[upbeat music]

[Lia] Hi, I'm Lia and welcome to our final episode of coding@home for primary school students.

Over this series we've been taking you guys through the steps you need to create your

very own coding project - a project to help Queenslanders learn more about cybersecurity.

The issue you may be arriving at now, is how to actually test and evaluate that problem.

Well luckily this industry expert knows the solution.

Dr Cam Brooks is a research fellow at the University of Queensland's School of

Education and he is here to help us understand the importance of self-assessment and self-evaluation.

[Stacey] Dr Cam thanks for joining us. Now what can you tell us about self-assessment

and self-evaluation?

[Dr Cam] Well they're kind of the same, but I guess they're also slightly different.

So self-evaluation - typically that's where learners look back at how they went.

Often it happens at the end of learning - it's about them making some form of judgment.

Self-assessment however, usually happens during learning, like it's an ongoing process

and when we're self-assessing, the learner is constantly looking at,

"Where am I now in relation to where I need to be?"

We call this, 'focusing on the learning gap'.

For learners to be able to self-assess they really need to know three things.

First, they need to know the criteria for how they're being assessed.

Second, they need to know how they're going in relation to that.

And third, they need to be able to know, "What could I do next to improve?"

[Stacey] Why is self-evaluation so important?

[Dr Cam] So whether you're in the classroom or if you're learning from home,

we need to look at other strategies that students can use to find information about

what they could do next to improve, and self-assessment is a great strategy to use.

It's a little bit like if you're in a new city, or you were somewhere in the outback,

and you pulled out a map.

You wouldn't just look at that map once and put it in your pocket,

and put your head down and just keep on walking.

What you would do is you would constantly pull that map out and check to see are you on track.

"Are you headed where you're supposed to be going?"

It's the same when you're doing an assignment at school or from home

we need to be constantly self-assessing or checking in to see, "Are we on track?"

[Stacey] So how exactly do we self-evaluate?

understanding of how you're being assessed.

Those things I was talking about before - the success criteria.

One way that you can do that is to look at a criteria sheet, but perhaps a better way,

is to actually look at models, or examples of, "How did other people do something similar?"

To give you an example, would be to look at perhaps someone like an artist.

As they are developing their skills, they might look at other art, or the work of other artists,

and they would critique that work, and that's what we need to be doing in the classroom.

When we self-assess, students need to do that and then they need to look,

compare that back to their own work.

"How did I go in relation to those successful models?"

A great next step to help keep you on track, is peer feedback.

But you have to remember that peer feedback is a two-way process,

it's also really powerful that you are giving feedback to that other student.

It makes you look at their work through the eyes of a teacher.

You're looking at their work in relation to, "How did they go compared to the success criteria?"

And then it's really important to come back to your own.

Now you've looked at your friend's work, "Do you see your own work differently?"

[Stacey] Let's take a look at some of the criteria for the Premier's Coding Challenge,

and take some time to self-evaluate.

[Dr Cam] Okay, so one of the criteria is User Input.

Instances of user input are used to personalize the user experience

and assist the user to respond to input prompts.

If we get ahead of ourselves too quickly, we might end up with something that looks like this.

We can see the user is being asked a question,

but it doesn't actually tell the user what they're supposed to be pressing as a response.

In this case, it has to be an uppercase letter 'Y' for Yes or an uppercase 'N' for 'No'.

Now some of us just might naturally do this, but really we can't just rely on that.

If we'd taken the time to stop, pause and reflect, or even to get our peers to check our work,

then we might understand that really, the purpose was to 'assist the user'.

So maybe it should have looked more like this.

You can see now it clearly says press 'Y' for Yes or 'N' for No.

[Stacey] That makes the program so much easier to use and it matches the judging criteria.

[Dr Cam] Exactly and that's why it's so important to stop, pause and reflect,

so we have a better chance of success.

[Lia] And with that, the five stages of designing a digital solution to a problem have been covered.

But what does a completed version look like?

We've talked a lot about using coding to create a project

that will make Queenslanders more aware of cybersecurity, and now we're going to play one.

I bring you 'Cyber safety around the world'!

