



Exploring The Zones of Regulation in Aspect classrooms: understanding implementation and teacher perspectives

Research team

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Community involvement statement

This research study was co-produced with education staff members including school principals, occupational therapists, psychologists, teachers, and consultants who work at an autism-specific school and were invested in the research to improve and inform their own educational practice. The schools and staff members involved were committed to a continuous improvement project where one of their goals was to examine their use of The Zones of Regulation and to support the addition of a research-base for this commonly used curriculum tool. The project also was reviewed and monitored by Aspect's Think Tank and Autistic researchers.

Background

Autistic individuals experience disproportionately high rates of mental health challenges such as anxiety and depression, which, coupled with inadequate professional support, has led to the current mental health crisis in autism (Mandy, 2020). The increased occurrence of mental health challenges has been partially attributed to emotion regulation difficulties often seen and reported by Autistic children and adults.

Emotion regulation is a complex process of monitoring and modifying our emotional responses. The stages of emotion regulation include:

1. being aware of one's emotions and the context in which they are occurring
2. activating the goal to regulate and selecting the best strategy or strategies
3. implementing the strategy or strategies selected
4. monitoring the effectiveness of the strategy or strategies selected for regulating.

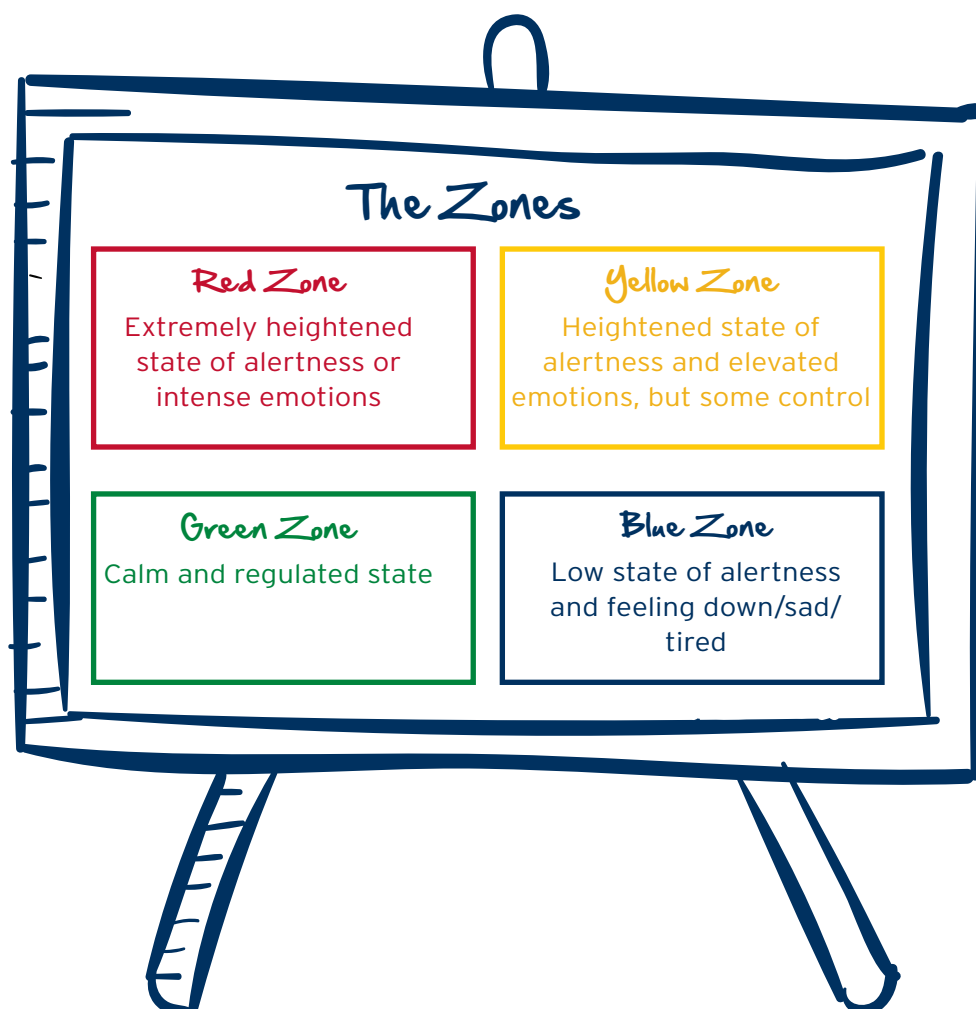
A recent systematic review found that Autistic children have poorer emotion regulation abilities and use simpler and/or less effective emotion regulation strategies during times of distress than typically developing children (Cibralic et al., 2019). Similar to the general population, emotion regulation difficulties in Autistic individuals are related to a host of adverse outcomes across the lifespan, including increased mental health difficulties, poorer social skills and engagement, and lower academic performance (Berkovits et al., 2017; Cai et al., 2018; Cai et al., 2019; Konstantareas & Stewart, 2006).

