability to adapt the curriculum to best suit the needs of the student. It also severely limits student choice, agency and interest, in an area where this has traditionally been varied.</p>
<a href="#">ANON-K9GG-182J-Q</a>	<p>I would like to see the Design internal - 1.1 being worth 4 rather than 5 credits and the other Develop internal - 1.2 being worth 6 rather than 4 credits. It takes significantly longer to learn how to write a computer program or website than it does to design one on paper.</p> <p>Concerns regarding wording: 1.1 (Internal) Design a digital technologies outcome "explores digital technologies design processes" are up for misunderstanding does this mean looking at the processes that go into creating a design ie using technology processes to design a concept etc, rather than exploring the design itself and if it is Fit For Purpose or if it is suitable to use as inspiration for the students own creations/designs.</p> <p>The use of te reo Māori "process students will engage in kōrero and wānanga" to talk and learn is strange as this will probably be written work? or is it purely annotated by the teacher? So is it to discuss and explain what they have learnt? The use of Feedback is great for the improvement of the design. Students need to be aware of the models they are making are for improvement not just to support their own design preferences.</p>
<a href="#">ANON-K9GG-18GV-R</a>	<p>There is also the limiting and continued use of computer science* terms ie "the application of design principles (such as usability heuristics)". There needs to be the inclusion of design elements alongside the principles, the principles can not be done alone - impossible!</p> <p>Heuristics is a computer science term and should not be the only example - there are film, print, web, etc there are more general design principles that do apply to all designs that could be used functionality, useability, etc</p> <p>Be nice to see the use of the words like models and risk management.</p> <p>* The subject is Digital Technology NOT Computer Science!</p> <p>1.2 (Internal) Develop a digital technologies outcome - what does this mean "students will be supported to develop an initial proposal. " A proposal is very different from a brief... and if students are given a brief and then personalise it - it is still a brief, not a PROPOSAL. a proposal goes to the client to see if it is appropriate to proceed. A brief is what a designer uses to guide the design direction and scope. A proposal DOES NOT "act as a framework for the project".</p>

Response ID	Answer
<p><a href="#">ANON-K9GG-18GX-T</a></p>	<p>Please use appropriate and accurate wording in these design internals.</p> <p>Also, it is concerning in this internal (1.2) the use of "iterative process to improve and refine their work" when the students don't need to do this for 1.1 "Design a digital technologies outcome" which is actually where it is more appropriate. If a student has developed a design, which to do probably they need to have modelled and tested their ideas. During the development phase, it is about skill and completing a functional prototype - as they have the brief (proposal) and their models there is way less need for iterative improvements at the prototype stage. 1.2 "Students will anticipate and find solutions to problems" these should have been found at the Design phase its too late when you are making a completed prototype or final outcome.</p> <p>This sentence is also an odd one - unless it is going to be across all standards at NCEA Level 1. How on earth does a teacher measure students ability to "exercise agency and practice" perseverance."</p> <p>The largest problem I can see with the standards proposed is that having one standard to represent any digital media outcome is overly restrictive. Throughout the year, students will often create multiple digital media outcomes and I believe that standards should be created for any common outcomes that students may create, i.e. websites, programs, databases etc.</p> <p>Having only one standard for this, then creating two standards which mostly involve writing I believe stands against the passions of the students. Generally speaking, I believe students take Digital Technology to create things, not to write about what they will create. It is fair to say that reports are a necessity and holds real world application, however in my opinion we should first cultivate students' interest in the subject; perhaps report writing standards should be delegated to level 2 or 3 standards instead.</p> <p>I also believe that in general, a report writing standard that lasts for 1 term is a bit excessive, and can make or break students' interest in the subject, so even if these standards were provided to students in Level 2 or 3, I think it's better if they were shortened.</p> <p>Two main comments.</p> <p>4 standards is not enough</p> <p>New standards focus more on report writing than creating digital outcomes</p>
<p><a href="#">ANON-K9GG-18GG-9</a></p>	<p>Here are the details for my two main comments.</p> <p>4 standards is not enough</p> <p>Electronics also falls under the Digital umbrella, so students who take my subject</p>

Response ID	Answer
	<p>(Digital Technologies) won't be able to take Electronics as you can't get credits for doing the same standard twice. Currently there are just enough standards to share between Electronics and Digital Tech, but with only 4 there simply won't be enough and either electronics or digital tech will have to close.</p> <p>If a teacher is not strong at programming, they can only offer of total of 3 standards instead of 4. If Level 1 is now meant to offer a broad range (not specialize into a topic), shouldn't that mean teachers should have a larger range of standards and topics to choose from so they can choose what suits them and the students?. We currently have a range (create outcome, database, programming, proposal, design). Four standards is simply too restricted, which is the opposite of "broad". If I want a student to make a website, and then make a database, I can't as there are not enough standards to go around.</p> <p>New standards focus more on report writing than creating digital outcomes</p> <p>Students who take my class are normally not interested in writing reports and would rather make something. Of the 4 new standards only one of them allow for creating things, while two are report based, and the last one is creating a program but is probably a report because it is an external. I believe this will potentially kill the Digital Technology subject. It also means that only students that have a higher literacy will pass, so students that struggle will simply be left out and not gain the credits.</p> <p>Our current standards (1.3 data, 1.4 media) are similar to this new one. Things that I liked were that excellence are all about making a product that looks presentable. For merit it was about using testing results to improve the outcome, which although was paper work, it was also good because otherwise students do minimal testing.</p> <p>Things I didn't like about the current standards were the relevant implications. This tended to be an exercises in paperwork. For achieved they had to describe implications, which lower end students who don't like writing will struggle with, which is why they just write things like "I should only use pictures that I have permission to use" which isn't technically "describing" (more regurgitating).</p> <p>Another thing I didn't like about the current standards is that for the media and data one the merit criteria was based on their testing – in other words, paper work. This meant that when marking a web site I would check their testing document first as that would tell me if they were up for achieved only, merit or excellence. Then you would check the website second. The sad part is that even if they made a great website, their final grade would be determined by the quality of their paper work testing instead of the website (although for excellence they also needed a quality website).</p> <p>The programming external has potential. My main concern is that it is an external. This potentially means due to a lack of markers for different programming languages we will be told we must choose from a limited number of languages.</p>

Response ID	Answer
<a href="#">ANON-K9GG-18ZX-D</a>	<p>Also, due to markers not having access to the software used by students (such as installing a MySQL server etc) then they won't be able to run the program. Will this mean that students will have to produce a written portfolio and explain their code? If so, this potentially fun standard where students actually create a program will have students make their program and then run out of steam when it comes to the report to submit and therefore not gain credits due to a lack of interest in the written component.</p> <p>The outlines are very narrow. Robotics students and media design studies will be disadvantaged, the digital technology world is very broad, consisting of different skills and students will have to choose their pathways early in their education journey, at our school students do a range of technologies, this is pigeon holing them in a time when they should be experimenting with their ideas.</p> <p>Think this is more specific than what we currently have - positive</p>
<a href="#">ANON-K9GG-18ZY-E</a>	<p>Seems like stuff has been pulled down from level 2 - slightly worried about the difficulty</p> <p>Sustainability not enough of a feature - missed opportunity.</p> <p>Bias towards software - focus is on producing software on existing electronic product - no longer holistic between hardware and software</p> <p>In our school "Computer Systems and Networks and Digital Information Systems" are one subject and "Electronic Environments and Embedded Systems" are another subject.</p>
<a href="#">ANON-K9GG-18ZM-2</a>	<p>Under the current proposal, you will have reduced Digital Technologies from 11 Achievement Standards to 4 Achievement Standards. Our two subjects naturally went hand in hand and allowed students to choose both. Now students must choose between "Computing" and "Electronics" as they can no longer do both subjects at Level 1.</p> <p>Furthermore, the Matrix is vague as it needs to cover all the traditional sub-subjects. So vague that actual subject content (skills &amp; knowledge) is missing. This devalues the skills and knowledge (eg about how to program a microcontroller or solder up a circuit in a robot) and makes the focus on 'Technology' big picture/cross sub-subject skills. These are all well a good, but the hard skills focus has been reduced to no value and is in actual fact absent. As such we are no longer assessing skills, but big concepts. There is no value in "making".</p> <p>Especially external assessment conditions are not well defined for AS 1.4.</p>
<a href="#">ANON-K9GG-18WK-W</a>	<p>What will the assessment contain given that the AS1.4 requires the student to write code, test, debug and refine for efficiency. Given the external exam has time constraint of say 3hrs, students do not have fair time to meet the requirements of the standard.</p> <p>Will students get assessed over a long period of time (managed by the school) but submitted for grading by external assessor?</p>

