ELICIA FORD: Hello, my name is Elicia Ford. My role is National Disability Coordination Officer, and I'm coordinating with ADCET on this event. I want to welcome you to this session: Using UDL to lighten the load on executive processing in a very large unit, and our presenter is Dr Natasha Todorov.

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NATASHA TODOROV: Thank you. Thank you very much. Hello, everybody. I would like to introduce myself. My name is Natasha Todorov, and I work at Macquarie University, and I teach in a very large first year psychology unit, and I teach along with my assistant/convenor Eva Satchwell. And our unit has had a growing enrolment over the last few years. The median enrolment has been about 2,500 students, and with that very large enrolment, I began to suspect that we’re also seeing an increase in the number of students who identified as being neurodiverse.

Now, as you all know the term “neurodiverse” is an umbrella term that takes a variety of different diagnoses with very different symptomology, but there is one aspect cognitive function that they have in common, and that is a difficulty with executive processing abilities.

Now, students who have a difficulty with executive processing might have difficulty in any combination of the following abilities. They might have difficulties with ability to plan or to organise, or memory difficulties, or the ability to set appropriate goals, or shift from one task to another, and maybe even the ability to appropriately self-reflect on performance. And what I'd like to talk about today to you is the way that we've been trying to support our students and ease the barriers to their performance on our unit by lifting the load on these particular tasks.

So, research indicates that factors, such as available cognitive load, in university students with disabilities affect their academic performance. So, anything that is going to lift processing requirements off a task will assist academic performance on that task. So, in the case of our students, we wanted to see if we could use universal design - universal design to make the ability to plan and organise easier, to lift the load on memory, and to teach students strategies to reflect on their performance and make clear and appropriate goals. In other words, our aim was to reorganise the way we presented material to our students in order to target specific issues to do with executive processing.

And what I'm going to do is use our unit as a case study and present these as tips. They're very low technology type tips. They're very easy to apply across any unit, I guess, or across the faculty, and hopefully you'll find some of these things useful.

The first tip I have for you is to explicitly teach time management. This is an important UDL checkpoint, and we provided this in three ways. We taught time management by providing a timeline for success, so making a concrete plan for our students. We backed it up with to-do lists. Again, very concrete set of to-do lists that spoke directly to the plan. And then I also provided a weekly newsletter, that acted as a reminder reinforcer. So, the aim was to provide concrete time management plan and a set of reminders that would lift the load off students’ planning and to also provide an exemplar for planning; in other words, to teach the students how to plan an entire semester ahead and to show them that it was, in fact, possible to do all of the tasks that we're requiring them to do.

Secondly, we explained all the random relationships that you might come across in a university course. First year students don't know a whole lot about the way universities work, and so we provided a whole series of scaffolds to explain to them how universities work and what all the relationships are between the various new tasks that they're being asked to do. So, for example, in a first-year psychology unit, students are taught a whole variety of different topics in psychology. We have seven in our unit. And in each of those topics, they will have lectures, they will have tutes, they'll have texts, textbook chapter to read, and then are a topic test. Now, we will all understand how all of these things fit together, but students, first-year students don't necessarily understand how all of these tasks fit together into a learning activity.

So, a scaffold provides them with a procedure for learning, and part of that scaffold was providing learning objectives for all of the lectures and tutorials. Students really love learning objectives. They really loved the ticker boxes, the lists, the to-do lists each week for time management, and they really liked the learning objectives. These were ways of focusing their attention on what was important. What was important in time management each week, and what is important in terms of all the words and all the information that we were providing for them. So learning objectives were a very important part of explaining to them the relationship between all the different activities and helping them to focus on what was important.

Taking notes is a very new first year activity for our first-year students. They may not ever have had to take notes on their own from a stream of information provided to them, and learning objectives help them provide those notes.

Okay. We also explained to them all the university rules. So, for example, I have an image here of a child's primary school classroom list of all sorts of rules. So, no pushing, no biting, no fighting, no kicking, no touching bees, no throwing food. No touching bees, I'm pretty sure there is a story out there for that one, and I know I would like to hear it, and in the same way that I'd like to hear that story, our students really love to hear the stories behind all the rules for the University. Universities have weird rules. They want you to attach extension notes and extension approvals on to the back of essays. They want you to fill in this form but not that form. They want you to do all sorts of things. Do it my way, don't do it your way. It has to be done in a specific way. So, we just don't list our rules anymore. We explain those rules and this has been a really useful UDL checkpoint.

Students are less upset when they know why they have rules to follow, and it's made for a much easier life for all of us, for the students themselves, because they are learning about how a university works, and for us, because the students are more likely to follow any particular rules that we need to have them follow.

Tip No. 3. We present students an awful lot of information and how we present that information is exceedingly important. The UDL guide suggests that we chunk and differentiate information for easier processing. The way we've chosen to do that is to go by documents, even long documents that are presented with subheadings and all those sorts of things, and we've changed that to producing booklets of information. Booklets of information that are differentiated in the type of information that present, and this has actually been very important for us, a very important innovation for us.

So, I've got an example here of our essay assessment booklet. The essay assessment booklet used to be a long document that had information about the task and then the start of references and then the penalties and then how to get special consideration and then what to do about essay feedback, and so on and so forth. Now what we do is we put each of those individual pieces of information into a separate chapter. Each chapter is really short and it covers one piece of information and one piece of information only. The students can go into each of those sections and read a specific piece of information. And that lifts the load. They don't have to go searching through a long document to find what they need to know. They can go into short chunked-up pieces of information. And sometimes that is a bit too much. So we differentiate that information by putting a single summary page, an abstract, if you like, a summary piece of information that is on the front page so that if people don't want to go digging around or can't go digging around on a particular day, they can go to the front page and they have, basically, a single line of information that summarises the really important stuff. When will results be returned? How much is it worth? When's the due date?

