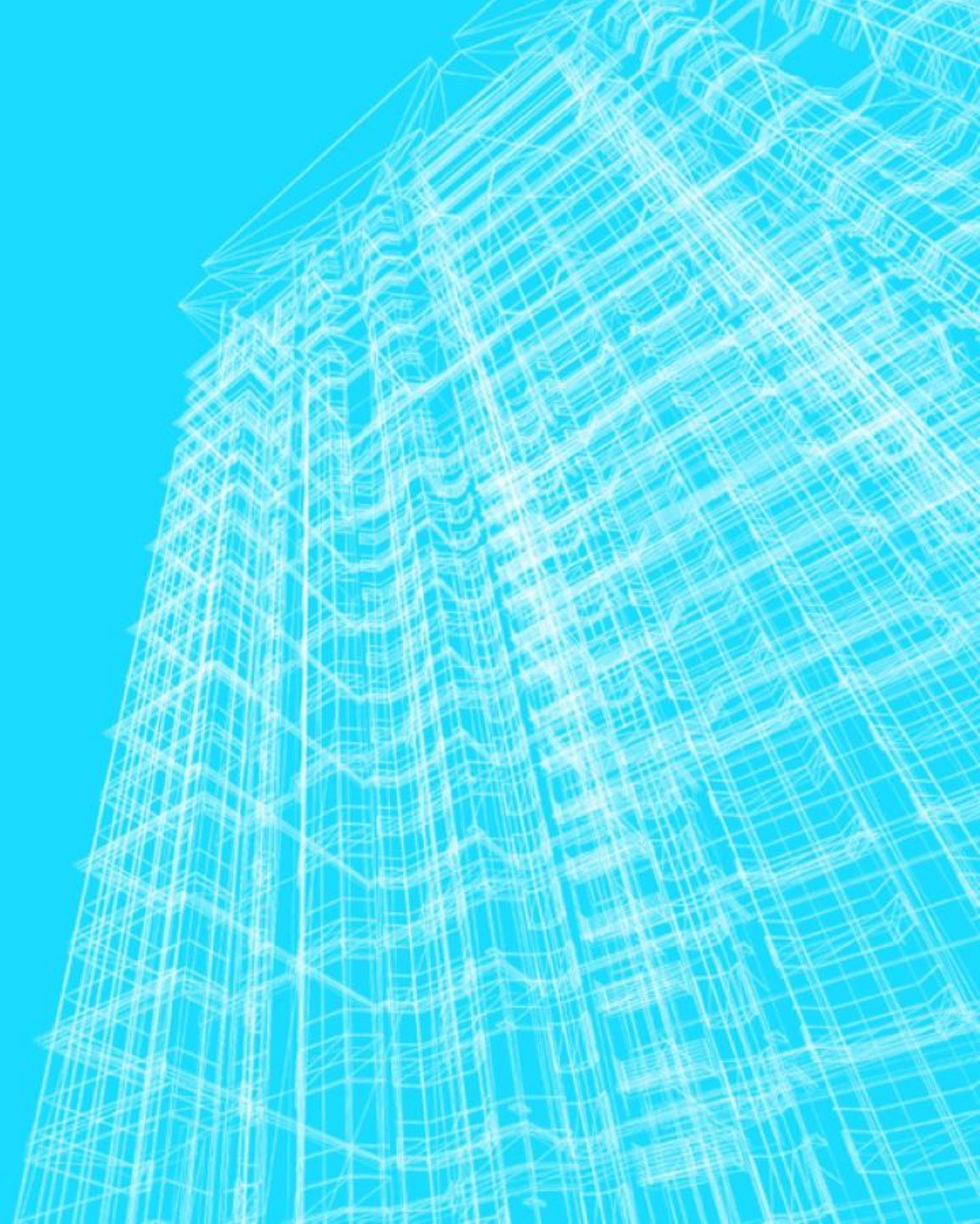


INCLUSIVE TEACHING PRACTICES

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ABOUT ME

I currently teach YR1 students on the BSc in Computing.