Response ID	Answer
<a href="#">ANON-K9GG-18JZ-Y</a>	<p>The 2nd course outline at least looks coherent if you wanted to build robots. The first is a mishmash of skills and ideas - and exemplifies one of the fundamental problems with DT as it is. Much of the current practice in DT classrooms could be done in other subjects... particularly all the media stuff. Animation, blender... its about using an existing technology to creat a "pretty". Electronics could be in Physics. Who does the infratstructure one? It was always going to be too hard to implement in schools.</p> <p>That leaves eg: spreadsheets and Database and web and programming and CS theory. Arguably this is all that should be in a DT course. These topics should be about learning the skills, not to pretend you are a fully fledged professional that can go out interview your end users, design and build (Iteratively ?!) and reflect on that process. Engaging students in DT and not in endless writing is what we need to be doing.</p> <p>To come back to iteration,,,, I'd challenge any high school kid to write any program of substance correctly yhe first time. They will inevitably fix bugs, re-factor code etc. Why on earth make them stop and record and reflect on this. Their brain needs to be engaged on the problem on hand, not recording the fact that they made a mistake. (Deliberately to meet the standards??)</p> <p>Relevant Implications... if you are tempted... Don't!</p> <p>Please use this opportunity to ensure kids have enough time to practice the actual skills and not (waste) precious hours on writing up stuff that they can't possibly fully understand until they have many many hours of practicing the actual skill.</p> <p>I run the Olym;piad in Informatics program in New Zealand. I belong to SONZ - a group formed of all the Science Olympiads. NONE of the other subject representatives have to rely on kid's own motivation to find us. They can develop programs for schools that attract eg: the scholarship students to enter their contests. But those students arrive at the contest or camp already well versed in their subject. This is NOT the case for Programming..if a student is any good at it, it is NOT because she or he took DT. Even if they did programming, they didn't have enough practice in seeing novel problems to use the programming constructs they know to solve. And then they don't take DT past level 1 because they get to program for 8 weeks, and then pretty much WRITE for the rest of the year.</p> <p>One ex Olympiad student said he wrote more for a level 1 standard (design) than he did for his first year software engineering project. And he couldn't comment on levels 2 or 3 because he dropped it.</p> <p>The ability to do a little real CS style programming was offered in level 3 with stacks and queues. It would be interesting to find out from NZQA how often that option was used to illustrate complex techniques. My guess is miniscule.</p> <p>I would plead... please use this review to step back and examine what really needs to be in a DT course and then focus on giving students the chance to actullay practice the skills. One of those outlines had programming for 8 weeks. You CANNOT teach most year 11 student to use the relevant constructs (to their year level) to solve a novel problem in 8 weeks. Surely thats the point of teaching programming? Not to show them syntax and how to solve ONE problem, then</p>

Response ID	Answer
<a href="#">ANON-K9GG-18JC-8</a>	<p>mirror that in the assessment. (I fear the external proposed may do precisely that... signal the style of problem then everyone gears their teaching to that) . I have taught secondary and tertiary introductory programming - it takes more than the signalled 6 to 8 weeks to get to that level of competency. Take away all the "technology paradigm" stuff, give kids time to learn and practice the "doing" stuff!!</p> <p>The beginning learning notes make sense, is there any way to condense it and make it less onerous? Some of the levels from 1-3 do not quite make sense on the download as steps. They might need lining-up so they connect better. The teaching templates are helpful to understand how this could be taught and I look forward to seeing more from different options to build our own ones off. But also, visual examples of projects in that area would be great, because not having exemplars for Digital Technology recently made marking very much in the dark, especially if you were new to the subject.</p> <p>The area that needs altering the most is the assessment standards. I feel what is said on the learning notes, which is fantastic, is not reflected in the standards at present. We feel like the current proposed parts can be included in the sub-notes of the title to keep the standard name shorter, concise and easier for the community to understand. Looking at the needs across all of the Technology subjects listed matching the curriculum is important, at the moment they are quite subject driven and not as flexible as they could be. There is a possibility at Level 1 for assessment they could just be called "Technology" and not have subject names at all, because much of these credits will be pulled across one another for each student in a subject to build their individual program in an ideal world. As we do the design process to come up with innovative designs, my suggestion below has each area has a start, development, making and presenting. The current concepts of the standards explanations are relevant, I would just shuffle the credits and some Internal/External ideas and put them in order of the design process, even if a teacher does not do them in order of the process, it still helps to sequence it logically. Since these should be considered snapshots of assessment, they should not be too detailed. The weight on the beginning of the process should be higher than making the outcome which is more skills and finished product. This gives students the emphasis of ideas and thinking is more important skills to lead to more considered craft and final outcome.</p> <p><b>DVC</b></p> <ul style="list-style-type: none"> <li>1.1 Initiate design ideas through exploration. Internal. 6</li> <li>1.2 (1.4) Develop a spatial design. Internal. 6</li> <li>1.3 Communicate technical components of a design. External. 4</li> <li>1.4 (1.2) Exhibit an outcome. External. 4</li> </ul> <p><b>Materials</b></p> <ul style="list-style-type: none"> <li>1.1 Plan a design outcome. Internal. 6</li> <li>1.2 Develop a product design. Internal. 6</li> <li>1.3 Construct a design. External. 4</li> <li>1.4 (new) Model an outcome. External. 4</li> </ul> <p><b>Digital</b></p> <ul style="list-style-type: none"> <li>1.1 (1.1+1.3) Investigate the impacts in design. Internal. 6</li> <li>1.2 Develop a digital design. Internal. 6</li> <li>1.3 Apply computational thinking to create an outcome. External. 4</li> </ul>

Response ID	Answer
	<p>1.4 (new) Present an outcome. External. 4</p> <p>Suggesting a range of possibilities for students to be inspired for their starting points are better than locking it down to including Maori and other. I always encourage my students to include cultural aspects in their projects. but stating it at Level 1 makes the courses less flexible, it just means we cannot teach our dream courses which are independent for each student and their passions. Weather it is written in or not, Professional Development would be greatly received towards how to include Maori components in our designs and how to not make it tokenistic.</p> <p>I am also concerned about condensing flexibility and the flow onto level 2, because I have multilevel classes and subjects often all at once. I teach L1+2+3 DVC and Digital at once. I need the course to be streamlined into a process at each level, so I am not teaching 6 different programs in 1 hour. Currently I do go a bit batty saying Designer/Movement/Era/Anything to the correct level in DVC! Digital has taken a dive because their program has too much writing. Often students want to be inspired by not just that, but the standard asks for specifics which makes them work harder just because they are doing what they need and what they have to do to tick off assessment. I can see that happening if you write in those details.</p> <p>I agree, less weighting on writing is key for Technology. It is good the reporting and exams have gone. It would be much easier to mark externals regionally where teachers mark their own projects and then visit other schools locally and see their showcase and cross-mark 4 samples from that each year level. N/A/M/E. That we have 1 day to make all 3 levels with 2 teachers visiting both schools. There is a random generated list of teachers and nearby schools. I do not like the sending all the work away system at the moment and the marks come back so random without any feedback, the marking changes each year. It doesn't help when you don't know the student's story behind their work for externals. This idea becomes less about assessment and more about professional development and a sense of community. They then be included in the external moderation too for another standard check with feedback.</p> <p>Technology</p> <ul style="list-style-type: none"> <li>Plan a design outcome. Internal. 6</li> <li>Investigate the impacts in design. Internal. 6</li> <li>Initiate design ideas though exploration. Internal. 6</li> <li>Develop a spatial design. Internal. 6</li> <li>Develop a product design. Internal. 6</li> <li>Develop a digital design. Internal. 6</li> <li>Communicate technical components of a design. External. 4</li> <li>Construct a design. External. 4</li> <li>Apply computational thinking to create an outcome. External. 4</li> <li>Exhibit an outcome. External. 4</li> <li>Model an outcome. External. 4</li> <li>Present an outcome. External. 4</li> </ul> <p><a href="#">ANON-K9GG-18B7-M</a></p> <p>The proposed standards don't make it easy (?or even possible) for teachers to cover a wide range of 'doing' outcomes and assess / award credits for all of them. The standard names / descriptions make it look like the idea is to assess one</p>