The Zones of Regulation

There is emerging evidence that emotion regulation difficulties in Autistic children can be reduced through interventions. Reyes et al. (2019) stated that several components of Cognitive Behaviour Therapy (CBT) and mindfulness interventions may promote emotion regulation skill development in Autistic people. These include explicitly teaching about emotions while incorporating the ongoing practice of emotion regulation skills. A curriculum that has been used in schools across Australia to help children, including Autistic children, develop awareness of emotions and skills for regulation is [The Zones of Regulation®](#) (The Zones).

The Zones is based on CBT and aims to promote emotional self-regulation skills. The curriculum was designed to be implemented by anyone who supports a person who is experiencing difficulties regulating their emotions (e.g. educator, allied health professional or parent). The Zones curriculum has been created for children as young as four years of age up to adults, however the content and discussions need to be individualised (e.g. simplifying for young children or matching the maturity of older students/adults). The curriculum includes extension activities and suggestions for how learning activities can be adapted for individual needs. The curriculum consists of 18 lessons (taught over 17 weeks, minimum of 30-60 minutes per week) which include a range of group instruction, games, videos, worksheets, handouts and independent activities.

The Zones uses four colours to help people become aware of their feelings, behaviours and thoughts, and provides them with strategies/tools to self-regulate depending on their zone:



The end goal of The Zones is to support learners in creating a toolbox of techniques, strategies and/or sensory supports that can help them move between The Zones and ultimately self-regulate.

Does teaching The Zones lead to better student outcomes?

There are no peer-reviewed studies that have examined the feasibility or efficacy of The Zones for supporting Autistic children. An unpublished study in 2015 of 46 US preschool children found no significant benefits of participating in a modified Zones program (Kuypers, 2020). In Australia, The Zones has been embedded into a school practice model (REWIRE) at one NSW Department of Education school. The REWIRE practice model aims to facilitate a school environment that can adequately support the needs of maltreated and traumatised children within the NSW public education school. Although the school counsellor reported positive outcomes, no outcome measures were used (Costa, 2017).

Current implementation of The Zones at Aspect schools

Written by Danielle Roxburgh

As part of the Aspect Comprehensive Approach (ACA) to providing positive behaviour supports in Aspect schools, a range of Tier 1, Tier 2 and Tier 3 supports are used within the Aspect school setting. Various emotional regulation tools and supports are available, including though not limited to resources referencing the formalised The Zones of Regulation Curriculum.

Staff receive informal training on The Zones related concepts and language as part of their induction, and various Zones-based tools/emotional regulation supports are available to all staff through the G drive (resources created by staff and non-licensed material). Additionally, mentorship and support with resource development is accessible through collaboration with colleagues including fellow teachers, Coordinators and the Learning Support Team.

At the beginning of each year, The Zones check-in hubs are set up in each classroom, with the complexity of tools and resources used individualised to each class cohort (and teacher knowledge and experience). It is encouraged that teachers use The Zones terminology, concepts and emotional regulation support tools with students on a daily basis to maximise learning outcomes and social and emotional wellbeing. It is important to note, however, that there is no standardised approach to The Zones implementation at Aspect schools and, anecdotally, there is wide variation across schools and classroom at Aspect.

Aims of this project

Despite the widespread adoption of The Zones, there is not, as yet, any clear evidence-base for the use of The Zones among Autistic students. Furthermore, The Zones is currently being implemented in an ad hoc manner at Aspect making a formal evaluation of outcomes (which had initially been requested) difficult at this stage. Additionally, in partnering with practitioners for our study (e.g. Aspect therapists and teachers) we were informed that some teachers believed that The Zones curriculum (as designed by Leah Kuypers) was not suitable for the diverse cohort of students within the Aspect school setting. Therefore, the aims of this project were to:

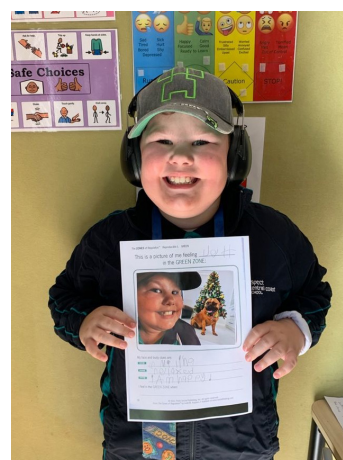
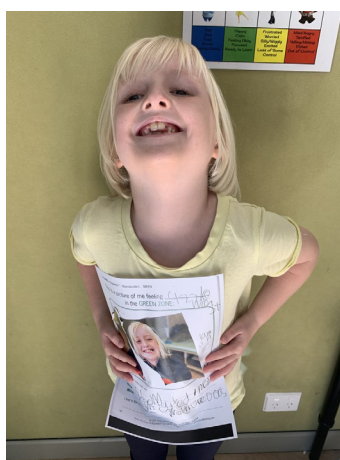
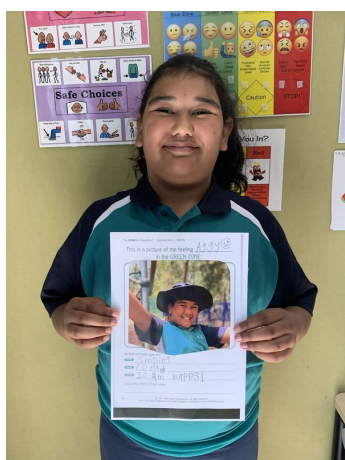
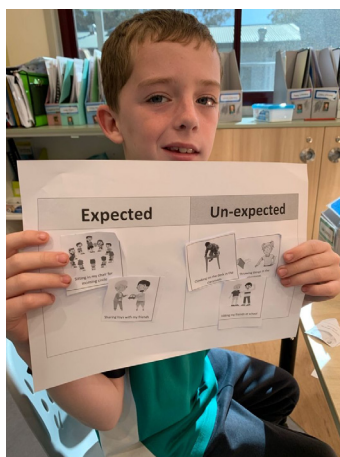
- ★ better understand how Zones is being used across Aspect classrooms (Preschool to Year 6), including any accommodations that were being made by teachers
- ★ to gather teacher perspectives as to the feasibility and usefulness of Zones with Aspect students.

About the teachers and classroom students

We recruited teachers through communication with principals and expressions of interest. After recruitment and The Zones training, we had 14 classrooms committed to implement The Zones across five Aspect schools (Treetop, Central Coast, Hunter, South Coast, and South East Sydney). Ten of the 14 classrooms were satellite classes, three were located in Main campuses, and one was a distance education class. Classes consisted of 4 to 10 students across grades K to 6. A total of 96 students (ages 5 to 12; 23% girls) were in the classrooms during Term 2. Most classrooms had at least one student diagnosed with an intellectual disability (27% in total). Five students were described as having limited verbal communication. It is important to note that not all students remained in the same classroom throughout the two terms as classroom groupings changed often, students left the class or school, or teachers offered alternative activities to students on particular days according to their judgement as to the suitability of The Zones content.

Ten classroom teachers continued teaching The Zones until the end of Term 3. Teachers of four chose to discontinue the Zones curriculum due to the following reasons:

- ★ student disengagement
- ★ increased student emotional reactivity
- ★ student challenging behaviours
- ★ logistical difficulties of pulling students from different classrooms (this applied to only one class where The Zones group was made up of students from different classrooms).



Data collection



What did we learn?

Is The Zones feasible?

Teachers answered 12 questions about how acceptable, appropriate, and feasible The Zones was for their students. Scores on each of the three scales ranged from 5 (low acceptability, feasibility, or appropriateness) to 20 (high acceptability, feasibility, or appropriateness). Teacher responses indicated high levels of acceptability ($M=17.08$, $SD=3.0$), feasibility ($M=16.58$, $SD=2.11$) and appropriateness ($M=16.00$ $SD=2.41$) suggesting that, overall, c

Would teachers recommend The Zones to other teachers?

According to the post survey:

- ★ 83.3% ($n = 10$) of the teachers would recommend the program

"It was effective but did need to be modified for my cohort."

- ★ 16.7% ($n = 2$) would not recommend it

"It is a great baseline program - while the teacher had to adjust worksheets and some resources the program and outline was strong."

"It really depends on your class and ability. Not an easy answer."

"It needs adjustments for each individual class and it is at times visually overwhelming or confusing for the students."