So, we have chunked and we have differentiated the information, and so we don't have single documents anymore, we have books. And these booklets are downloadable and they are printable and they can be downloaded into a Word document, as well, which makes them able to be put through a - sorry, folks, I'm losing my words now. They will be able to be put through a Word processing machine. Oh, dear Lord, I hope you know what I'm trying to say. I'm on a time limit here and I want to get those words out. Okay.

Tip No. 4. Encouraging academic resilience and explaining the role of generic skills. This is very, very important also, and again, another scaffold. The students are getting scaffolds everywhere to provide them with little mnemonics, little reminders, memory reminders of the things they have to do. So, they have a four-step reminder for academic skills, and here we've got a little three-step scaffold for their generic skills.

The important generic skill of time management has its own little special tip because it's so very important, but we do have other skills that we teach, generic skills that we teach specifically to our students. We teach them active learning strategies, we teach them academic self-reflection, and we teach them active help seeking behaviour.

Now, the UDL checkpoint that I'd like to bring to your attention here is multiple means of representation. All of this is done in a variety of different ways. We've got materials that are presented in writing. There are videos, and students also have little tasks that they can engage in to teach and practise active learning strategies, to teach and practise self-reflection, so that if they do self-reflect, and they do find that perhaps they need to seek assistance because they're not doing as well as they might have hoped on a particular unit, on that particular unit, then they can go and seek assistance. You can't really do these first two steps without offering people the opportunity to seek assistance.

In order to make seeking assistance easier, we come to the last step that I'd like to talk to you about, and my final tip, which is to make help seeking easier. Without help seeking, none of the rest of it is of any much use. If students are suffering from anxiety, panic trauma, or any kind of stress, they will find it a lot harder to search for information themselves and help seeking information comes under that heading.

So, one way of reducing the cognitive load is to put all of that information in the one spot for them. So I created a student support services hub for my students. It's a booklet of information that I sourced from at our university website, and it includes all of the technical, academic, personal and crisis support that's available, and students who might be stressed and unable to search for all this information themselves can go to those student support services hub and get the information from there. It reduces the cognitive load, makes it a lot easier for them to find the information.

Over time, I broadened that information to include non-university resources, as well. Information that was both available for students in Australia. Also, students who were based overseas and the resources were for a number of diverse groups. So, it's a very, very broad-based assistance that is available to the students.

ELICIA: Natasha, just letting you know we have five minutes to go in the session.

NATASHA: Excellent. Did it help? We think it did. This was a very brief description of what happened after one year. We found that students’ achievement went up and satisfaction stayed high. So we were quite happy with that. And I've galloped through this, so if you're interested at all of looking at more of the details, these are some ways that you can find an article that goes into more detail about these different techniques. Okay. Any questions?

ELICIA: Thank you, Natasha. That was an excellent presentation.

NATASHA: Okay.

ELICIA: There is a question in the Q&A box which I will pose to you in a moment, and I will ask our audience to put any additional questions you have in the Q&A box, please. We do have just a few minutes for questions. So, our first question, Natasha, is from Amy. Amy says I love the explanation to accompany the rules. It's so meaningful. Does this also include the consequences, if they are unable or choose not to follow the rules? And that they are responsible for their own learning and submitting assessments, et cetera?

NATASHA: Yeah, it does. I have to say I have a very pastoral approach to my very large group of students, but yes, everything does come with a consequence, and everybody does understand that there are consequences to not following the rules. But we do explain everything, and I think that's very important, and it's respectful.

ELICIA: Thank you, Natasha. We don't have any other questions in the Q&A box, but while people think of those questions that they might like to ask, there are a couple of feedback items, I suppose you'd call them, in the chat box for you.

NATASHA: Uh huh.

ELICIA: So, Amber says “thanks so much for sharing your work. It was so helpful to see UDL principles in action”, and Tamera says “that was really informative. I think they are excellent strategies, particularly the check lists and to-do lists. I would have found that so helpful when I was studying”. And Jenny is looking forward to reading more about your strategies.

NATASHA: Thank you very much.

ELICIA: We do just have tame for one final question, or possibly two. We've had just two come in. We'll see how we go. If we don't get through all the questions, Natasha, we might pose those to you after the symposium and see if you are able to provide us some written response.

NATASHA: By all means, yes. My email is available on the first slide, so by all means, email me.

ELICIA: We do have just a couple more questions here. Alana has said that she loved the practical tips and she said you mentioned the role of explaining generic skills like time management. Would you recommend providing the estimated time required for a task to help with time management, given that students have different abilities and work at different paces, it might not be accurate for everyone, or is there an alternative you'd suggest to this?

NATASHA: Okay. I don't say a task is going to take X hours or X minutes, but I give - maybe the best way is to go back to that slide. This is what I show people. I give people a plan. A suggested plan. So, we have an essay. It's due in week 7, and so what I've done is provided people with a suggestion for how long they can spend preparing for it, how long they can spend writing it, so three weeks to prepare for it, three weeks to write it, and one week to revise it. That is a very, very broad idea of how you might spend the time. A lot of people are going to prepare, write and submit it all in one week, okay, that could be as high as 70 or 80% of the students, but this is an alternative way of doing it, and it's broad enough to take in, you know, most people's level of capacity, I think.

ELICIA: Thank you, Natasha. I will have to end our session there. We very much appreciate your presentation. We will forward other questions that have come through to you, and I would invite everyone to head back to the lobby for your next session. Thank you.

NATASHA: Thank you, everyone