Response ID	Answer
	<p>large project where students have designed, planned and made only one outcome. Which is not going to encourage teachers to offer a course that teaches a broad range of skills. Is this what NZQA intended? Students work best when they can see a concrete reward for their efforts and whilst it would be wonderful if everyone did the work because it was fun, interesting and potentially useful - students prioritise tasks that are worth credits. Ideally I'd like to be able to offer students credits for creating a website, database, print outcome and basic programming. The above standards don't really let me do that.</p> <p>The '1.4 explore the impact of digital technologies' external is simply awful - it involves far too much writing could easily be replaced by a standard that allows students to do something practical. As this is an external, the marking could be done in a similar way to what currently happens in Visual Arts. Alternately, this standard could be replaced with a standard that encourages students to delve into concepts related to Human Computer Interaction (Usability) and discuss how they have ensured that the outcomes made during the year are usable (and how the usability could be further improved).</p> <p>Standards 1.1 and 1.2 also need to be adjusted so that teachers have the option of offering (and assessing) students on more than one skill. To do this, instead of having 'design' as a single standard and 'develop' as a different standard, we could have two standards that are 'design and / or develop' where students could be assessed on both the design and the outcome (it does not make sense to develop a website and not make it) or they could be assessed separately (designing an animation and then developing it might provide enough evidence for two standards). It should be easy enough to put safeguards in place to ensure that there is no double dipping (assessing two of the same type of outcome would not be in the spirit of this proposal). An advantage of this approach is that the standards would look the same - the only difference would be around ensuring that teachers don't double dip. They would either need to focus on one large project and provide detailed design work and a working prototype or they would have the option of creating two different outcomes where students have put some thought into the design of each outcome.</p> <p>I looked at the Teaching outlines and was horrified. There is insufficient focus on practical skills and far too much writing. There is little resemblance between the outlines and what I currently do / would like to do.</p> <p>There is nothing there for print / web /database outcomes and whilst we could develop this ourselves it is just more work to do.</p> <p>I'll say it again - there is far too much writing and not enough doing!! I want an outline where my students can...</p> <ul style="list-style-type: none"> <li>- create a website using html, css and images that they have either made themselves or sourced from the public domain</li> <li>- create a database back end for their website using simple php / sql</li> <li>- create a print outcome like a brochure / poster where they use design skills and industry standard software</li> <li>- create programs!! (to be fair, this last one is in one of the outcomes)</li> </ul> <p>There should be the space for students to develop animation, video if they wish. Not all schools have the gear / expertise for robotics / electronics and even</p>

Response ID	Answer
<a href="#">ANON-K9GG-1869-A</a>	<p>students thrive when they are doing - not writing about doing.</p> <p>I don't need my students to do a lot of writing. Their outcomes do need to be suitable for their community and they absolutely must be easy to use / functional.</p> <p>Where are the usability heuristics? Those have been buried somewhere in the fluff. I need externals where it is easy for students to achieve and the requirements are crystal clear with no need for guesswork.</p> <p>I am deeply concerned about the standards / outlines in their current form as they won't do what we need and won't serve our students well. We've heard that students need a broad education but these standards really limit what we'd do at level 1 as if it's not worth credits, students are not all that interested.</p> <p>Too much emphasis on writing rather than doing.  Programming standard should NOT BE EXTERNAL  Framework doesn't allow much scope for a selection of course designs such as Electronics, Designing Digital Outcomes, Computational Thinking.  1.3 This standard will not appeal to many students (and teachers) and I would choose not to do this standard with their classes.</p>
<a href="#">ANON-K9GG-189T-8</a>	<p>External assessment for 1.4 is not well defined - this absolutely should not be an exam - completely inappropriate for demonstrating understanding of computational thinking - potential to massively disadvantage priority learners.</p> <p>Are we expected to cover all the criteria for each level or can we select some of these areas only.</p> <p>Many of the statements are vague or non-sensical.</p>
<a href="#">ANON-K9GG-18HT-Q</a>	<p>Too much emphasis on 'social implications' at the expense of subject specific learning. As an example, 'write and debug advanced computer programs' is just one bullet point out of 8 generic type of focus at Level 2.</p> <p>'Computer Science' appears to be less significant than the 'social implications'.</p> <p>Far too much content to deliver in one year (especially whilst running open entry programmes).</p> <p>Three areas that need urgent attention to meet the needs of Teaching and Learning of Digital Technologies in Aotearoa:</p>
<a href="#">ANON-K9GG-1885-8</a>	<p>1. Including a te ao Māori perspective. Teachers need a "generic" resource provided by the MOE to refer to when teaching the views from a Māori perspective. This must be a resource that comes from the top and is correct on "what is a Maori perspective". As teachers could potentially cause offence and teach incorrectly to the views of a Maori perspective. We need a "common" resource for all schools/teachers to use so it is consistent and correct across education in Aotearoa.</p> <p>2. 1.4 (External) Apply computational thinking skills in a programming context. This standard is NOT Suitable for an External. Students need time to "trial and test" code to debug and version so the code/program works. 1.4 should be in an</p>

Response ID	Answer
<p><a href="#">ANON-K9GG-18AY-N</a></p>	<p>(Internal) setting. By changing to an internal it will allow students time to deepen their understanding and learn best practices for programming/computer science.</p> <p>3. The current 4 Standards are limiting students and their choice. We need extra standards as Science has been arguing for and won. We need Digital Technologies standards to cover 3 Key Outcomes across 2 Standards Computer Science and Digital Media. We should have at least 6 standards to cover Programming, Databases and Websites.</p> <p>It is disappointing seeing the externals (computer science 1.4). It is suggested that this standard be changed to an internal and it swapped with either the 1.1 or 1.2 standard as some students will have major difficulties coding in an exam situation. With no exemplars to go by and no feedback from moderators who mark the externals this needs to change.</p> <p>Have we diluted our subject expertise into computer science only? What about website development, databases, networking, animation, print/media, hardware, robotics, electronics, networking, etc. It is extremely unfair having 1.3 as the only option, this is an extremely narrow focus limiting student learning. It appears we need two separate subjects where it is DIT (computer science) and DIT (website development, databases, networking, animation, print/media, hardware, robotics, electronics, networking).</p> <p>In addition, where do unit standards fit into the picture for those students who are not linguistic and able to write reports? We are doing a disservice to the subject area in heavily focusing learning on your ability to articulate and write a report. Some of the most gifted programmers, animators, app developers, graphic media/print designers are ESOL or international students, as well as kiwis who struggle to understand the difference between language concepts i.e. discuss, explain, evaluates etc.</p> <p>- Digital Technologies as a general subject is OK at year 11 but not at year 12 and 13. We have a strong program where we offer Computer Science and Digital Media at year 12 and 13. The content taught is very different and not all DT teachers are able to teach both. We have students who take both courses and it allows our Kura to cater better for student interests and pathways. If science can be separated out into different disciplines then so can we, the curriculum states we have two areas (DDDO and CT). Do not discriminate against us because we are a newer area of learning.</p>
<p><a href="#">ANON-K9GG-18A7-K</a></p>	<p>- Do not make programming an exam. Our students really enjoy the current programming unit and the opportunities it offers to develop creativity and innovation as well as developing and assessing their programming skills. The project-based approach also offers assesses more opportunities find to naturally occurring evidence in students work. If it has to be external, please make it a portfolio.</p> <p>- The knowledge standard (1.3) should be worth 3 or 4 credits and the programing (1.4) and develop a digital outcome standard (1.2) should be worth 6. Creating digital outcomes take a lot of time and effort.</p> <p>- Generally, the standards that have been presented are underwhelming and you</p>

