**Erin Wilson** - Hello, welcome to the last of a series of webinars to support the implementation of the re-accredited VCAA Psychology Study Design for 2023 to 2027. Today we are focusing on an introduction and overview of Unit two. You'll be familiar hopefully with myself, I'm Erin Wilson and today I'm joined by Carmen Love and Thea Carbines who are going to help me present an overview and snapshot of Unit two. it is a follow on from the Unit one webinar. If you haven't attended that webinar or watched the recording that's available on the Psychology study page, I'd really encourage you to do so because it provides some important background information as well as some relevant advice, particularly in relation to the Cross-study specifications, Key Science Skills and other things that you'll need to consider when planning for both Unit 1 and Unit 2.

When I originally planned to deliver the webinar, I thought that I was going to be on Dja Dja Wurrung Country where I was born but also live and present from home, but today I'm actually in the office and so I'm presenting from the lands of the Wurunjeri peoples who are also part of the Kulin Nations. I pay my respects to the elders past, present, and emerging of the lands in which I'm presenting from, but also the lands that you are all attending from, and I know for some people that is interstate. And really, I want to recognise the ongoing contribution and resilience that they have made in terms of caring for Country and then also the contribution towards our understanding of the discipline of Psychology, which is being enhanced and strengthened within this revised Study Design.

As I said, we've in where it is an extension and follow on from Unit one and I think one of the things that we focused on, particularly in Unit one is recognising that there is inherent flexibility within the structure of Unit two for schools to develop a curriculum and assessment programme that is tailored for your specific needs and cohorts. It really is important that you design a programme that does best meet the needs of your cohort and students, and we are presenting lots of information today to take the best or adapt and use it to design the best programme for your school and then obviously review it yearly and also think about it for your next cohort of students as well. So, the key considerations that we want you to think about when you are thinking about Unit two for the new Study Design is to integrate the Cross-study specifications including the Key Science Skills in all Areas of study, that there is a minimum of 10 hours of practical activities that need to be integrated across Area of study one and two, to think about how you're going to use the log book for both assessment recording and authentication purposes. And again, just that reminder to contextualise to fit the needs to your cohort.

Like for Unit one there is the planning template that's available that's focusing specifically on a bigger picture curriculum assessment programme. So, focusing on key knowledge, the Unit one to four Key Science Skills and you'll see in the example that I'm going to present now that we want you to focus specifically on which of those Key Science Skills are included. So, not just the broad Key Science Skills that apply across all of the VCAA sciences, but to really select and think about the Key Science Skills specific for Psychology that you will map against particular key knowledge.

This template can be a really useful way of mapping out the practical component and thinking about which methodologies you're going to include. And you can see that here for Unit two outcome one, we've included some learning activities that focus on each of the methodologies. You obviously don't need to cover all of the methodologies in each Unit or each area of study, but you may select the ones that best fit the key knowledge and your school cohort. And then you can also see that there's planned S/N tasks being used to monitor satisfactory completion of the outcome. And it really is important and useful to think about what ongoing tasks you'll use as part of that formative assessment judgement. And then also making sure that it's really clear to students at the start of the Unit what work they need to complete for satisfactory completion.

So, we have a summary of the Unit two structure, like all Units we've, it's written and is same as in the previous Study Design, written as a series of questions to reflect the inquiry nature. Unit two, these questions have only slightly altered, however, what's happened in the most significant changes that the previous Area of study two is now Area of study one. And the question for Area of study two is similar to the previous Area of study one. Really, the rationale to swap the order around was to provide or the Area of study has been swapped around. And the rationale was to provide students with a more broader perspective of social influences on cognition and behaviour before then applying the biopsychosocial framework to perception in particular. Doing perception as the second Area of study also provides more time to develop and scaffold the Key Science Skills, which then acts as a nice lead into Area of study three. You can of course do Area of study three at any point during Unit two, so as part of Area of study one, it's part of Area of study two, after Area of study one or after Area of study two. And really, it's probably a good, nice flow to develop students' Key Science Skills to think about where you are going to best support your students to do that.

**Thea Carbines** - Hello, you should be able to hear me now. I'm Thea and I thank you for joining us today. I'm going to be taking you through Unit two Area of study one with some key information, ideas for activities, particularly around the updated content and assessment information for this Area of study. On this slide is the outcome statement with the command terms underlined and the two key areas are colour coded. So, we've got social cognition and then factors that influence individual and group behaviour. And as Erin's already noted to achieve this outcome, students will also be drawing on the key knowledge of the Key Science Skills. So, that page is 12 and 13 of the Study Design. As I just said, there's two key areas covered in this topic.

Firstly, social cognition, which has some updated content, including explicitly including cognitive dissonance, heuristics, and the impact of prejudice, discrimination and stigma on mental wellbeing and ways to reduce it. Secondly, factors that influence individual and group behaviour with some tightened content on the positive and negative influences of different media sources and the development of independence and anti-conformity. Given that this Area of study covers stereotypes, prejudice, and discrimination, it is likely to be sensitive in nature for some students. I did a quick search the other day and found a report called "Growing Up in Australia, the Longitudinal Study of Australian Children," which found that one in three Australian teens reported experiencing discrimination. This was most commonly due to appearance, race and sex. And in addition to that we have to remember that some students will have intergenerational trauma linked to discriminatory policies and practises.

Therefore, there is a need to be mindful of how to create a culturally safe and inclusive classroom. We want to use a strength-based approach to explore the key knowledge in a manner that doesn't entrench stereotypes, but instead broadens perspectives and really highlights the harm that can be caused by prejudice and discrimination. This may include setting guidelines for discussions so that those negative stereotypes and stigma flowing on from that is not reinforced. It may also include not singling out any students or asking any student to speak as a representative of a particular group. Letting students know how they can communicate and check in with you if they are finding any of parts of the topic or a session sensitive is good practise as is reminding them of available school supports. When talking about stereotypes, being mindful of the examples and scenarios that you use.

