**Leanne Compton** - Hello. My name is Leanne Compton and I'm the Curriculum Manager of Design and Technologies at the Victorian Curriculum and Assessment Authority. With me is the state reviewer for Product Design and Technology, Simon Van Dillen. This video is one in a series of videos, that the VCAA has developed to support teachers, in the delivery of VCE Product Design and Technology. This particular video will explore the School-assessed Task and will focus on unpacking criteria one to four. Simon is going to present this session. So over to you Simon.

**Simon Van Dillen** - Thank you Leanne. And thank you educators for taking the time to to watch these videos, I hope that are helpful. And I know your students, will pretty much appreciate the time that you take to do this. As Leanne said we're getting unpack the SAT and looking at criteria one to four to begin with. To begin with let's look at the current study design. The accreditation period for the current study design is from 2018 to 2023.

So, please make sure that this is the study design that you are working out of, when you're delivering the content to students and looking at the assessment tasks. There's also Administrative information for school based assessment, this is updated annually, and it's published on the Product Design and Technology study page on the VCAA webpage. It contains mandated assessment criteria.

So as we go through today you will see the particular criteria, that you must use when ranking your students, and notification of this publication is published in February, in the VCAA Bulletin. The February Bulletin. The School-assessed Task. What is it? It goes across units 3 and 4. It contributes to 50% to the study score for the student. It commences in unit three, and is completed in unit four. With the School-assessed Task as well because it is a long assessment task, the school needs to provide authentication records, of the information by each student, and this must be available request for the VCAA at anytime.

Further information about the authentication can be found on, in the Authentication videos, as part of these suite of videos that we put together. Also to, teachers should be aware that the dates of submission of scores to VASS occur in July and November. So please work with your VASS Coordinator around providing that information.

Applying on to unit 3, outcome three, is our first outcome that follows the SAT as part of the assessment, and is asking for folio. And the folio must comprise of, if you read the study design, an end-user profile, design brief, evaluation criteria, research, visualisations, design options, and justification of selected option, working drawings of the final design, selective production plan, a list of relevant processes used for large scale production, record of the progress and modifications.

And the design folio must document any decisions, and acknowledge any sources of information as we going through. The design folio, there's a range of formats such as hard copy, electronic, or a combination of both. So students don't necessarily need to create an A3 hard copy folio. They can do this electronically, or they can do it as a combination of both. It can be written, it can be video, it can be audio files, just to demonstrate and the response to the criteria.

So SAT information for criteria one. We're going to break it down a little bit more. So criteria one, is the skills in developing an end-user profile research design brief and evaluation criteria with reference to the product design factors. Now indicators for this criteria are: identifying the design problem, conducts primary research, develops an end-user profile, develops design brief, identifies evaluation criteria with reference to the product design factors and writes evaluation criteria that reflect the design brief; the evaluation criteria for the final product is written in four-parts.

Let's break this down a little bit further Identifies the design problem. Students need to look at the design problem or issue or need, which is either local, national, or global. There is a clear difference there in what their design problem is They conduct primary research. So with real people, they're using such as surveys, questionnaires, interviews, focus groups, however they would like to go around doing that to be able to conduct that primary research from those, potential end-users.

They develop an end user profile, or an end user group, but this is not to be specific to one individual person. It needs to be all possible end-users. Not a singular person, it is end-users. So it might be an individual end-user, but that's different type, different group. So the fall within a particular cohort, so to speak. Designs, or develops a design brief. So you’ve got to explain the content. Sets out the constraints and considerations, explains expected quality, and that needs to be realistic too. We are talking year 12 and year 11 students.

So, 17, 18 16, 17, 18. What would we, what's the level of quality expected for, for that particular age and that particular skillset? And addresses the product design factors too the design brief needs to address those product design factors, and that may not include every single product design factor. It's just what would be appropriate to that particular design problem that the student is putting forward, or trying to solve. We identify evaluation criteria with reference to the product design factors, as well. And then writes evaluation criteria that reflects the design brief. This is written in four parts.

So, evaluation criteria would be used to select one, sorry, evaluation criteria used to select one preferred option would not have the four elements. If it is about the final product and evaluating the final product, and how that has met the need or problem, then it does need to written out as the four parts.

SAT assessment criterion two. Skills in conducting research, communicating developmental work. So indicators here are: identifies relevant research areas, conducts primary and secondary research, gathers feedback from end-users, demonstrates the relationship between research and a range of developmental work, generates visualisations using appropriate annotations and identifies and acknowledges appropriate intellectual property. Break that down even further, identifying relevant research areas.

So looking at those product design factors and then working out, what are the areas that they need to research. So they might use things such as mind maps, mood-boards, research plans, et cetera, to help map out or plan what they need to research and making sure it's relevant. That's the really big thing. Sometimes students will put a lot of research in and it'll look fantastic, but it's not actually relevant to the need or the problem that they're trying to solve, or the design brief that they've written. Conducts both primary and secondary research. It's the students needs. We need to make sure we teach the students this as well. And don't just expect them to know, what is primary research and what is secondary research? And making sure that they undertake both types. And we see them in there. And the gathering of feedback from their end user.