Response ID	Answer
<p data-bbox="224 1121 326 1213"><a href="#">ANON-K9GG-18YG-U</a></p> <p data-bbox="224 1730 326 1822"><a href="#">ANON-K9GG-18T8-7</a></p>	<p data-bbox="394 260 1373 415">have missed an opportunity to create a hands-on practical subject that fosters creativity and innovation. Maybe the knowledge (AS1.3) standard could be another practical standard ??? Students are here to create, we can teach the knowledge to our students while doing this. We don't necessarily have to assess it.</p> <p data-bbox="394 449 1398 667">- When I spoke to my current students about these they thought it looked boring and said "it looks like paper tech, not digital tech". We have a strong DT program running at the moment and I am very concerned our numbers are going to decrease because of this. We need to make DT and fun and engaging as possible to keep students in the subject and inspire them to work in the industry. We are already battling stereotypes to get students into the subject. Please do not make it harder.</p> <p data-bbox="394 695 1365 850">There is a shortage of specialist Digital Technologies teachers nationwide and many schools do not have the teachers, equipment / expertise in a range of DT especially for programming and robotics / electronics. How do these standards cater for those teachers providing programmes of learning that are digital media based? Standards must be broad and allow for a large range of outcomes.</p> <p data-bbox="394 884 1370 1039">Teaching outlines have insufficient focus on practical skills and far too much writing. Two of the standards look to be report based which will disadvantage a large number of students especially those with limited literacy. Students thrive when they are doing - not writing about doing. We are trying to encourage broad skills and learning at Level 1.</p> <p data-bbox="394 1073 1365 1228">The terminology needs to be clearer especially around users/stakeholders/implications/conventions/iteration, eg focus on users is too narrow and should include broader stakeholders. Terms should also be industry based with guidance given so every teacher is not guessing/trying to interpret what is meant.</p> <p data-bbox="394 1262 1393 1354">There is a missed opportunity here in terms of teaching students the basics of UI / UX / Usability Heuristics which could easily include cultural perspectives in a way that is exciting, natural and, most importantly more authentic.</p> <p data-bbox="394 1388 1370 1480">I am also concerned that in an age when environmental impact/sustainability is critical this has not been explicitly addressed in the content (only implicitly under te ao Māori).</p> <p data-bbox="394 1514 1370 1640">The way externals are assessed needs to be discussed (especially for programming) with teachers and subject associations to achieve the best format possible for students to be able to show their understanding eg reports disadvantage a large number of students.</p> <p data-bbox="394 1673 1398 1883">We feel the proposed changes are too many too soon after introducing the Revised Technology Curriculum. To deliver the new curriculum, we spent a lot of time understanding and implementing the Revised Technology Curriculum and new Digital Technologies standards. We are still trying to understand and make sense of those changes. However, the proposed changes appear like a significant revision of current content, delivery and assessment. As a department we believe, there should be more focus on making the product (DDDO) using computational</p>

Response ID	Answer
<p data-bbox="224 835 321 930"><a href="#">ANON-K9GG-18DD-3</a></p> <p data-bbox="224 1619 321 1713"><a href="#">ANON-K9GG-18N7-Z</a></p>	<p data-bbox="394 262 1369 323">thinking. Still, the current changes appear like there is more work for students to produce a lot of paperwork in evidence.</p> <p data-bbox="394 350 1393 600">Learning matrix is clear. Course outlines and standards are vague and will lead to issues regarding consistency across the country. Standards need a technology update that is published in the preceeding year to cover what is required at basic, advanced and complex levels for the different standards and for the different digital technology outcomes. e.g. what is basic, advanced and complex for 3D modelling; animation; game design; data management; programming; robotics; electronics; image, video and audio; web development. Can students specialise in one, should Level 1 provide a range of options to allow for specialisation later.</p> <p data-bbox="394 632 732 661">Assessment - still to vague.</p> <p data-bbox="394 665 1386 785">1.1 Design - some projects lead themselves better to a design process. It seems strange that the proposal is not part of this standard and is part of 1.2. Surely a logical step is to propose a digital technology outcome and then develop a design for it.</p> <p data-bbox="394 789 1386 976">1.2. Develop DT Outcome - Proposal seems to fit with 1.1 better. The range of tools for digital outcomes needs to be outlined and be separate from the standard (like a technology update <a href="https://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-igcse-information-and-communication-technology-0417/">https://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-igcse-information-and-communication-technology-0417/</a>). A lot of features that would have in the past been considered difficult can now be completed using premade filters or plugins.</p> <p data-bbox="394 980 1377 1041">1.3 - Ok, will there be a range of topics that can be investigated each year that change. Will they need to examine an unfamiliar context to check understanding.</p> <p data-bbox="394 1045 1393 1325">1.4 - Should be an on computer assessment in controlled conditions. Preferably an exam style with multiple short questions to check application of knowledge and unserstanding. Would require a range of programming languages to be available. Would have concerns if project went the way of the current UK GCSE Computer Science work. Can limit to 5 or so languages e.g. Python, C#, Java, VB.net Provide a skeleton program and/or scenario pre-release 2-3 weeks before the exam. This can have errors in the code and examples of global and local variables with different data types. Students can then code in the missing functions, add in variables etc to complete the task.</p> <p data-bbox="394 1329 1373 1390">Additional pseudocode and programs can be provided with students expected to answer these questions.</p> <p data-bbox="394 1394 1369 1423">This external should run in the NCEA external exam window and not separately.</p> <p data-bbox="394 1446 1289 1507">The new standards and sample course outlines are interesting. There are positives in this approach, but I have concerns.</p> <p data-bbox="394 1512 1386 1698">Firstly, I am concerned about schools (such as mine) that currently offer separate courses such as "Robotics" and "Computer Studies". In the past, we have been able to create courses that don't have too much overlap, so that students can do both. This will clearly no longer be the case. Those students who want to do both are often the real enthusiasts in the subject, and it is a shame to constrain them from doing both subjects.</p> <p data-bbox="394 1703 1386 1885">Secondly, I worry about how well the external assessment of programming will be implemented. This is an absolutely key aspect of the curriculum area, and "exams" are typically not a good way to assess the wider range of what being a programmer entails. Programmers do not just write snippets of code in response to exam questions – they craft and manage large projects, they design robust programs, they research technologies and techniques etc etc. It may be that the</p>

Response ID	Answer
<p><a href="#">ANON-K9GG-18NX-1</a></p>	<p>assessment mode is not going to be an exam, but this is not clear from the available materials.</p> <p>Thirdly, I worry that it is going to be much harder to cover the concepts of databases, within the context of “Design” and “Develop” media outcomes. Databases can be a bit of a “dry” topic, but database concepts are so fundamental in so many areas of digital technologies that it seems incorrect to be removing them from students education.</p> <p>Fourthly, it is clear that the “Design” and “Develop” standards really need to be assessed together. It is not sensible to have 5 credits for designing an outcome, without actually creating it. This is not necessarily a problem, but it will take considerable skill and planning to keep such a project from being a drawn-out exercise in documentation, rather than the hands-on exercise in digital creation that it should be.</p> <p>Finally, I’m worried that the way this progresses through year 12 and year 13 will end up reducing flexibility. For instance, at year 13 our students currently make a web application that uses a Python program to talk to a database and then generates interactive html pages. This integrates the UX standard, the database standard, the digital media outcome standard and the programming standard. I’m struggling to see how I could fit the best bits of this into a similar kind of structure of standards (which I’m assuming is what will happen – it would be nice to know what NZQA thinking is on this!)</p> <p>The two areas of digital technologies are quite different. Schools have spent the last four years embedding the new pathways and by giving this area only '4' standards you are undoing the work that has just been done.</p> <p>This area needs a minimum of 6 standards so that both pathways can be maintained. This is a STEM subject and one we need an uptake of students in for our future workforce. Design in DIT is very different from programming in computer science - and students should have that choice.</p> <p>It is undoing the hard work that has been done; it will lead to a reduction of student numbers which is not what this country needs.</p> <p>You are undoing the very essence of what you have spent the last four years getting schools to achieve.</p>
<p><a href="#">ANON-K9GG-18N4-W</a></p>	<p>I think it is interesting making the programming assessment external. It does mean that there will need to be a change of landscape for how programming is currently taught. I believe this is for the better given that most DT teachers don't know how to program. I wonder should the design and outcome really be split as two separate internals given that they go hand-in-hand. Making them as one gives more space for another area of DT to be implemented although I can see the reason for doing so.</p>
<p><a href="#">ANON-K9GG-18FJ-B</a></p>	<p>We are disappointed the Ministry of Education and their views on assessment for Level 1. It limits student participation and closes off pathways that were previously available.</p> <p>Previously the pathways had room for a student wanting to do electronics, digital media, information/data management, programming, and networking. however the current standards would only allow one direction.</p> <p>I don't know who decided that all subjects must only have 4 standards, but clearly this wasn't thought through properly.</p>