This game has been coded to assist the user -which is me- to become more aware of cybersecurity.

So let's play!

[Lia] If you find a USB drive on the ground with no owner

should you take it to your home and plug it into your computer, 'A', "Yes", or 'B', "No"?

Well I would be really curious to know what would be on the USB, but it could be

something bad so I think... I'm... Yeah I'm gonna say, "No", 'B'.

Correct the answer is, 'B', you should never plug in an unknown or untrusted USB drive.

Question two...

That was awesome and believe it or not

that game was actually designed and coded by two Year 3 students.

Their prototype happened to be the winner of the Years 3-4 Scratch/Tynker Pairs category

of the Premier's Coding Challenge in 2019.

They're in Year 4 now and I'm lucky enough to be actually speaking to

both of them today to find out just how they did it.

So let's say hello to Olivia and Jordan from Walkerston State School.

[Lia] Hey guys how are you feeling?

[Olivia and Jordan] Good.

[Lia] You guys did such an amazing entry last year for the Premier's

Coding Challenge - and I was wondering - How did you prepare to make something that awesome?

[Jordan] Um... so our teacher Miss Scott last year she planted the seed by showing us Scratch.

[Lia] Okay so you learned how to use Scratch and then you got in your teams.

Did you brainstorm ideas?

[Jordan] We had to brainstorm a lot of ideas because...so

we had lots of muck-ups and we had lots of bugs in our in our code.

[Olivia] And we made it basically perfect and we tried and tried and we tried to make it better,

but we said one day, "We're gonna do this and we're gonna finish it." And we did.

[Lia] Okay and since then have you guys made any other coding projects for yourself.

[Jordan] So I've been working on a Pong game that's really taking long.

[Lia] Oh cool! So what's that about?

[Jordan] So it's where you move like a block on the bottom and there's a ball that - ball that

goes around the sides and it bounces off the sides and if it goes - if you miss the ball, you're out.

[Lia] And what about you Olivia - have you been working on some coding projects?

[Olivia] Yes I [have] been because when we went down to Brisbane, we got a little robot

and I... and you get a little controller so then you can play around with it. I've been

doing codes for going right, left, forwards, and backwards.

[Lia] That is pretty cool guys!

And what else have you been doing to keep up your coding skills? Are you trying to

learn more, or are you just staying with the knowledge that you know now?

[Jordan] I've been looking at JavaScript and I’ve got robots to code at home.

[Olivia] I've been coding with my robots for getting up my skills so I can do it this year.

[Lia] What do you think you love the most about coding?

[Jordan] I like moving the box to the spot it needs to go, so the character moves.

[Olivia] I love collaborative learning when you're brainstorming ideas for the,

for the game itself but also just being together and learning together.

[Lia] And you both did such an amazing job with the challenge last year.

What are your plans? What are your thoughts for this year?

[Jordan] An animation that talks,

that is funny, and talks about cyber safety in a way that catches the audience attention.

[Olivia] Mine is making a globe and putting different types of countries on it,

and when you click on it you can see what happens in the cyber safety world of it.

[Lia] Would you want to do a job with coding?

[Jordan] I'd like to make a famous app that can't be hacked and that is cyber safe.

[Olivia] I would like to be a sports champion when I grow up but I might not want to do it,

so I might make a coding app for the person to do it and then the people copy it.

[Lia] Oh so like a sports training app with coding?

That's awesome! That's like combining all of your dream jobs.

Well guys do you have any advice or tips or tricks for people who really

want to do the challenge this year and maybe haven't done it before?

[Jordan] My advice is to never give up and

that coding is all about trial and error, so if you get it wrong you can always retry?

[Lia] What about you Olivia?

[Olivia] Mine's being patient because you might not get it one shot. It took us a long time for

us to do it and a lot of patience for us to do it, but we finally got there and we did it.

[Lia] That is really good to know guys, because your end product -your

entry- was amazing. I can't wait to see what you guys do this year.

[Lia] Bye guys!

[Oliva and Jordan] Bye!

[Lia] After that incredible success story, how could you not be ready to get coding?

Who knows? We could be talking to you about your incredible prototype next year.