So, for example, sometimes if I'm trying to think of something quickly on the spot, I'll focus on older people and the stereotypes made about them because this is not likely to be a group that they identify with so much. You can also focus on the stereotypes made within a TV series such as "The Simpsons" or a more contemporary show, ensuring that you analyse that media source well and perhaps discuss how social norms change over time. As Erin mentioned, there's nine methodologies in the updated Key Science Skills. This slide is highlighting how each scientific methodology could be covered with a particular example and activity. And I really want to highlight here that I'm going to be providing lots of examples of different activities as Carmen and then Erin will be, and these are possibilities that you could use in the classroom and the purpose of this is really to generate ideas. We are trying to cater for a broad range of school context and student cohorts, please don't think that you have to do it all or spend every class doing practical activities. Instead think about what range of activities are best to enhance your student's understanding and bring the content to life to make it fun and engaging.

Keep in mind that many of these activities are short, some might only take five to 20 minutes and remember that it's often through doing that information is made more concrete, meaningful and memorable. I'm just going to point out a couple of these methodologies and ideas here. The top one, we've got a case study so students could analyse some real-life scams. There's some case studies on "Scam Watch," and they could look at them in terms of cognitive biases, what sort of cognitive biases may have someone fallen into when they got caught up in the scam and perhaps then they could make recommendations for other people on how to not get caught up in similar kind of scams or things to be looking out for. A correlational study.

I think this topic lends itself really well to correlational studies. Students could design a correlational study to consider things like the relationship between time spent on social media and perceptions of social connectedness. There's a lot of value in designing the study. They may or may not actually carry it out, but you know, if they don't carry it out then one of the Key Science Skills is to predict possible outcomes and they could certainly do that based on the psychological theory that you've looked at. Second from the bottom is Product, process or system development. You could look at that in terms of person perception and stereotyping greatly influencing recruitment for employment. You know, there's some pretty horrific statistics out there on, you know, some resumes with particular names, you know, far less likely to make it to the the next stage.

So, what kind of processes could be put in place to reduce that kind of bias and reduce unfair recruitment or hiring practises. So real life kind of relevance in this area. You may or may not have taught cognitive dissonance previously depending on how you previously taught the attitudes topic. Sorry, I'm just having to play around with something here. Okay, I'm really glad to see it now explicitly included in the Study Design as I think it's such a useful real-life concept to know about and it's always interesting to hear students consciously exploring how they justify their unhealthy choices or maybe not so wise decisions. If you want an absolute ear worm on this topic, search for the "Dissonant and Justified" song by Brad Ray on YouTube. It's incredibly memorable as it's so bad and so annoying, but it does have some excellent resources and some excellent scenarios that are very memorable. A fun idea here could be to play a game in which students try to make a partner smile or laugh by coming up with ridiculous examples of cognitive dissonance. For example, "I love making social media posts against large tech companies on my popular brand phone".

So that real disconnect there between the belief and the behaviour. Another quick activity is the Wason Rule Discovery Test to explain confirmation bias. This is when you present a series of numbers such as 2, 4, 6 and participants have to guess the rule that you are using. Typically, it's found that people do not test their hypotheses critically but rather just seek to confirm them. This is also a great link to the Key Science Skills and the idea of testing scientific ideas rigorously. There are some good videos out there on YouTube if you just Google Wason Rule Discovery Test as well of other people doing it, which it might be useful to see it in practise before you perhaps run it in your classroom.

To explore the just world belief, I've used the story of the highway man for many years and if you web search the article, "Just the instance of the wrong place at the wrong time," you can find this resource quite easily. It involves reading a story scenario followed by students determining who is most responsible for a crime, essentially is it the victim or the perpetrator? And in line with past research on this topic, I've typically found that students are fairly evenly divided at the beginning with who they think is most responsible, and this generates excellent discussion and reflection around the just world beliefs. Of course, read the story and think about your cohort to determine its suitability for your students. You may very likely have come across this riddle before, I found it's a great way to explore unconscious biases because it often challenges students even when they're really certain that they don't have any biases, because it has been around for a while, they always preface the activity by telling students to zip if they've already heard it and know the answer and there are also different versions that can be used.

For example, the mother is the one that dies and the nurse at the hospital is the father rather than the mother who's the surgeon. You could leave it at that, otherwise you could go on and compare the class findings to research by Bell and others in 2020 and discuss the concept of reproducibility. Were there similar findings in a different population or context? It's also a great opportunity to discuss the real-life implications of our cognitive biases and in green you can see how this activity, even though it's potentially quite short, covers a range of the Cross-study specifications including the Key Science Skills, Critical and creative thinking and Ethical understanding. Heuristics, I hope I'm saying this word correctly, are mental shortcuts that allow people to solve problems and make judgements quickly and efficiently. So, I can think of kind of fast and frugal mental shortcuts that we make. While this can reduce cognitive load and be effective for making immediate judgements, they do often result in irrational or inaccurate conclusions and in this way the use of heuristics can lead to cognitive biases, stereotyping and prejudice and discrimination.

So, the first activity here is to help students recognise, no have I changed that around? That's okay. The first activity here is some real-life kind of scenarios and applying heuristics to those real-life scenarios. The second one here is looking at consumer behaviour, where there is a lot of heuristics that are used to try and manipulate people's buying behaviour, and I think this is a really relevant one for young people. For example, humans value items more highly once they own them, which can help explain try before you buy programmes or free trials, or the availability heuristic is another one which involves making decisions based upon how easy it is to bring something to mind, which is why brand familiarity can be so powerful. The representativeness heuristic is a mental shortcut that we use when trying to access how likely a certain event is and it's the tendency to make decisions by assessing how similar something is to an existing mental prototype or category.