Response ID	Answer
	<p>Perhaps it could work if we broke into three different subjects: Digital Outcomes &amp; Computer Science, Mechatronics.</p> <p>This would allow kids to undertake everything and would be well suited</p> <p>I am concerned with the structure of 1.3:</p> <p>The assessment is interesting, and I don't mind the idea that it has a little bit of social science in it.</p> <p>I think that the impact of digital technology side of it however requires a higher level of abstract thought then what may be required at level 1.</p> <p>When we think of SOLO taxonomy</p> <p><a href="http://pamhook.com/solo-taxonomy/">http://pamhook.com/solo-taxonomy/</a></p> <p>We need to consider what the different levels will look like</p> <p>Pre-Structural - Not Attempted</p> <p>Uni-structural - Not Achieved</p> <p>Multi-structural - Achieved</p> <p>Relational - Merit/Excellence (depending on paper)</p> <p>Extended Abstract - Excellence</p> <p>In the past externals, this has been quite an obvious pathway where students have started with the technology and then worked their way to the conclusion which was the extended abstract thinking around impact. This worked really well.</p> <p>I think this way is slightly backwards where the impact is first then we talk about the technology. I feel that impact as find, but we have to be careful we are not talking at an extended abstract level starting off with.</p> <p>This would be a good opportunity to bring in a te ao Maori perspective. However I think they have reversed the order to make the perspective more relevant to a computer science setting.</p>
<p><a href="#">ANON-K9GG-18F8-S</a></p>	<p>Doesn't allow room for the multiple disciplines that exist inside the digital technology framework. Students cannot study multiple disciplines.</p>

Response ID	Answer
<a href="#">ANON-K9GG-18FY-T</a>	<p>I have issues with the very left political views that these assessments are pushing, which involves a limited view that there is Māori and non Māori knowledge.</p> <p>Read the feedback on the next post to get a deeper understanding.</p>
<a href="#">ANON-K9GG-185X-8</a>	<p>The internals seem to merge existing internals into two well The proposal is part of 1.2 and not 1.1 where the other design aspects are. What form will the externals take in terms of student evidence?</p> <p>Overall the Big Ideas seem good. For Levels 6,7 &amp; 8 of the Learning Matrix the statements of what students will learn provide guidance of the different topics to be covered but are general enough to allow for flexibility in programme design by teachers. Why then is data compression specifically mentioned at Level 6? Shouldn't this be phrased in more general terms regarding the overall Computer Science concept(s) that aim to be covered. From the sample course outlines, I am unclear about how many standards Teachers will be expected to offer. All 4 seem to be on offer in each course - how does this fit with the key idea of the RAS that less formal assessment be offered. Teachers are likely to assess 3 standards only and teach the content for those, not cover all 4 as implied in the sample course outlines - so I didn't find these course outlines realistic. In terms of Assessment, I am very concerned that 1.4 is an external. It is unclear how this will work in practice. If it is some kind of end of year exam then that is not appropriate and will disadvantage a lot of students. It will also be very hard to administer and I worry that it may result in limiting teacher choice about what programming languages they teach. If it is a portfolio submitted such as in DVC or Art then that may possibly work, but it doesn't really allow for in depth checking of understanding of the student's knowledge. As an internal, classroom teachers have the time to thoroughly test a student's code when marking it. This also includes checking for things such as style, efficiency - which I don't believe external markers would have time to look for and I don't feel confident that an automated marking system could do this as well as classroom teachers. I therefore strongly urge that 1.4 be made an internal. 1.1 could be submitted as a portfolio and work well as an external in place of 1.4</p>
<a href="#">ANON-K9GG-183R-Z</a>	
<a href="#">ANON-K9GG-1N22-N</a>	<p>Standards have been removed already!</p>
<a href="#">ANON-K9GG-1NGF-X</a>	<p>TENZ received very few expressions of concern in this area. However there are clear issues around consistency across subjects, with the draft standards in Digital Technologies being succinct and broad alongside the more convoluted expectations of the other Technology draft standards. Clearer guidelines on standard names across subjects could make supporting teachers much easier.</p>
<a href="#">ANON-K9GG-1NGZ-J</a>	<p>I much prefer the second course outline as it is more detailed and gives a much clearer understanding of what they are trying to achieve.</p>

Mana ōrite

57 answers to "Mana orite impressions - Digi Tech - Does the Learning Matrix show mātauranga Māori is appropriately woven throughout?"

Option	Total	Percent
On the right track	<a href="#">24</a>	2.10%
Needs amendments	<a href="#">33</a>	2.89%
Not Answered	<a href="#">1085</a>	95.01%

55 answers to "Mana orite impressions - Digi Tech - Does the Teaching, Learning, and Assessment Guide explain how the subject supports ākonga Māori to succeed as Māori?"

Option	Total	Percent
On the right track	<a href="#">19</a>	1.66%
Needs amendments	<a href="#">36</a>	3.15%
Not Answered	<a href="#">1087</a>	95.18%

54 answers to "Mana orite impressions - Digi Tech - Do the Course Outlines demonstrate how teaching and learning could be grounded in mātauranga Māori?"

Option	Total	Percent
On the right track	<a href="#">17</a>	1.49%
Needs amendments	<a href="#">37</a>	3.24%
Not Answered	<a href="#">1088</a>	95.27%

46 answers to "Mana orite comments - Digi Tech"

Response ID	Answer
<a href="#">ANON-K9GG-12XN-U</a>	Mana Ōrite mō te Mātauranga Māori is one of the biggest shifts of the NCEA Change Package, this is an aspect that will require ongoing development and support for staff and students to understand and implement in the classroom.
<a href="#">ANON-K9GG-12QZ-Z</a>	I am not experienced enough in Te Reo.
<a href="#">ANON-K9GG-12SC-B</a>	Is this embedded into the course or taught to non-Maori as well? it's unclear.
<a href="#">ANON-K9GG-12GM-9</a>	There are references - but not much support or explanation of what this really means for the students
<a href="#">ANON-K9GG-12VF-H</a>	I think it is great how opportunities are made available to include mātauranga Māori without making it overwhelming. I like how relevant consideration of te ao Māori is required (e.g. when considering the appropriateness of a design) without the context being limited in such a way as to exclude other issues.
<a href="#">ANON-K9GG-12VT-Y</a>	I can see how mātauranga Māori has been included, but there is going to be a lot of demand for resources to help in teaching this - I certainly feel underequipped to do this justice.