So this will help guide that design and developmental stage, and making sure that the end users have an input and helping the design of the student-focus on the solution. Demonstrates relationship between research and a range of developmental work. So explains why the research is relevant or why it is being used. Why is it even in there? How it's going to be used? And how it's going to be guided How is the student going to use this information that they've gathered and what is it doing? Is it ruling it in or ruling it out?

So there's some research the students will do to rule out a particular line or particular direction of their developmental work. They will realise through end user feedback, and, through that research, that that won't be an appropriate way to go. And then they'll start moving back into another direction. And that's important that the students demonstrate that and show that they have thought of something and have considered it and then realised that, that's not the path to go down and then change to the course. And make sure that they document that. Generates visualisations, using appropriate annotations.

So throughout the research, we want to see the students throwing out permanent explosions of great creativity and demonstrating those innovations. So when they're researching something and they have that idea pop into their head, that they they're sketching that, they're using annotations and talking about it. And these are those really quick, fast, drawn out sketches, visualisations, that students are doing to help guide their, their development work moving forward, and also allows them at the time to brainstorm all the ideas that they're having. And not later on trying to think about what was I going to do here? So as the research is happening, they're also doing this, those sketches being innovative and creative at that time. Identifies and acknowledges, appropriate intellectual property.

So using accepted conventions, students should follow, the school's preferred referencing system. So each school has their own referencing system and making sure that the students are following that and following that correctly and record, like just, if the student is putting URL on a page, it's not an appropriate form of IP. And then when you're assessing the student, you shouldn't be assessing them by, you should assess them very low if they're just putting URLs on pages or page URLs at the end.

Alright, SAT assessment criteria three. Skills in developing, for developing creative and innovative design options, and the ability to gain end-user feedback and justify the preferred option. So, indicators here. Use developmental work including: visualisations to generate innovative and creative design options with annotations, identify as possible functions, features, materials, or production processes evident to the design option, gathers end user feedback on the design option and selects and justifies the preferred option in relation to the evaluation criteria and end user feedback.

Let's dig a little bit deeper here. So, we've already, in criteria two, we've had students already doing a set of visualisations. Now with, these visualisations become more refined. So they've looked at those different pathways they're going, and they're starting to refine these visualisations. You can see that development work happening from, if you look at it, think of it, take a look at it as a big um... funnel, they started off large and they're slowly coming down. This is where those visualisations start to really hone-in on what, the best solution to the design problem. There is a clear link between the visualisations and the future design options. So you've got the visualisations here that do not look anything ..., their design options that just appear that, you can't think of as visualisations, we will be saying that something has been missed here Where the gap there? So making sure that there's exactly a link between the two and that design thinking has continued to play. Identifies possible functions, pages, materials, and production processes evident in the design option.

So the design options need to reflect the design brief and connect to the visualisations and the research. So there's a clear link between them. So, as an example, a student has designed a particular piece of furniture and throughout their design and development, it's all being in a rectangular shape. And yet, one of their design options is circular or cylinder shape. We would ... the question there would be where has that come from? There has not been that clear link between, the research and visualisations, and user feedback to that particular design option. And that doesn't fit, so to speak.

Criteria three, continuing, so gathers end-user feedback on the design options and selects and justifies the preferred option in relation to the evaluation criteria and end user feedback. So the feedback from real end users. So they're actually gathering that and then taking their design options and they're getting the end-users to give ..., give them that feedback. Clear use of the evaluation criteria that they've written previously and justifies that design option. And why is it the preferred solution to the design problem or need?

SAT assessment criterion four. Skills in preparing working drawings and a scheduled production/work plan, including quality measures. So indicators here are: prepares working drawings, demonstrate scheduled production plan, and also demonstrates risk assessment and risk management. If prepares working drawings, these need to be technical, the use of technical language and conventions. Use of symbols and measurements, explains the product functions and requirements, and explains the materials and construction methods. Now this may not all be on the particular drawing that the student might provide a set of information that gives that explanation on the materials and construction methods, the technical, appropriate technical drawings for wood, metal, plastics will be different for textiles.

So it needs to be appropriate to the type of material that the student is using as well. And making sure that if they gave that particular working drawing to someone, that someone else could produce that product, based on those set of working drawings. Develops a schedule production plan, and you can see the parts of this, the scheduled production plan on page 24 of the study design.

So the scheduled production plan, with timeline, steps, materials, tools, equipment, quality measures, and estimated time to complete the processes. And it needs to be realistic as well, and as accurate as possible for that particular time. Students conduct a risk assessment and then materials costing list. And demonstrates risk assessment or risk management. So accesses risk of materials including... sorry assesses the risk of tools, materials, equipment, and machinery, explicit management of each of these risks, how are they going to make sure that they are operating safely?

So using the hierarchy of controls. Students undertake a risk assessment and risk management before any practical work is undertaken. So students may have, if they have in their research stage, have done some, something, there that's around materials, tools, equipment, machinery, they might have to undertake this risk assessment earlier on in the place. So do not just waiting till they get the criterion four, now we do a risk assessment. Whenever they are using any tools, equipment, or anything that might place them at that risk or harm, they need to undertake a risk assessment there. It is still assessed in this criteria. And then, yes, I'll put that there.

That was the end of the first four criteria. I know I've gone through them reasonably quickly, but hope that's enough information for you. There will be a SAT webinar, the Q and A held early in term one. So please refer to the February bulletin for the details of those dates and how to register for that, for those, that webinar. Thank you for your time.

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