And the debate here, the last stop point on whether a hotdog is a type of sandwich or not, I think it'd be a really fun and engaging way to explore this representativeness heuristic and hopefully will generate lots of memorable debate and discussion in your classroom. While certainly this is a very light example, more serious examples could also be explored such as research findings that women typically wait longer in hospital emergency to be seen compared to men. I highly recommend bookmarking the Decision Lab website for excellent resources on heuristics and cognitive biases. To explore the availability heuristic making decisions on how easily things come to mind, there is a detailed example on the VCAA Psychology teacher Support materials webpage. It involves asking students three short questions about whether they believe alcohol and drug use in secondary students has been increasing 1996. In my experience, typically students believe that it has based on their own experiences or hearing stories of other peers behaviour.

So, you can collate a little bit of the data on students' answers to those three questions and then you compare those with available data through the ASSAD survey. And that survey very clearly shows that drinking and cannabis use in secondary students has decreased since that time. You could also then follow this up if you wanted to with an exploration of the ASSAD survey and its sampling methods as a link to the Key Science Skills. For example, that study uses both stratified and random sampling so students could identify why and how both methods were used. The sample size for that survey is typically around 20,000 Australian high school students, so they could also consider how this, you know, large sample influences external validity. Another question I like to constantly pose to my students is, is this an experiment? And of course, this would not be considered an experiment, there's no IV that's being manipulated, it's a survey so it would be considered fieldwork. However, I don't think students can ever have enough practise in identifying the differences and explaining themselves the differences between the methodologies and their key features.

So just really encouraging you to go and check out those teacher Support materials on the VCAA website. There has been a shift in focus with prejudice and discrimination to consider its influence, alongside stigma, on a person and/or group's mental wellbeing and ways to reduce it. There is some knowledge in this stop point that builds on topics covered in Unit one. So, if you have students identify students coming into Unit two without having completed Unit one, there is some content regarding defining and supporting psychological development that you may need to cover and bring them up to speed with. Once you've considered the key terminology, students could create a flow chart or poster focusing on a specific type of prejudice and how this links to discrimination, stigma and mental wellbeing.

So, very much using visuals to try and map it out. Or they could also do that activity flow chart or poster with reference to a particular movie or another media stimulus. Students could design a controlled experiment here to test the effectiveness of three possible different anti-stigma campaigns. They could design an experiment perhaps comparing a brochure, an online education video, or a face-to-face education programme. Once again, they may not actually carry out this controlled experiment, but they can be predicting possible outcomes based on their understanding of the theory. If you had students do this in a group, they could then perhaps share their different designs with a class with an emphasis on convincing others that their design is the best to reduce extraneous variables and increase validity.

So once again, just trying to get them to think about these concepts, talk, share, and discuss these concepts. This is a new dot point covering the influence of social groups and culture on individual behaviour. This point is broad and different teachers and schools should interpret and cover it in a way that best fits their cohort. I might focus on the differences between individualist and collectivist cultures as I like those links to conformity. Also, within this topic, there is also an opportunity for some fun teamwork activities here, such as the Lost at Sea, where groups of students rank the importance of different items in a survival scenario and egg, drop where students are given simple supplies such as cardboard, duct tape and straws and they have to design a method to stop an egg from cracking when dropped at a height. These provide a great starting point to discuss concepts such as groupthink, group shift and social loafing and would also be a great basis for activity write up in the logbooks.

All right, I'm going to shift to the next one now. So positive and negative influence of media sources. There was something on media influences in the last Study Design, but this one has certainly been tightened up to specifically look at the changing nature of social connections, social comparison, addictive behaviours and information access. I think this is a really relevant area for young people and one where they can tease out the difference between opinion, anecdote, evidence and scientific and non-scientific ideas. I love the simple power of a Venn diagram and here it could be used to compare the qualities of social connections comparing social media versus face-to-face. Another idea I love doing in the classroom is a movable human Likert scale.

This involves giving students a statement with one corner of the room being highly agree, the other corner highly disagree, and students have to get out of their chairs, I can almost hear my students doing their collective groan at this and place themselves along the wall where they would position themselves on this Likert scale. Then I invite discussion whereby students explain or justify their position on the scale, and as the discussion goes on students can shift themselves up and down the scale as they reconsider their position.

This could be done at the start of the topic as a stimulus for students to then seek out scientific information to support their views and then you could rerun it to see if their positions have changed based on new scientific information. Or perhaps they'll just use confirmation bias, and everyone will stick to their original points because they've just sought out information that confirmed their existing views, which would be, you know, a really interesting and valid discussion point in itself. Gambling can definitely be seen as a negative influence of media sources. There's a secondary research activity for students to gather information to understand the link between smartphones and gambling and when I get to the assessment there's also some suggestions for assessment there related to gambling as well. And look at that, segueing right into Unit two assessment now.

Some reminders here that at Units one and two procedures for assessing levels of achievement are a matter for school decision, and of course you'll need to follow your own school's guidelines. You must determine whether a student had a satisfactory understanding of an outcome, and in doing this you should consider a range of work samples, and this may include classwork, logbook activities, S/N tasks and assessment tasks. Schools will report to the VCAA whether a student does or does not have a satisfactory understanding, but no levels of achievement such as grades are reported. However, within a school levels of achievement can be made for students and that could be grades, descriptive statements or other indicators.

And a reminder to always refer to the VCAA Assessment principles. For example, assessment tasks should be efficient, and this includes not being onerous in time or over assessing students. So, as a guide for the timing of assessment tasks refer to the Unit three and four guidelines. So that would indicate around 60 minutes for assessment tasks for each Area of study. At Unit two there are a broad range of assessment options that can be used for outcomes one and two and this is so that students can develop a range of skills and you can design tasks to meet different interests and needs.

Please note that the same tasks cannot be selected more than once and that if you are using multiple tasks to assess an outcome, then different tasks must be chosen. For example, if you decided to carry out two smaller assessment tasks, one would perhaps be a media analysis and the other could be a response to a psychological issue. However, if you are going to do this you need to keep in mind that principle of efficiency noted on the previous slide, and you know that timing not being onerous or over assessing students. This slide it's got a lot of information on, and I understand that they will be made available on the VCAA website so you can go back and have a look at it in a bit more detail, but it's outlining how each of those task types could be applied for Unit two Area of study one.