"I do not feel the comprehension level is appropriate for students with an ID who are Autistic. The 'full' Zones needs modifications, but it is better than doing it randomly and different across the board."

Was The Zones effective in improving emotion regulation and social skills for students on the autism spectrum?

Teachers were asked to rate (on a scale of 1 to 5 ranging from not effective at all to extremely effective) the effectiveness of The Zones in improving emotion regulation abilities and social skills.

92% of teachers (n=11) reported that The Zones was moderately to extremely effective in improving emotion regulation skills (Figure 1). 75% of teachers (n=9) reported that The Zones was moderately to extremely effective in improving social skills (Figure 2).

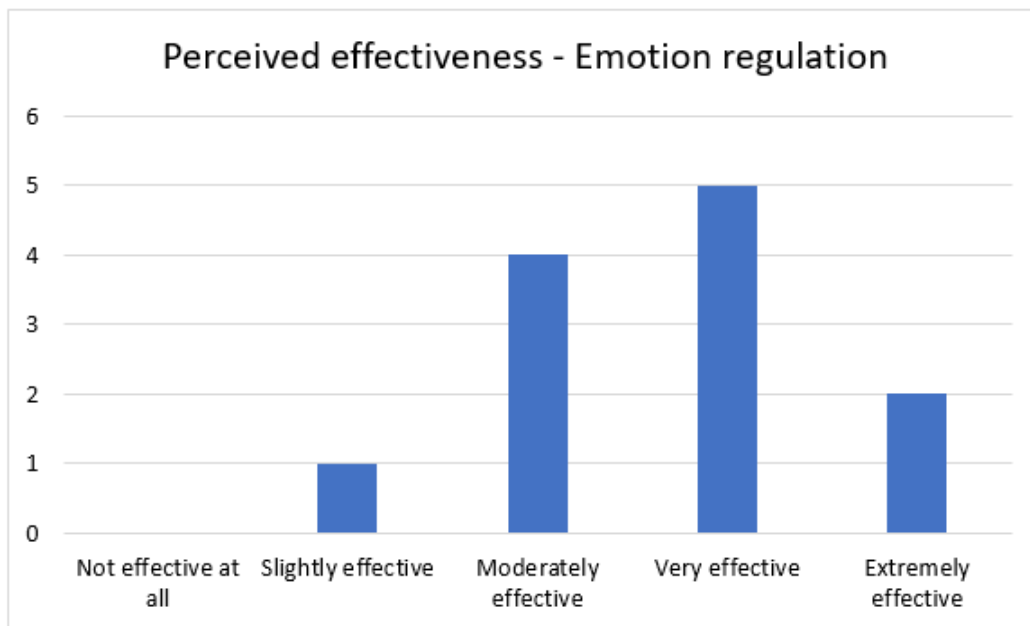


Figure 1

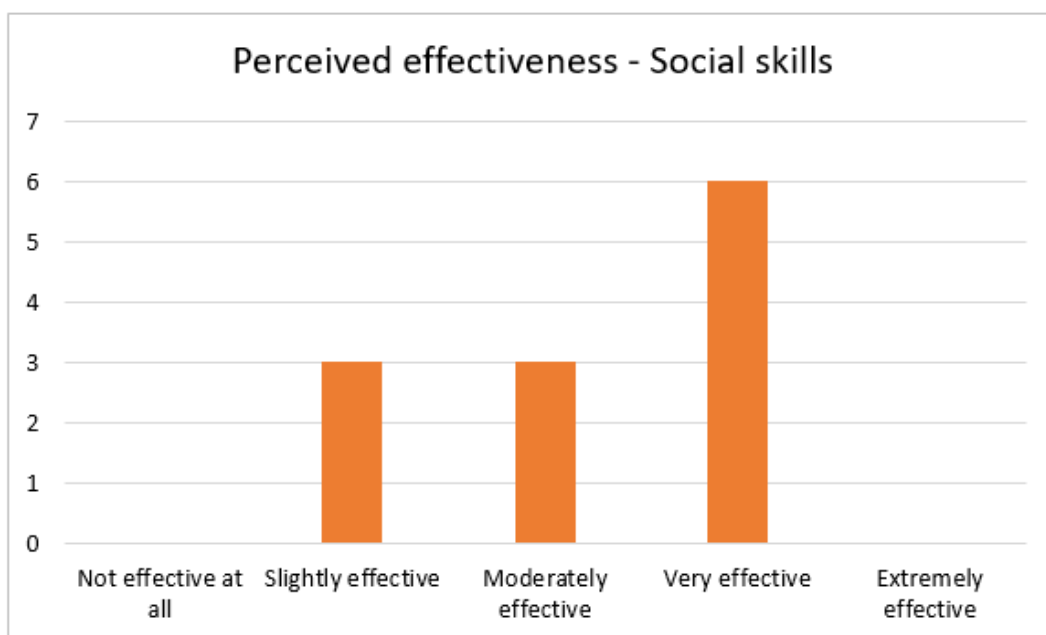


Figure 2

Were there any differences in student engagement across lessons or classes?