Response ID	Answer
<a href="#">ANON-K9GG-129J-R</a>	<p>A Question: Is the Maori perspective being contrived, maybe as a square peg, being force to fit a round hole so to speak or is it a valid perspective for the particular standards/outcomes to which it is being applied especially in Digital Technologies and Computer Science. For example, if a student is making a music database of a different cultures music or a selection of music track using international genre for their dad, etc.</p> <p>Obviously, in other contexts a Maori perspective would apply. I believe this needs some deeper thinking before proceeding</p>
<a href="#">ANON-K9GG-12RY-Z</a>	<p>We need to know we can trust how to implement this into our teaching programmes without extra burden on individual teachers. If assessments need to be standardised, so should the language used within them.</p>
<a href="#">ANON-K9GG-12EY-K</a>	<p>Our children are growing up in a global culture. I think that enforcing Te Reo integration (that internationally is useless!) is incredibly wrong. Digital technologies should be just that. I'd like to see you thinking big picture and working to empower our children to compete in this global economy that exists in the IT world. We currently do not have enough people doing this. Focus on teaching them what they need to succeed.</p>
<a href="#">ANON-K9GG-12E7-H</a>	<p>The official wording is to provide a pathway? Why does it have to be woven throughout?</p> <p>I am also worried that I would have to talk about Maori spirituality? What does that have to do with digital technology?</p> <p>Please add it as a "you could do this" rather than a "you must do this"</p>
<a href="#">ANON-K9GG-12NH-B</a>	<p>It is difficult to tell at present. The compulsory nature of some of it feels contrived, and not all DT outcomes are going to be relevant to Māori contexts or perspectives. Or they may only be relevant in a tiny way and then it feels tokenistic and unauthentic.</p>
<a href="#">ANON-K9GG-12FD-Y</a>	<p>There is only one standard that refers to mātauranga Māori which feels more like a social science standard than a digital standard. More work needs to be put in to appropriately blend DT HM with mātauranga Māori. Perhaps look at the Māori medium standards we currently have in the DT HM learning area to help.</p>
<a href="#">ANON-K9GG-125T-X</a>	<p>Everything seems token and contrived and I would have no idea where to even start.</p> <p>As per usual, the promised guides and exemplars and PLD (which never appeared last time ) will never appear this time. How are we to be upskilled in the Māori concepts without support?</p>
<a href="#">ANON-K9GG-18X3-6</a>	<p>The introduction of Maori principles is commendable but lackluster as the knowledge around these principles is low and the interpretation of the words and their meanings can vary by region. Students will be asked to consider Maori principles that they don't know themselves, and will need to rely on Digital Technology teachers to teach these principles, without the teachers themselves having the proper understanding of what these principles mean and in what context they are often used. It reads as lip service to the inclusion of Maori culture.</p>

Response ID	Answer
<a href="#">ANON-K9GG-187H-T</a>	<p>I am a strong supporter of cultural responsiveness in a class room including topics and points of view but I feel that the assessments criteria are very personal . I mean for classes all over NZ to some how " compare the impacts of digital technologies outcomes and concepts from a range of social and cultural perspectives (including mātauranga Māori)" especially if your class is pakeha and Pacifica... so the range is three perspectives BUT if a class is only pakeha how and where do we get that range of perspective from?</p> <p>To discuss on the impact of say the mobile phone on teens in NZ? Where does that information come from? Does each school do a survey and what crate their own data... and as these impacts will constantly change it is a very limited view.</p>
<a href="#">ANON-K9GG-18GV-R</a>	<p>At times it is very token and not appropriately used. Users are all peoples but careful of reverse racism.</p> <p>Teachers will need support on defining examples of what a Te ao Maori perspective looks like when creating a website, database, or print media. I wonder if teachers will simply replace the English word with a Maori one but still do things exactly the same as they did before. I have heard some teachers say that?</p>
<a href="#">ANON-K9GG-18GG-9</a>	<p>I may be wrong, but a Maori perspective could be to value education, value the natural resources around us, value the connections between family now and in the past. While these are good to include, they are not just limited to Maori as other cultures also value these things. I understand that here in NZ we need to include a Maori perspective more than we have, but we also need to remember that NZ is not just made up of Maori and Pakeha, but there are lots of cultures that should be included. Maybe instead of having a Maori perspective we could have a culturally sensitive perspective, which a teacher could then adapt to suit the students in the class (if a class is mainly Chinese, then use a Chinese lens).</p>
<a href="#">ANON-K9GG-18ZX-D</a>	<p>I hope that the hard work teachers have been through in the past 5 years, setting up this subject doesn't go to waste.</p> <p>Maori aspects are vague compared to Materials and Processing - needs actual examples of what these concepts would look like. Application of Maori concepts in relation to tangible outcome needed - more similar to the 1.2 Materials and processing standard.</p>
<a href="#">ANON-K9GG-18ZY-E</a>	<p>One example could be tangi - systems around this have changed over time - people living internationally and needing to communicate etc. looking at how technology can/does intersect with cultural traditions - students will have to engage with these ways doing.</p> <p>Words like korero and akonga at a glance makes it look like Matauranga maori is more of a feature than it is but its misleading - just maori words for stuff we already do</p>
<a href="#">ANON-K9GG-18WK-W</a>	<p>Course outlines need to define in detail how the external assessment will be carried out esp. for programming topic (AS 1.4 Apply computational thinking skills in a programming context (external)).</p> <p>What will the assessment contain given that the AS1.4 requires the student to</p>

Response ID	Answer
	<p>write code, test, debug and refine for efficiency. Given the external exam has time constraint of say 3hrs, students do not have fair time to meet the requirements of the standard.</p> <p>Examination mode of assessment is inappropriate for this standard. External assessment is ok but not as an exam with a fixed time frame</p>
<a href="#">ANON-K9GG-18JZ-Y</a>	<p>Artificial shoe-horning and a bit OTT.</p>
<a href="#">ANON-K9GG-18B7-M</a>	<p>Sorry - I don't understand Te Reo Maori well enough to comment on this.</p>
<a href="#">ANON-K9GG-1869-A</a>	<p>In some respects the matauranga maori aspect seems contrived, Digital Technologies cross the boundaries of national borders and some aspects would be irrelevant to system and software design.</p> <p>Matauranga Maori is obviously important and necessary in the New Zealand context but the subject should include a may clause to ensure that the demonstration of it is relevant to the outcomes being developed/studied by students.</p>
<a href="#">ANON-K9GG-189T-8</a>	<p>Very little here but can understand why.</p>
<a href="#">ANON-K9GG-18HT-Q</a>	<p>Need much more clarification and explanation around how this is to be delivered to clearly promote equity for all.</p>
<a href="#">ANON-K9GG-1885-8</a>	<p>Including a te ao Māori perspective. Teachers need a "generic" resource provided by the MOE to refer to when teaching the views from a Māori perspective. This must be a resource that comes from the top and is correct on "what is a Maori perspective". As teachers could potentially cause offence and teach incorrectly to the views of a Maori perspective. We need a "common" resource for all schools/teachers to use so it is consistent and correct across education in Aotearoa.</p>
<a href="#">ANON-K9GG-1885-8</a>	<p>This happened with the new "Relevant Implications". Teachers across Aotearoa did not have any resources to refer to. All schools/teachers had to make their own resources and understanding of the provided "Relevant Implications". This took a lot of time, clarification and even new learning to ensure we were delivering/teaching the "Relevant Implications" correctly to our tamariki. It MUST not happen again with the te ao Māori perspective. We need a standardized "common" resource provided by the MOE. The MOE needs to consult with local iwi/hapu to ensure they get the te ao Māori perspective resource correct as to not cause offence or incorrect views/values to Māori.</p>
<a href="#">ANON-K9GG-18AY-N</a>	<p>As a Maori DIT teacher I appreciate how the learning matrix is taking the bull by the horns with regard to maatauranga Maaori, social and cultural perspectives. My one concern or feedback is that at level 6, "understand and apply relevant design principles, usability heuristics, and te ao Maaori principles to digital technologies</p>