And you'll see that there is a really broad range of options and a reminder here that an assessment task does not have to cover every piece of key knowledge from the area of study, it just has to be a representative sample. So, satisfactory understanding of other key knowledge points can be assessed through other means such as classwork, logbook write-ups or S/N tasks. So, I'll just point out a couple of the possibilities here and then I'm going to run into two in more detail. For example, the top one here, students could analyse and evaluate a classic study, the Festinger and Carlsmith cognitive dissonance research. They could also, the last one here, is a report of a scientific investigation including the generation, analysis and evaluation of primary data. Students could do a class experiment testing the impact of social loafing and, of course like a lot of experiments or activities we do in class, you're likely to have extraneous variables and issues with validity, but that's okay, it can act as a valuable and tangible source of learning.

One assessment option is reflective annotations of a logbook of practical activities. I'm really just highlighting on this slide that for this task type and all the others, you'll find detailed information on the VCAA Psychology assessment page as part of the Support materials. So, please visit and bookmark this site and keep returning to it regularly to check that the task that you are doing are meeting the requirements. As part of this reflective annotations task, you could use a range of the classroom activities that I've just run through such as the highway man story, the implicit bias riddle, Wason's Rule, and a social loafing experiment. And then the task itself, you know, you could do in different ways, if you've already sufficiently covered the related theory, students could have a designated time period to respond to questions in their logbook directly after each task. So, 15 minutes or so after each of those four tasks.

Alternatively, after each of those activities, they could use their logbook to jot down results and then the assessment is completed in a separate designated session. Whatever the case and how you design and set it up, ensure that clear instructions are provided and that there is equity with all students being provided with the same conditions. And as with all the assessment options, making sure that the task allows for students performance at a range of levels and that the Key Science Skills are being assessed alongside the key knowledge. Another assessment option is a media analysis of one or more contemporary media texts. And once again critical information is on the VCAA assessment page. I will point out that contemporary means published in the last calendar year, and this is, so students are getting current understanding and research and it also greatly assists with authentication.

You can choose to present students with stimulus material prior to the assessment task or with, on the date, with reading time. Media texts are, you know, quite varied in what they can include. It can be print articles, social media posts, advertisements, audio-visual programmes, so I encourage you to keep a lookout throughout the year and find a way to bookmark or save potential stimulus material.

There are so many possible options for this task type, and I think we can be really guided when we design this task by you know, our students areas of interest, perhaps what are some points of discussion that have really grabbed the students in class as well as our own areas of interest. And indeed, I think we could almost have students acting as scouts on the lookout for a relevant social media post for us as well. Often have students say, ah, we covered this in class and now I'm seeing examples of it everywhere. So, maybe I'll be saying great, share them with me and you know, give everyone access to the before the task and that could become the stimulus material. So, one idea would be to focus on group work and compare a social media post or cartoon about working in a group with an excerpt from a study on social loafing.

Or students could focus on heuristics and analyse a range of advertisements in terms of how they're attempting to manipulate components of our attitude and consumer buying behaviour. Or they could focus on a specific issue such as gambling. They may consider the prevalence of gambling ads and their impact as well as campaigns to remove them from sport or the very recently revealed changes to the gambling warning labels and perhaps even looking at the process that those new warning labels went through with the focus groups and things like that. So, that wraps up Area of study one, I hope it's been useful for you to grab some potential practical activities and ideas for the classroom. I'm now going to hand over to Carmen who will take you through Area of Study Two.

**Carmen Love** - Thank you Thea, that was so many ideas, it's amazing. I've got more ideas. With Unit two, Area of study two, there are three components. First is to explain the roles of attention and perception. Second, to compare gustatory and visual perception and third, to analyse factors that lead, may lead to perceptual distortions and the key knowledge here. So, broken into perception and distortions of perception. We've seen reference to attention in previous Study Designs, but not specifically I don't think in terms of making sense of the world, so just looking at it slightly differently. There's continuity in application of the biopsychosocial approach to perception and then familiar concepts such as fallibility but reference to agnosia in particular, and spatial neglect has been moved from the context of function, injury and plasticity to focus more on the perceptual aspect by placing it with synaesthesia.

And just like a side note here that with that continuity of the biopsychosocial approach, if you've got students picking up, you know, Psychology along the way that those aspects that are continuing, you might think about how you can support students to catch up on those as well as the Key Science Skills. Okay, and examples of again, the methodologies and some activities that might demonstrate, you know, how they're using those. So, across the two areas of study students are developing an understanding of the characteristics of each of these methodologies when they may be used and the types of methods that each one may involve. As Thea noted, which scientific investigation methodology are covered and when depends on your school context and students needs and abilities and then how you're structuring your curriculum and your assessment programme.

So, there is a bit of planning to do there for you, but there's lots of examples here. And most of these are available in again, in the teacher Support materials on the VCAA website. And there's maybe just a couple here that I'll highlight that are in addition. For example, classification and identification, you might provide students with a variety of agnosia descriptions, there are lots of different types and get them to identify which type it might be or ask students to classify a variety of activities according to the type of attention they require. For an experiment you might conduct an experiment to investigate the effect of descriptions of food on gustatory perception and doing that with a blind taste test.

So, if you had access to some meal worms, I know there's some good flavours of those with I think lemon myrtle and rosemary or something along those lines, describe them as mini Twisties and see you know, if students then can detect whether it is actually a twisty or a meal worm and again, you'd have to obviously take into consideration the ethics there as far as informed consent, how much debriefing, obviously debriefing afterwards because you'll be, and I've gone blank with the word, deceiving them, with deception, yes. So, yes, and the last one there's simulations, you could ask students to solve a small jigsaw puzzle without seeing the final image and that might be used to simulate the brain's top down and bottom-up processing, which I'll come back to in a couple of slides. And just moving on to highlight some of the changes to the dot point.