If you're interested in submitting an entry to the Premier's Coding Challenge,

you don't want to go anywhere.

[Lia]

Throughout this series I've been lucky enough to share with you heaps of skills

and tips to assist you with your coding projects.

And over five episodes that has been a lot of talking and plenty of script to remember.

It might look easy when you watch it put together - let me let you in on a little secret.

I don't always get it right.

You can cap some...

Which you can use to create... Oh sorry.

Order? How you do these steps?

Sorry.

Sorry.

Sorry.

Ohhhh, sorry.

Change...aww.

If you're gearing up to present your coding project to camera

you might feel this pressure too.

In fact, a lot of people feel quite nervous when they have to present directly to a camera,

but never fear.

Just as I was here to help you with your coding project,

I'm now here to give you some skills and tips to present your coding project.

The big secret when it comes to presenting, is just to relax and to try and remove the pressure.

But that is a lot easier said than done.

[Lia] When we were discussing coding projects, one of the most important stages was the planning stage.

Do you remember when we created an algorithm using a flow diagram?

This was a great way to map out our chat bot before we got started.

We could make any adjustments, and fix any mistakes before we got into the actual coding.

The same concept can be used when you're planning to present your project to camera.

Instead of writing an algorithm, this time you're writing a script.

It's still the same process though - it's still a series of steps.

You are giving your audience a series of steps for how your project works,

and you're also giving yourself a series of steps for what to say next.

When you start out you can think of it as a bit of an algorithm.

Write a list of all of the things you want to cover.

It might look a little something like this:

Introduce yourself.

Introduce your idea.

Talk about who your audience is.

Talk about how your project targets this audience.

Talk about how your project informs your audience about cybersecurity.

Once you have your steps you can start writing your script.

This can either be in great detail writing out every single word you want to say,

or it could be in dot points to remind you of what you kind of want to say and in what order.

Just as you get feedback on your algorithm, you should try and get feedback on your script.

Try saying it to a family member or friends.

Do they understand how your idea is going to work?

Or do they have some questions?

Now if they do have questions, then this means

you should probably integrate that information back into your script to make things more clear.

Once you have a full script or dot points you're happy with,

it's all about practice, practice, practice, before you film your presentation.

Think about it like trying to beat a boss, or a level in a video game.

The more you do it, the better you become.

Once you've got your script and you've practiced it as many times as you can,

it's finally time to film your presentation.

We need to try and make it the best it can possibly be,

and to do this I want you to think about two things:

The video and the audio.

I actually am lucky enough to have a whole crew to help me out with this.

Say "Hi" guys!

But you don't actually need a whole crew.  You just need to be able to think like one.

So let's start off with filming.

You can film on absolutely anything that has video capabilities.

So you could film on an actual camera,

or you could film on a computer, with its camera or you could even film on a phone with its camera.

If you're filming your entry on a phone,

you still need to remember that it will be viewed on a TV screen or on a computer screen.

This means that we always need to hold our phone horizontally, so that our shot is in landscape.

To check if you're doing this right, see if your image is a rectangle that is laying down.

If you're presenting to camera and the shot is all wobbly and going everywhere, this can be

really distracting to audience members, and it can take away from what you're saying.

If you've got someone who's holding the camera, get them to stand very, very still.

Here a tripod can help,

or you could even prop your camera up on a bookshelf and secure it with some books.

Something that we often forget about when we're recording ourselves

is the audio or the sound of the recording.

It's really important to record somewhere quiet as any background noise could really take away

from what you're saying [Loud blender noise]

[Lia talking over blender] I...okay...  yeah... this is not going to work!

All right if there is a lot of background noise, we can either wait for it to die down, or we can

just find a different spot away from all of this. [Loud blender noise continues]

[Lia]

Indoors is probably best but if you do have to shoot outside,

try and find a spot that's out of the wind, so it doesn't distort your voice.

Also you want to stay really close to the microphone because if you don't...

[Lia faintly] ...it might have trouble picking you up.

[Lia] Once you've got your video and your audio to the best that you can, you are ready to present.

Now at this stage it's okay if you're feeling a little bit nervous,

but again try and remove as much pressure as possible.