Teachers provided engagement data for each student in their classes on a weekly basis. This information was collected to determine whether student engagement varied across The Zones lessons (which varied in terms of sophistication of content) or classrooms (which varied in terms of student characteristics and abilities). No noticeable trends or patterns emerged across lessons or classrooms.

What, if any, modifications were made to The Zones curriculum?

All teachers, except for one, modified The Zones lessons in order to tailor the lessons for their students (ranging from 30% to 100% of lessons). The types of modifications fell into five categories:



Pace and groupings: Lessons were long and frequently needed to be broken up, repeated across multiple weeks, or changed to individual or small group lessons.



Worksheets and writing activities: Worksheets and written activities were visually overwhelming and required writing skills that were beyond many students' abilities.



Active engagement: Teachers changed reading, writing, or verbal activities to tactile, drama or movement activities to increase student engagement.



Relevancy: Needed to update the materials so that they were relevant to the students and highlighted student strengths and interests.



Visual supports and augmentative and alternative communication (AAC): Teachers created a diverse selection of visual supports to supplement the material.

Further details regarding these categories and examples of modifications are outlined in the accompanying [teacher guidelines](#).

What were teachers' views about The Zones?

Focus groups were conducted with teachers after they delivered The Zones to their classes for two terms, or 20 weeks. Two participants opted to be interviewed individually, due to a conflict in scheduling. A semi-structured interview guide was used and questions included, "How useful is The Zones of Regulation for improving children's social skills in your classroom?" and "Did you need to put any modifications/accommodations into place for your students?" The focus group sessions ran for 60 minutes and were recorded and then transcribed for data analysis.



Following qualitative analysis, we identified three themes that related to teacher perspectives of The Zones:

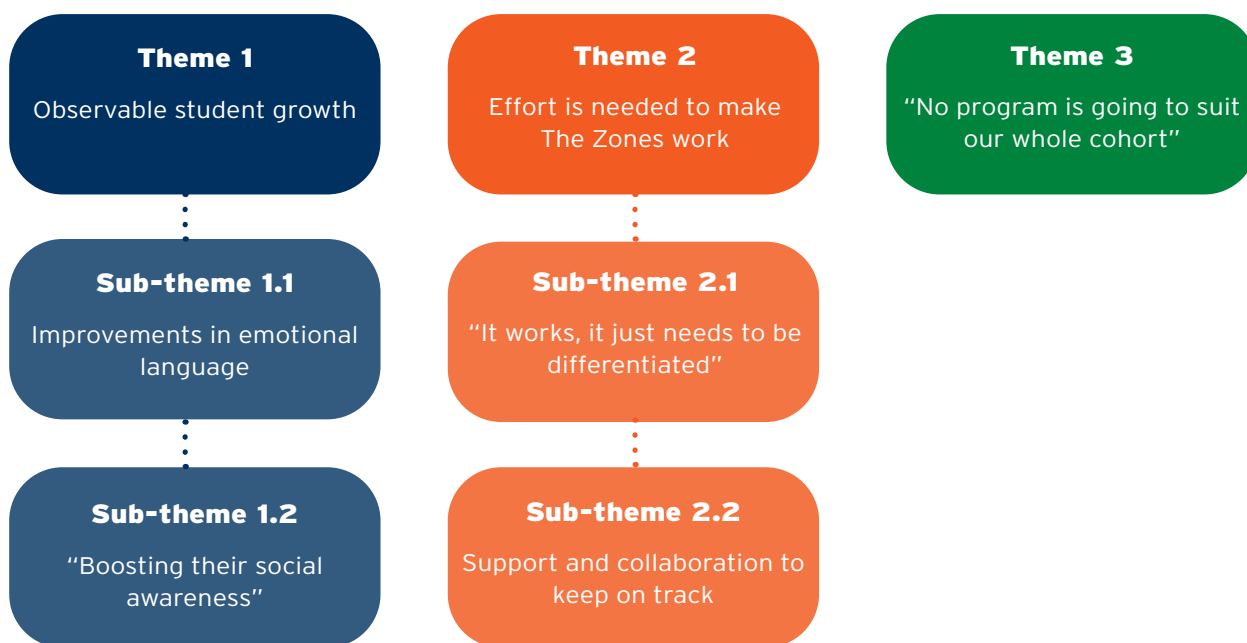


Figure 3: Teachers' experiences delivering The Zones to their classrooms across two terms: themes and sub-themes