So, this role of attention, there's probably heaps of activities that you might be familiar with, with attention from the previous Study Design. There's now specific reference to sustained attention. With this one I find students are, regardless of when, always asking if they can listen to music while they study in class, which regularly leads to a conversation about what they're listening to, an evaluation of whether that type of music might be helpful or hindering, so you could use that possibly as the basis of you know, an experiment you could, yeah obviously, leads to a discussion about their experience with maintaining attention and links into some of those Key Science Skills which we have on the right there as far as looking at anecdote and evidence. They often say it helps me, that's my experience, but then we want to look at what the evidence from a controlled experiment might show. They will also be developing aims and questions, formulating hypotheses, making predictions and as they mentioned they can either plan the investigation or actually carry it out if you've got that time. There's Critical and creative thinking also being applied when they plan and create the experiments.

So, that might be research in terms of other research, sorry, so negative impact of video games. There's research to say that time away from social engagement and learning opportunities means video games is actually to the detriment of their ability to concentrate and use their attention. But there's also positive impacts such as training for selective attention. So, thinking about how the evidence might support either kind of view and I would assume this is a topic that all students would feel comfortable to actively participate in discussion because it's something they do all the time.

So, the activities and sharing the ideas is also drawing out that individual and collaborative scientific endeavour of getting them to participate and share their ideas. Top-down and bottom-up processing, as I mentioned, you might have referred to these in the past when teaching visual perception and gestalt principles, but they're explicitly included now. So top-down processing what's when our brain automatically applies rules based on past experience and expectations to make sense of information in a seamless manner. We're looking at the whole and bottom-up processing starts with incoming sensory input, so focusing on individual elements and then building up the image to interpret the whole.

With this first activity, placing items in a box and having students guess what they are, you can, that they're obviously going to be using bottom up first, but you might discuss how they use top down if they're, you know, turning an object around to see if it fits with their initial impressions, so trying to confirm what their overall impression is. The jumbled letter sequence is in there as well as another example and it's a very quick one, those sentences where the first letter and the last letter remains as they usually would, and the middle letters are jumbled up and yet we seem to be able to read the sentences.

So, look at how we perceive the whole and allow for errors in the detail. There's another fun activity. Agnosia is included now in looking at the fallibility of the visual system and visual illusions and I'm really glad this is here because I've always briefly digressed to outline these. I think they find them fascinating and there's so many interesting types of agnosia for students to identify and the visual illusions dot point of course is always fun. You can present students with so many illusions for entertainment, especially ambiguous figures. They love to compare what everyone can see. So, to really you know entice people in, students into this, you've got your slideshow with, you know maybe, some music or something but asking them to choose a favourite and explain why and because you know, there's obviously heaps of examples. A key distinction I think students find challenging in my experience is the difference here between sensation and perception.

So, getting that language correct with what they're all seeing and what each of them is perceiving. I often get them to create a table with the name of the stimulus and then to actually write into columns what everyone sees and then what they personally might perceive. And once they've got a better understanding of that distinction, they're probably better place to create some form of aid for people with Agnosia, which is that last suggested activity there to move on to that more creative opportunity.

This is this point on fallibility also really exciting I think this inclusion, the super tasters and exposure to miraculin. This first activity, the dying section of the tongue and seeing if they can count the number of taste buds. A fun way to investigate individual differences. I'm thinking you might ask them to take a photo in order to make counting a bit easier and then it might, you know, it's possible to compare different tongues, kind of gross, I'm sure they'll love that, and then you bring it back to applying the, you know, Key Science Skills such as validity, so the number of taste buds should be a valid measure of the ability to taste. Accuracy and true value, if you're just measuring a sample on their tongue, we don't know the exact amount, how accurate might that be?

And it's quantitative data, so number of taste buds versus qualitative data such as descriptions from people about their experience of taste. Miraculin, a great inclusion. No doubt I think students will want to try some and if your school budget can cope, it would be great to get some and any subsequent activities you obviously would highlight again ethical considerations such as informed consent and voluntary participation for tasting that. And the other activity is based around the explanation for the effect, so getting students to look at the process at the cellular level where they create a 3D model to show its binding effects on taste receptors, which is great introduction to the biological processes for Unit three Area of study one and I'll also be looking at that as a possibility of extending the activity to actually be an assessment task.

As Thea mentioned, just a reminder that in addition to the plethora of activity ideas available on the Teacher Resources page, there are detailed examples of how to implement just a few of the activities and I think this one's probably going to become a standard, a real hook you can offer your class is to taste an insect snack. So just again to make sure you are making use of all those resources. Assessment possibilities, again, there are options for all of the task types and some possibilities, and you'd obviously choose so that you've got a selection across the whole Unit. It's okay to, and Thea's already mentioned it's okay just to focus on one or two aspects of the outcome for the assessment.

So, some possibilities here include locating of a case study on agnosia. I had a quick look and there are many, some of them are quite detailed and long, so it might be that you just take out the, or edit it yourself for your students depending on what think they can manage, and look at some of the interesting ways that they've decided to test the agnosia to diagnose patients, which reveals a lot about, you know, how we think their brain works and how we can identify that through, not brain imaging, but through their abilities.

So, you could ask students to get a diagram or a flow chart showing the four-stage model for object recognition and test that they are able to read through in the case studies. There's great scope here to apply the Key Science Skills, especially creativity and problem solving in terms of those tests and looking at possible cultural bias in the test content, validity, repeatability for testing of a single patient, and also the ethics. Some of the interesting options to have a closer look at in terms of assessment is looking at an ethical dilemma and that will obviously encourage debate and discussion, you know, could really stretch some students and give them some creative opportunities.