- Web Design and Development
- Introduction to Programming
- Object Oriented Programming

Prior I worked for over 7 years as the Computing Support Tutor.

- Working 1:1 with students who needed extra practical help
- Working with small groups of students



OVERWHELM

I looked to reduce overwhelm by considering the following:

Cognitive, or thinking, load.

Clarity.

The learning pause.



CLARITY

In programming we need to store data.

The naming of variables where we store that data is important.

It can make code easier or more difficult to read.



CLARITY

For example:

```
public class FirstProgram{
    public static void main(String args[]){
        //variables to store data
        int num1 = 3;
        int num2 = 5;
        int result;

        //operation
        result = num1 + num2;
    }
}
```

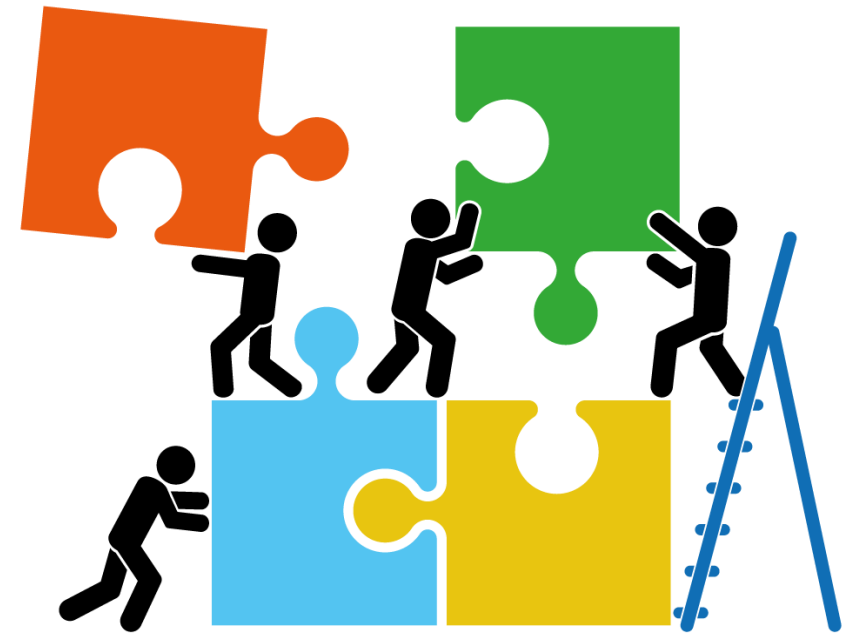
INCLUSIVE TEACHING

Universal Design for Learning: UDL

Setting our students up for success through scaffolding.

Reducing the cognitive load by staying on track and not adding extra content in until the basics have been fully covered.

Include pauses to facilitate learning and reduce overwhelm giving students a chance to process.



REFLECTION ON MY TEACHING

My teaching is underpinned by reflection.

I use Schon's model.

It is about reflection-in-action and then reflecting after class on the actions I took.

REFLECTION *IN* ACTION

Reflecting as something happens

- Consider the situation
- Decide how to act
- Act immediately

REFLECTION *ON* ACTION

Reflecting after something happens

- Reconsider the situation
- Think about what needs changing for the future



IN SUMMARY

To reduce potential feelings of overwhelm:

- Bringing as much clarity as I can to the topic
- Using clear naming and terminology to reduce the cognitive load
- Incorporating the learning pause

Using UDL:

- Scaffold the content from basics to more complex code or concepts

Underpinned by Schön's reflective model:

- Reflection-in-action
- Reflection-on-action



REFERENCES

Cognitive load: <https://curiouslionlearning.com/8-principles-for-managing-cognitive-load/>

UDL: <https://udlguidelines.cast.org/>

Learning pause: <https://link.springer.com/article/10.1007/BF01069238>

<https://www.uwyo.edu/science-initiative/lamp/active-learning-spectrum/writing-incorporating-pauses.html>

Schön's reflective model: <https://marcr.net/marcr-for-career-professionals/career-theory/career-theories-and-theorists/schon-reflection-in-action-on-action-1983>