Response ID	Answer
	<p>outcomes." I feel that the term "te ao Maaori principles" should be removed. The term "te ao Maaori principles" is a whole teaching concept that should not be used wildly. Heuristics, and Design Principles are a completely different kaupapa to te ao Maaori principles (kawa, tikanga). Appears to look like they are throwing in concepts to please and lacks authenticity or genuine-ness (aka tokenism). As one teacher on NZDTTA pointed out, he showed his te reo students the learning matrix, "I showed the new standards to my students, even the ones who are studying Te Reo, with no comment of bias, All of them rolled their eyes at the idea it was included in everything."</p> <p>There is an imbalance and over emphasis (too many concepts that could be blended into one bullet point) where Digital Technology has to include Maaori perspectives in 3 assessments. History only has to include it in 1 assessment (<a href="https://ncea.education.govt.nz/social_sciences/history/assessment">https://ncea.education.govt.nz/social_sciences/history/assessment</a>); Social Science doesn't refer to it in any (<a href="https://ncea.education.govt.nz/social_sciences/history/assessment">https://ncea.education.govt.nz/social_sciences/history/assessment</a>).</p> <p>- Fine but if you are going to use Maori concepts, please make sure they are clearly defined in Glossary. Not all concepts in the standards are currently in the glossary.</p>
<p><a href="#">ANON-K9GG-18A7-K</a></p>	<p>- If you want this taught well you need to provide good long term PD and quality easy to understand resources that we can use with our students. I currently could not teach this and there is the risk of this becoming an afterthought for many teachers. Over half of the Technology department at my school are overseas teachers and if the MoE's answer to the teacher shortage is to bring more teachers in from overseas then we need the support to upskill these teachers.</p> <p>Teachers will need support on defining examples of what a Te ao Maori perspective looks like for a large range of digital outcomes.</p>
<p><a href="#">ANON-K9GG-18YG-U</a></p>	<p>Does every student have to be an expert at Māori issues/the Māori perspective in order to succeed? Doesn't this simply change which group is advantaged rather than making it more diverse and accessible? I am concerned that making aspects of mātauranga Māori mandatory will cause problems for teachers and make learning less relevant to a large number of NZ students.</p> <p>There is a missed opportunity here. In terms of teaching students the basics of UI / UX / Usability Heuristics these could easily include cultural perspectives in a way that is exciting, natural and, most importantly more authentic.</p>
<p><a href="#">ANON-K9GG-18T8-7</a></p>	<p>Based on the knowledge we have on Mana Ōrite mō te Mātauranga Māori, we believe the course outlines guide us how Māori contexts and approaches could be taught across a year in the subject. However, the Māori content is full of words that are open to interpretation. We need a lot more discussion, knowledge and understanding of te ao Māori.</p>
<p><a href="#">ANON-K9GG-18DD-3</a></p>	<p>Terms appear to be token and I have a concern that the implementation will place additional stress and workload issues for Māori teachers who are going to be expected to support all subject areas without additional resourcing. Careful consideration and explanation of each term used (kotahitanga, whanaungatanga, manaakitanga, wairuatanga, and tikanga) and how it applies to Digital Technologies specifically needs to be made to ensure that we are not just</p>

Response ID	Answer
<a href="#">ANON-K9GG-18NX-1</a>	<p>appropriating the terminology. e.g. some might interpret manaakitanga to be addressing social and usability aspects of DT however it is more than that.</p> <p>As this is not a 'traditional' maori resource this will need heavily resourced and PLD.</p> <p>It is also similar to DVC in that appropriation is a huge risk; and a likely outcome especially in DIT projects.</p>
<a href="#">ANON-K9GG-18N4-W</a>	<p>This is very tricky. It is going to be very difficult for teachers to implement Mana Ōrite mō te Mātauranga Māori when they are unfamiliar with the concept themselves. It's is paramount that support be given through clear exemplars and PD otherwise workload for teachers is significant as they learn to navigate the new concepts introduced. If these are not implemented well, there will be push back from teachers and students (as was with relevant implications). This is counter to the intention as it will be checking a box rather than celebrating and promoting the culture.</p>
<a href="#">ANON-K9GG-18ND-D</a>	<p>Adding to my previous response. The most difficult part is because programming and digital technologies is a western construct. When searching for resources, it is all western. It will be really challenging for teachers to create resources and tailor learning to consider learning for Maori in a digital context without any guidance.</p> <p>This would not help Māori succeed as Māori and severally limits Asian, English, Pasifika students.</p> <p>In teaching literature there is the tired old image of an examiner testing a group on animals. The test is to climb the tree, the monkey is happy, but the fish, elephant, giraffe etc are not.</p> <p>The picture is meant to illustrate how as teachers sometimes we give our students assessments and learning that doesn't fit their skill set. This can disadvantage some students while advantage others.</p>
<a href="#">ANON-K9GG-18FJ-B</a>	<p>This brings me to the three standards that require a Te Ao Māori perspective. You are forcing a particular set of skills on all students in which it doesn't necessarily match. No longer can a student simply be good at programming, they also have to be good at explaining the Te Ao Māori perspective. They can't just be a master at electronic circuitry, they have to be good at understanding the Te Ao Māori perspective.</p> <p>This actually invalidates assessment three clauses: Validity, Accuracy and Reliability.</p> <p>A bit like making a fork lift driver write an essay on the history of fork lifts in order to test his skill with the fork lift. These assessments are invalid as they are no longer testing the required skills for the students. If a student fails an assessment, because he fails to consider the Te Ao Māori perspective. Then you have not proven he is not good at electronics or animation.</p> <p>Furthermore, I started teaching at a Decile 2 school in South Auckland. I worked with many urban Māori who had no spritual/cultural connection with what the Ministry defines as the Te Ao Māori perspective. To be culturally responsive and engage with those students it was required to use pop culture in order to inspire.</p>

Response ID	Answer
<p data-bbox="224 995 315 1087"><a href="#">ANON-K9GG-18F8-S</a></p> <p data-bbox="224 1461 315 1554"><a href="#">ANON-K9GG-18FA-2</a></p>	<p data-bbox="396 264 1349 352">Teaching and Learning around marvel superheroes, Minecraft, and music was key to create buy in. Students would succeed through this sort of cultural responsiveness.</p> <p data-bbox="396 390 1395 512">I had urban Māori students in my class that were obsessed with Japanese Manga, and would moan and complain if I ever brought up a Te Ao Māori perspective. I was involved with Te Kotahitanga so I did honestly attempt to try to include it in my teaching and found many resented it.</p> <p data-bbox="396 550 1395 669">Don't get me wrong, I often tried to include a Te Ao Māori perspective and still do to this day. However, as it is mandatory, it only seeks to advantage those very few elite Māori who have cultural connections that align with the Ministry of Education. Everyone else will suffer as a result.</p> <p data-bbox="396 707 1395 827">I believe that it should be optional like many of the other subjects (social sciences, asian languages etc) have interpreted it as. This way those few elite Māori students who have connections will still be able to succeed, whereas others could for example include cultural connections such as japanese etc.</p> <p data-bbox="396 865 1395 953">This would still provide a pathway to success and stops the ministry of education bringing in possibly dangerous and limiting ideology into the classroom, that would alienate the majority of learners.</p> <p data-bbox="396 991 1395 1110">I think that the te ao Maori perspective should be highly encouraged, resourced but not mandatory. This would give the students/teachers freedom to follow their passions around the topic and provide a path way for Maori students. Many other subjects have done that.</p> <p data-bbox="396 1148 1395 1236">The Ministry of Education could end up with a lawsuit on their hands with this assessment. It also may violate the Bill of Rights and the universal declaration of Human Rights.</p> <p data-bbox="396 1295 1395 1346">For 1.3 students are required to talk about the impact of Digital Technology on Users. It then states:</p> <p data-bbox="396 1419 1395 1470">"These perspectives will include a te ao Māori perspective based on values such as manaakitanga, wairuatanga, kotahitanga, whanaungatanga, and tikanga."</p> <p data-bbox="396 1543 1395 1663">Wairuatanga, in my google searches and the glossary refer to Spirituality, and in this context refers to "Māori Spirituality". This in itself is a can of worms as Māori spirituality can range from Catholic/Anglican all the way to Ancient myths/legends of Gods. Either way it still poses a major issue.</p> <p data-bbox="396 1736 1395 1856">Teachers who are strict Christian, Jewish or Islamic have laws they adhere which forbid them from talking about foreign gods (gods that are different from theirs) . Some of them want to adhere to this very strongly and in order to observe their own religious customs they will refuse to talk about this.</p>