As I mentioned with the modelling or a simulation activity so that you've got, you know, opportunities for students with different strengths to experience success. The assessment option that I'm going to look at in detail is the response to a psychological issue or ethical dilemma. And when I was looking at this like the ethical concerns around media and advertising for ethical behaviour such as gambling that Thea mentioned, like you could, you could turn that into an assessment as well and it's very closely linked to the content, or sometimes I suppose you can extrapolate a little bit and look at ethical concerns for like a little bit of a tangent, but it's definitely linked still to the content. So, for this, you know, either way, the description here about the type of assessment highlights that it could be classic or contemporary, the ethical issue and should require students to identify and discuss the psychological concepts and ethical concepts and the way that you do it is either very structured or it could be much more open, again depending on your students. One way that I would do this, I suppose was initially looking at the ethical dilemmas in relation to visual perception and two that I found I've summarised here.

So, one was that bionic vision and the developments in technology to assist people who have vision impairment, looking at how responsible the providers of the technology are when the recipients are using it. So, for example, if the technology resulted in a misjudgement by the recipient, whether, and you know, if that misjudgement was either the, you know, cause of harm or could possibly cause harm, how responsible they are. So, one really simple example was if their vision was improved but they still don't have, you know, obviously perfect vision and they're making, you know, a judgement about their finances but they're not able to, you know, read them accurately and they've misjudged something. Is there any responsibility for the makers of the technology and should they be providing it with the option for people to have a mild improvement or should it be 100% reliable? The other issue that came up was the use of facial recognition research. And there seems to be a lot of evidence that involves researchers collecting footage of, for example, students or people in cafes or just people in public who are not giving their consent. And then those images of faces are being used to train AI to detect particular features.

In particular there was a couple of articles about China using the technology to identify Uyghurs, which might be of interest, I guess for the ethics there about whether the developers of that technology have any responsibility about how it's used. I guess I'd see with any of these ethical dilemmas where my students' interests lie and focus in particular on something that really sparks that conversation and discussion, it might be getting a particular news article that we'd analyse and annotate in class and so they're all feeling very confident about understanding the issue and have an opinion and then perhaps in the assessment task I'd give them a blank copy of the article and or something very similar with a prompt question and maybe some key dot points that they could respond to in a sort of structured mini essay.

So, for example, a question could be "To what extent are researchers in the field of facial recognition by artificial intelligence responsible for the ethical use of their products?" and then prompt them to include in their response a definition of perception, an explanation of how AI may reflect human processes of perception, like top down or bottom-up processing, an evaluation of the possible fallibility of such systems. So, linking back to that key knowledge and again the role of ethics specifically like beneficence and non-maleficence in the application of the technology developed through research. And respect, You know, where do the responsibilities of the researchers end? Another assessment option as I mentioned, the model or simulation. So, it's that totally different kind of option which might appeal to students with very different set of skills. So really good to think about the combination of tasks that you're going to select that they do provide those different opportunities.

There's also a few ways to go about using this option and it's great to have some suggestion in the teacher advice and one way that I've chosen to use this task with taste perception, I'll just go into now. So that 3D model of miraculin could be using materials of their choice, so either crafty bits and pieces for hands-on students or it could be completely different, a computer programme if they were technologically inclined, and I'd probably spend class time working on the model with them so that the model shows its binding effects on taste receptors and the subsequent impact on perception. And then I'd require students to submit that along with an explanation of perception, so gustatory and visual and other examples of how perception is fallible.

That bit I'd most likely have students complete in class like with their models available as a prompt and you could either prepare them with the exact questions that they're going to get or provide them with a range of questions beforehand so they can prepare and then they just get a selection of them on the day, or it could be completely unseen. Just a last few points while we're on assessment, there's a reminder here about the updated terminology for experiment types, so if you are planning to use any of those options like analysis and evaluation of an experimental case study, the data analysis of generated primary and/or collated secondary data, the literature review, or the report on the scientific investigation with the generation analysis and evaluation of primary data that it's worth revisiting the controlled experiment types and these can then, you know, they can be woven into the activities or referred to when you're annotating resources and you know the more often that students are exposed to examples the easier it is for them to distinguish between them.

So, we've got the types there. This is an example actually running one in class, as an example you could, as teacher led-, you are getting students to have a look at the colour of the impact of the colour of lemonade on their taste perception. So, the options, so either between subjects where they taste one drink only in one colour, within subjects, where they might taste all three or a mixed design, so having two IVs, either the colour of the lemonade and the size of the cup, or maybe the colour of the cup, and students taste only one drink. And then obviously choose, or you may do all of them if you wanted to, or split the class into groups and have them work on one each to build it in.

Alternatively, the class could design and run an experiment on the influence of perceptual set. You're probably familiar with the ratman or B-13 ambiguous images. Create a document with the main headings for the method, so really run them through the aim, subjects, ethical considerations, type of study, step-by-step instructions, data collection sheet as you can see there. And the important point here for them in discussion is deciding on the controlled experiment type and explaining why between participants, in this case, would be the best option. We can't use within participants because once they viewed the ambiguous stimuli they'll form their first impression, and if used within participant's design they've already, sorry, yes, formed their first perception which would greatly influence the validity of the study. So, therefore mixed design would not fit as there's no within participant's component.

These are some really simple activities like performing calculations, it's quick deciding on appropriate graph, again a quick check of decisions and check-ins that they're applying their understanding just to reinforce those concepts and give students practise as you go along. And so, assuming all of this is being covered, if you were going to do Unit, Area of study one, Area of study two, they would be more than ready then to move on to Area of study three, which Erin is going to now cover.

**Erin Wilson** - Thanks Carmen. So similar to the previous Study Design, there is the capacity for students be able to either adapt design and then conduct scientific investigation related to either area of study one, Area of study two or both area of study one and two depending on your class cohort and what they're interested in and then really to satisfactory complete the outcome, they've got to be able to draw an evidence-based conclusion from generated primary data. I think that's an important thing that we want to consider when we're thinking about what the outcome might look like in terms of adapting, designing, conducting the scientific investigation and then how we might design an assessment task, to assess perhaps their level of achievement. I've just got the key knowledge here and I hope that you're familiar with it, or you will be once you start to think about planning Unit two, but what I really wanted to just put highlight there in blue is that the selected scientific investigation can be selected from those ones listed there.