You don't have to get it the first time.

I mean you saw my mess-ups at the start of the lesson.

You don't even have to get it the 25th time.

Leave as much time before the due date as possible,

so you can have as many goes as you like.

P.S. This even took me four takes!

Once you've got your video and your audio to the best...

possible...

as possible...

It's okay if you feel nervous...

What is the start? Oh my goodness!

When presenting to camera you should talk to it as if you're talking to your best friend.

Remember to keep it conversational and to be enthusiastic and excited.

I mean you're talking about your amazing, incredible, stunning idea.

You've created something great and you should not be afraid to show that.

[Lia] Don't be afraid to gesture as you normally do in any normal conversation, or if you don't

usually do this and you're not sure what to do with your hands just do what's natural to you.

So you might put your hands by your side, or you might rest them on a desk in front of you.

Like any normal conversation, you want to keep eye contact with the camera.

Speaking of which, it never really works to read your script off the side of the camera.

The audience can always tell, and it looks really unnatural and distracting.

Here are some tips we like to use when I have a big chunk

of text that I am struggling to memorise - change camera angle.

It may not have looked like it, but we actually just took a break so I could memorise this line,

and then the same thing again to learn this line,

because I couldn't remember all of the words at once.

Here's what really happened.

I only need to remember a couple of lines up until I turn to look to another camera.

Except there isn't another camera.

I do the turn, learn the lines,

and then we move the camera to film the next lines so it looks like a new camera and a new angle.

It's really important that your new camera angle is extremely different to your original one.

You can use this trick to break up your script into smaller pieces that you can remember.

Here it's really important to turn away from your original camera angle,

and towards your new one, every time you record,

Your footage can be cut together using a simple free edit program

like iMovie, Movie Maker or any edit app on your phone.

If you are downloading new software,

then make sure you ask a parent or guardian for permission first.

If you do have access to editing then you might want to include some vision or a screen capture

of your project while you're talking about it.

Not only will this keep your audience interested, but it will allow you to

record some of your explanation as voice-over like I'm doing right now.

Because the audience can't see me, I'm actually reading this

off the script, and I don't have to remember it.

When recording voice-over, you need to add a little bit of extra energy to your reading,

because well, the audience can't see your expressions in your face.

If you don't have access to a camera, then you can actually do your whole entire presentation

by simply recording your voice, and using screen capture and other

visual elements of your project like pictures and also diagrams.

Make sure you give yourself enough time to keep recording, and redoing your work until you're 100%

happy with it, and try and have a good time while you're at it.

If you're enjoying yourself, then the chances are your audience are

too, and that's what good presenting is all about.

Feeling excited and passionate about whatever you are talking about,

and I am excited to see all of your amazing coding creations come to life on screen!

[Lia]

We know Queenslanders need to become more safe and secure online by improving their cybersecurity,

and the Premier's Coding Challenge is a great way for you to develop

all of those skills, as well as helping out the community.

Now that you know how to make an entry, here are my top six tips on how to make an awesome one.

Firstly, follow the advice you've seen on coding@home.

You can re-watch all of the episodes online.

2. Go to the challenge website and read the relevant criteria for your band level.

Either Years 3-4 or Years 5-6 and highlight all the coding elements that you need to include,

and check you have them in your entry.

3. Make sure you have considered interactivity and making your code hard to break.

Think about making it fun and easy to use.

4. Being concise is a skill. Make sure your video explains your entry

and stays within the time limit of 90 seconds. Videos that go over time are not accepted.

5. Your entry must be about cybersecurity.

It should educate the user and provide tips with links for more information.

6. If you aren't sure about what any of the criteria mean, then ask your teacher or a

parent or a guardian to help you, or even email coding.competition@qed.qld.gov.au.

The STEM team will be happy to point you in the right direction,

and you can always look at the winning entries from previous years online.

Well that's it from us for now, but it has been awesome sharing coding with you guys.

Where to next? Well that one is up to you.

Get coding and show the world what you can do.

Your ideas might even change it!

I'm Lia and we've been coding@home.

Authorised by the Queensland Government, Brisbane.