Response ID	Answer
	<p>The New Zealand Bill of Rights states:</p> <p>Manifestation of religion and belief</p> <p>Every person has the right to manifest that person's religion or belief in worship, observance, practice, or teaching, either individually or in community with others, and either in public or in private. <a href="https://www.legislation.govt.nz/act/public/1990/0109/latest/DLM225514.html">https://www.legislation.govt.nz/act/public/1990/0109/latest/DLM225514.html</a></p> <p>Any teacher that refuses to teach about Māori Spirituality (Wairuatanga), and any student that refuses to learn it would be protected by the NZ bill of rights.</p> <p>This is where teachers are also stuck between a rock and a hard place. Some religious teachers may talk about Māori Spirituality but with the understanding that they could talk about why they don't believe it etc...</p> <p>But this would go against our code of ethics:</p> <p><a href="https://teachingcouncilnz-uat.cwp.govt.nz/assets/Files/Examples-in-Practice-.pdf">https://teachingcouncilnz-uat.cwp.govt.nz/assets/Files/Examples-in-Practice-.pdf</a></p> <p>They list examples, only talking about one type of religion would naturally be excluding others.</p> <p>I was trying to think about how Wairuatanga would be relevant to talk about with digital impact, and I did come up with a good example:</p> <p>"Compression coding led to video websites being viable, such as youtube, vimeo, daily motion. This created a lot of communities that began to dominate online culture. One of these communities was the "New Atheist" community with many channels/videos being created daily that were attacking religious belief. Now there are an equal amount of pro-religious channels/videos available to counter the atheist movement, however it was initially highly effective. This would have had a negative effect on Wairuatanga, as many young Māori may have been more tempted to abandon their spiritual/cultural beliefs due to the heavily atheist dominated internet culture."</p> <p>This would be something I wouldn't personally mind talking about, but in order to do so I would probably end up preaching Christian Beliefs and undermining Māori spiritual beliefs. We would end up walking on egg shells, ensuring that the bill of rights are being met, along side the new standards. Atheists should also be concerned as it is their right to ridicule religion and not be forced to preach a religion.</p> <p>This angle of Wairuatanga, needs to be strongly reconsidered... I would be</p>

Response ID	Answer
<p><a href="#">ANON-K9GG-18FY-T</a></p>	<p>looking at possible legal action if it was not. If it was optional then I guess it would no longer violate the rules... but there are some other issues:</p> <p>1.) I have read through all the other standards currently available as they are currently worded. We are the only subject that has to talk specifically about Māori Spirituality. Why is Digital Technology, the only subject that has to talk specifically about Māori Spirituality? Even health which talks about spirituality, doesn't force students to understand it from a Māori perspective.</p> <p>2.) There seems to be a clear lack of agreement of what including te ao Māori perspective looks like. Most of the subjects have offered the te ao Māori perspective as optional (Korean, Japanese, Social Sciences, History, Geography,) and other subjects have mandated that every student must discuss the Māori perspective. (science, technology, digital technology). This is insanity, for a start, but I believe the correct interpretation is to provide a pathway, making it optional. This then puts the responsibility on the teacher to do so.</p> <p>3.) A lot of IT teachers are geeks, not social scientists. They get excited by the technology.... do you really think they are the best representatives to talk about Wairuatanga. Do you want IT teachers teaching about Maori Gods? Myths or Legends?</p> <p>4.) Peoples religious/spiritual views are very private and often sensitive. Opening them up is definitely not a smart move.</p> <p>5.) Have you consulted Iwi, and let them know that IT teachers will be teaching Wairuatanga? are they happy with Pakeha teaching it from their perspective? I am pretty sure they would not be happy about it either. Again, this is a serious issue and forcing Wairuatanga on Digital Technology teachers does seriously make me lose faith in the teachers/people involved in the creation of the new standards.</p> <p>The statement that many have repeated about equal status for mātauranga Māori, comes from an Ann Milne/Russell Bishop, and is a current perspective that some in higher education like to push. Please correct me if I am wrong but it tends to divide knowledge into two categories: Māori and Pakeha/Western/Coloniser. From your perspective all the knowledge such as programming, network engineering, electronics, databases are European/Western knowledge. This means you believe it's fair in a Bicultural society that we include a Māori perspective so that we have equality and thus provide a pathway for success for Māori students.</p> <p>However, I have a different perspective, which many others in this community, industry, and the technology education sector share. The idea is that there is cultural knowledge and there is universal knowledge. This means that you have pockets of knowledge and understanding that relate to specific cultures: Māori, English, Scottish, Pasifika etc. This is usually related to cultural practices, languages and perspectives. Then you have universal knowledge which exists regardless of culture. This is like the number 2/rua/dos. Regardless of the language you use to describe this number it exists and we can teach it regardless of cultural context. Think of this from a programming perspective, using if statements or loops is not culture sensitive. There is no Indian perspective on this,</p>

Response ID	Answer
	<p>it is universal. The same could be said about electrical currents, physics etc.</p> <p>Here is the kicker, if you have the first perspective you believe that the Māori perspective must be included otherwise you will have inequality, and possibly racist attitudes. If you subscribe to the second perspective then the mandating of a Māori perspective actually promotes a form of racism in that for some reason the Māori perspective is much more important than Scottish, Japanese, Polynesian. We get to a point where we are actually promoting one perspective as superior to others.</p> <p>The question is, which perspective is right? Which perspective is in line with the Ministry of Education's mandate? And which perspective will help all learners (including Māori) grow and prosper in Digital Technology?</p> <p>I don't give much credence to the first perspective personally, I believe it is fundamentally flawed and only seeks to harm Māori and to stir up division. It classifies certain knowledge as "non-Māori" and this can immediately put a restriction on learning. I have been in classes around the country where Māori have referred to computers as white knowledge. This perspective would reinforce that messaging.</p> <p>Te kotahitanga was built on this perspective and it was closed pretty quickly after it didn't produce results. I believe it builds up resentment as Pasifika students, Asian students and Indian students can complain that their cultural identity is not being recognized as the kiwi's that they are.</p> <p>I also believe that this perspective stifles creativity. Students are no longer free to explore digital outcomes from a different culture's perspective. Say a Māori student is really into Anime and wants to make a short animation using digital media tools. Let's say they are fascinated about Japanese culture and really want to design an end product that suits them. These standards that force a Māori perspective actually prevent this student from following his passion and force him/her to either adhere to that perspective or change their project into one they are not interested in.</p> <p>There seems to be a divide with the teachers designing these new assessments as well. Some subjects see it from the first angle (Science/Technology) and try hard to ram in the Māori perspective. Others (Japanese, Physical Education, Social Sciences) tend to build their assessments to make the Māori pathway optional. This makes the whole area a confused mess. As us nerdy digital technology teachers find we are teaching more about the Māori perspective than</p>

Response ID	Answer
	<p>history or social sciences.</p> <p>I personally believe that the only way we can have equality between cultures is to make the cultural elements optional. I.e. you can answer this question from a Māori perspective or you can answer it from the culture you are targeting's perspective (a sort of cultural implication). This would make the learning much more colourful and teachers would feel they could teach to their passions whilst still providing Māori pathways. We should also encourage teachers to teach the Māori perspective by providing resources that match it.</p>
<a href="#">ANON-K9GG-1838-6</a>	<p>While this is a positive change, teachers will need considerable professional development to implement it in classrooms. Just one or two examples do not support the application at all.</p>
<a href="#">ANON-K9GG-183R-Z</a>	<p>I am very supportive of the inclusive and mandating of Mana Ōrite mō te Mātauranga Māori in the new NCEA structure. I believe that teachers will need a lot of support to make sure that this is appropriately made part of their courses. In Digital Technology, which is a young discipline, I think that teachers will need extra help to see how they can incorporate these concepts in ways that are meaningful and relevant . I don't think that the course outlines currently provide enough detail about how to do this.</p>
<a href="#">ANON-K9GG-1N22-N</a>	<p>Standards have been removed already!</p>
<a href="#">ANON-K9GG-1NGF-X</a>	<p>Content in this area is minimal. TENZ members raised concerns about how to incorporate mātauranga Māori teaching and learning into the broad range of contexts Digital Technologies encompasses. This is not sufficiently clarified by generic statements in Course Outlines simply directing teachers to explore "mātauranga Māori values and principles such as kaitiakitanga, manaakitanga, whanaungatanga, tikanga in digital technologies in order to consider a Māori perspective on the topic". TENZ intends to support members in this area, however other draft subjects are providing much clearer demonstrations of how this could look.</p>