So, it could be a classification and identification investigation, identification investigation, it could be a controlled experiment or correlational study, fieldwork, modelling or simulation, and it's really about making sure that students generate primary data. I think the thing to be careful about when you're thinking about modelling is that it's not just developing a representation of a model, it's actually going through that process of designing a model and then thinking about testing or explaining it, thinking about where the limitations of the model are too, or adapting an existing model so it's not just recreating a representation of a current model that's out there. There are links to knowledge that they will have potentially gained in Unit one. Particularly around scientific evidence.

So, if students haven't undertaken Unit One, then you will need to potentially think about how you provide additional scaffolding and support in relation to this. I think that you know, we are thinking about observations and investigations that are consistent particularly into area Unit One, Area of Study Three. When we start to think about science communication, we've provided them opportunities in Unit One, Area of Study Three to really engage with the way that different scientific information is communicated. You are wanting to think about how you're going to scaffold and support students in relation to that, and hopefully if we are thinking about when they're adapting an existing experiment or investigation or they're designing their own, they really are able to build on those skills that they've developed in Unit one, Area of study three about what valid psychological research is and what it looks like and those concepts around uncertainty and data and measurement as well. The extent to which you expect students to report on their investigation is a school-based decision. The outcome statement asks you to assess students on their ability to draw an evidence-based conclusion.

So, you could choose, there's suggestions here, it says such as, so that's not necessarily mandated, you just have to report on a student adapted or student designed investigation including a selected format. So, if you want to use a different format that's not listed in a Study Design, you certainly can, you could get them to do a graphic organiser, but there are suggested ones here for you, and then extent to which you get them to report on that is obviously a school-based decision. Because it is a student adapted or designed investigation, it should be a guided, coupled or open inquiry and there's information there available under the Scientific Investigation section of the Psychology Support materials, which I know are a little bit hard to access right now, but next year once we roll over into the new Study page it will be much easier to see those links.

The same inquiry approach from methodology may be undertaken by the whole class, or as I mentioned earlier, you could have different inquiry approaches or methodologies being undertaken by different students in the class and that will obviously depend on the nature of the investigation, students prior science skills and also the level of complexity that you've got available, the amount of time that you've got available as well. It does require that you will scaffold and teach the key knowledge associated as well as the Key Science Skills, and I think it's really important, again, where you choose to do it within Unit two will be dependent on the level of student independence, whether you think your students are ready to design an experiment themselves, or you want to provide them with that opportunity, so it might be most appropriate to do it right at the end of Unit two leading into Unit three, the content that the investigation will relate to, if they want to do fieldwork and they want to go out and do a survey or a questionnaire or they want to test some heuristics or they want to be able to investigate stigma, perception and stereotypes, is it an appropriate time of the year? Who are they going to access? Do they want to arrange/involve a different range of age groups?

You may choose to also assess components of the student logbook as well as their final report for that aspect as well. And regardless of the format chosen, what you need to do is make sure that you assess them all in relation to whether they've satisfactorily completed all of the outcome, aspects of the outcome. I think Thea and Carmen have provided you with a fantastic range of ways that you could scaffold student learning and I know that we've had some discussions or been thinking about how we are efficient in terms of our planning and our teaching and our class time and the practical work and while there's a minimum of 10 hours class time to be devoted to practical activities across Areas of study one and two, I think that using that opportunity in the previous skills that they've developed through any of those practical investigations in Area of study one and two can provide a really rich basis for the extension in Area of study three. I think you don't need to do a whole new area of study investigation or a whole new investigation related to new key knowledge, it can be an extension for something that you've previously done.

So that's where I've got a couple of sample approaches here. You could just provide a couple, a list of topics that you know are potentially feasible in your school cohort, it may be individual students, groups or classes. So, this is where it's different to Unit four outcome three and it's this scaffolding that's provided into Unit three and four is that it can be done in groups, classes, but the report must be done as individual responses to get that satisfactory completion of the outcome. So, you could provide a list of topics, you could have a flipped classroom. The students have complete open choice of topics. Some schools have a small cohort, and they can have a whole range of students doing different investigations, particularly if you're in a small school partnership, But other schools have much bigger cohorts, so they need to have more constraints on the choice of topic.

You could have students vote, so they could all design a topic or all design an experiment, or all design a survey and a questionnaire and then you have a class of vote to say this is the one we're going to do. Now obviously that's a good opportunity to link to sample size and validity just say, well, if you are all wanting to go and do a survey and interview 20 people and we do the same survey and interview 20 people and we increase the sample size, what will that do for our data and results from that aspect? You can then of course, as I say, build on prior class investigations or give them a research snippet and as a stimulus for investigation, the students propose a research question, methodology, method, and then you approve it because we've obviously always got to make sure that it's safe, ethical, and manageable.

You could also give them just a specific methodology, so if you wanted to say, well we are going to do fieldwork, I think it's really useful and interesting for us to go and do a survey or a questionnaire or we want to design a product process or system, you can certainly just choose one methodology and not have that range, so that's the opportunity as well too. As I mentioned, any of the scientific methodologies that are highlighted in blue that enable primary data to be generated are appropriate for Unit two, outcome three. That might not mean it's a controlled experiment and so that might mean that you don't have students develop a hypothesis, but instead they develop a prediction because you're not going to have an IV and DV or it manipulated. If you do decide to do a controlled experiment, the variables don't be need to be operationalized, but they should be able to detail how they will manipulate and measure the IV and the DV.

And I think the really important thing to link there is back to the concepts of uncertainty and reproducibility and repeatability and the more specific we are in terms of how we will manipulate the IV and measure the DV, the more likely we are to have a psychological construct that's easily defined and then able to draw, increase the internal validity and reduce the extraneous or confounding variables from that perspective. When we're talking about students drawing and evidence-based conclusion, these are some other things that you may require them to do to be able to support that evidence-based conclusion being made. Students may have to analyse their own primary data. You could give them a whole heap of de-identified class data or collated class data to increase the size of the data set for analysis.

And again, really just linking back to the skills that they've learned in Unit one, Area of study three that has asked students to consider the criteria used to evaluate the validity of psychological research and then asking them to think about sources of biases, appropriateness, application of data and assumptions and limitations that might be existing. I've got a sample timeline here for a minimum of seven hours class time, which is allocated in the Study Design for Area of study three and that's obviously the application of undertaking the design, generation of data and then the report. So, you could get students, group or classes identify a research question or the teachers give them it.

You commence data generation; it doesn't need to be completed in a single block of time. You've got, as I said, different students could undertake different investigations and they may complete some of this outside of class with appropriate authentication.

For Unit three and four, there is the VCAA school-assessed coursework authentication form, that's obviously for Unit three and four because it's for school-assessed coursework, but you could adapt and develop your own authentication form that you get students to sign and fill out and complete if you want them to complete any work outside of class. And then using that logbook to verify students responses and authenticate their work as well. So, students may work individually or in the group to undertake their investigations, but what you want to do is each student needs to presents the finding of their investigation individually and that's what you'll assess their satisfactory completion or their level of achievement against.

I think we've got to the end of the presentation and we're pretty much on time, so we'll have a little bit of time for question and answer, but one of the things I want you to think about really is in relation to, you know, what worked well last year and what worked well in relation to Unit two of the current Study Design, there is opportunities for, new opportunities in the Study Design and some of those have already identified areas where we think there is possibilities of change or strengthening students engagement in topics.

There's a change of Area of study in order and there's some new opportunities for students to engage in the scientific investigation methodologies. How will you potentially update or change the way that students are involved in the student adapted or designed investigation? How will you strengthen and support students' logbook? What skills will they have gained in Unit one in relation to the logbook that you will then scaffold and support in Unit two? You might do it slightly differently. You can engage the logbook differently in Area of study one and Area of study two to help prepare them to move into Unit three and four if that's what they're going to choose to do. And then really thinking about how you will support students to get that feedback to really enjoying the study and do their very best and think about what opportunities they might want to move forward either at the end of year 11 or at the end of year 12.

We've got a little bit of time now for questions and I see that there's a couple in the Q and A box, so if you've got any more that you haven't put in yet, I'll just give you a couple moments now to put the questions into the Q and A and then we might have a look at them and see what we can answer and Thea and Carmen, if you and have a look at them too. We'll see how we go. Okay, so the first question I've got is, a lot of the examples provided this afternoon sound fantastic, but it would take dedicated class time to ensure they're done properly. Would you recommend fully covering content before introducing these sorts of assessment tasks or using them as a vehicle for delivering content? Thanks for the food for thought. Does one of you want to start and then I'll give my perception? What do you think, Thea?

**Thea Carbines** - I think it depends on what the activity is. So, I think lots of the ones that I talked about, I would probably use them as tools to deliver the content because I think it grounds the theory in a tangible little activity. For example, that riddle with the implicit bias, I would do that before I deliver the content on implicit bias because also once you've delivered implicit bias and then you're trying to do the riddle they're already too onto it. So, some of them I'd definitely used as tools to deliver the content. Other ones, for example, looking at different advertisements, I would have covered the content on heuristics first and then I would apply that to examples of the advertisements. So, I think it just depends.

**Erin Wilson** - And I think it's, yeah, that's great Thea, and I think it's a really good thing to think about that satisfactory completion of an outcome is evidence over time. So, you know, getting them to apply their understanding to an advertisement could be a great opportunity for me to assess their understanding of the knowledge and how they're moving towards understanding social cognition. So, I might use that as anecdotal evidence to say, yes, they're on the way to understanding the aspect of the outcome and then I'm only going to choose one of the activities that I've done in the course of that whole Area of study to extend as an assessment task for levels of achievement. So that's probably, I think, a good balance to think about too. What would you do, Carmen?

**Carmen Love** - I was just going to make the point that, you know, doing things properly sometimes, it's okay to make the errors while you're delivering some of those methodologies because that then is the basis for a discussion on how it could be improved or some of those aspects. You're like, see if you, you know, were a researcher and you'd done this and you hadn't thought about it beforehand, you would then have a problem. So, I think sometimes like making, you know, or having a few errors in it is actually beneficial.

**Erin Wilson** - Yeah, and that's a really good point about enacting science as a human endeavour or Psychology as a human endeavour and using, we are looking to seek to explain the world or solve problems in the world and psychological content and understanding for that one as well. I've got a question about can the student designed, or adapted investigation be an extension from Unit one or only Unit two? It does need to be linked to the key knowledge relating to Area of study one or Area of study two in Unit two. I guess what you can potentially do is further extend the content that they have covered in Unit one, so if you are looking at defining and supporting psychological development and so you're looking at social and emotional wellbeing and then you then focus on stigma and discrimination and what that does, it's linking to, but it does need to link to content in relation to Unit two in particular for that Area of study.

All right, I think that they're the two main questions we've got. I'm going to say thank you very much everybody, all the very best for delivering Unit two. I hope that you do find it enjoyable. I think there's some fantastic opportunities to make our students active and engaged citizens and critically think about the information that they are experiencing, encountering, and that Unit two really does provide an extra extension, I think, to some of the content that they've done in Unit one. So, they're going to, you know, they look at concepts of normality and neurotypicality and now we've got that opportunity to really think about what it means in terms of social cognition or what it means in terms of perception and drawing on those skills as well.

So, on that note, I'm going to say thank you very much. Thank you, Thea. Thank you, Carmen, and all the best everyone. The last slide I need to show you is that if you have specific information, you can contact me relating to the VCAA Psychology Study Design, or if you have information relating to the delivery of the VCAA or satisfactory completion or authentication or special provisions for students because of course we know that there is a range of students that undertake VCAA Psychology, then you can contact the VCAA curriculum Unit on that email address listed there, thank you.

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