Theme 1: Observable student growth

Teachers saw improvements in many of their students' emotional language over two terms:

Descriptions of language improvement ranged from students using *"more complex feelings, like overjoyed, overwhelmed"* (T9) to language that *"helps the kids be self-advocates"* for their own triggers and feelings (T9). Teachers talked about how The Zones language is now *"part of language that's used every day"* (T7).

These improvements were largely observed in students with reasonable language skills. Students who relied on augmentative and alternative communication (AAC) methods were observed to be *"very scripted ...they tell me what I want to hear rather than actually expressing how they feel"* (T10). Teachers reflected that students with alternative communication methods may need a different program or may need to learn The Zones at a different pace.

They also reported students demonstrated more social awareness:

One teacher explained, *"The boys in my class, they have, I guess, more social awareness and just understanding of how their behaviours would affect others and their fluctuations and emotions too"* (T8). The teachers described how students were now able to identify *"differences between one another and how we're all still very similar but everyone's different"* (T8). Students became more aware of the *"consequences of your actions and how other people have feelings as well"* (T7) including increased *"perspective taking"* (T9).

Theme 2: Effort is needed to make The Zones work

Although the general consensus was that there were positive outcomes for many students as a result of the Zones, teachers also reported that in order for The Zones to be effective, considerable effort was needed in terms of adaptation and most had needed support from colleagues.

Teachers described the importance of adaptations to make the program works, *"It works, it just needs to be differentiated"* (T4). Only one teacher delivered the program without adaptations; however, she

recognised she had a cohort of students that had high verbal and social skills. Teachers frequently praised the curriculum as a good *"baseline program template for a teacher. They can pick it up and have the aim for the lesson, the endpoint for the lesson"* (T6); however, they also spoke of the need to tailor the program for their particular students *"... but we teach kids with autism and we know that their special interests are important and how we deliver things are important"* (T6). Adaptations are described in more detail below.

Additionally, support and collaboration were required for The Zones to be effective:

The Zones manual was described by teachers as *"effective and easy-to-ready, but extremely time consuming"* (T9) and collaboration was required to reduce this time burden. One teacher said *"My two co-teachers, they're brilliant as well, but having that support made me feel more positive about delivering something new"* (T7) and also made it *"easier to think through how to modify and make things work for our diverse students"* (T8). Researchers checked in weekly with participants and one teacher noted that the weekly calls *"did hold you a bit accountable that we did have to make sure we got our lessons in, it did make a difference"* (T1).

Theme 3: "No program is going to suit our whole cohort"

Teachers acknowledged that *"No program is going to suit our whole cohort"* (T6) and described a number of adverse or challenging student responses when they reflected on teaching The Zones to their students across the two months. One teacher spoke of how some students *"found it quite boring and quite disengaged"* (T10). Some students became *"quite escalated"* by The Zones (T9). The worksheets and *"paperwork side"* (T1) was another challenging trigger for students as *"anything that involved them writing or doing any paperwork just went straight downhill"* (T1). Also, the assumed rigidity with the colours linked to the emotions (a core component to The Zones program) acted as a trigger to students, as many teachers explained that students felt anxiety about each zone, such as *"the red zone, that means it's a negative thing, so you must be doing something wrong"* (T14).

What are teachers' recommendations for future iterations of implementation of The Zones at Aspect?

- ★ The Zones should not be implemented without modifications.
- ★ Minimise writing tasks - make sure to modify to make these activities more engaging through role play, visual activities, drama etc.
- ★ Move through The Zones slowly: the program should be run across a school year.
- ★ More resources are needed, including a resource box for each lesson and a bank of videos or books that could be used for each lesson.
- ★ Further assessment by teachers and/or research should be done to understand the appropriateness of The Zones for AAC users. In our study, teachers recommended thinking critically about how students that use AAC (e.g., Proloquo) may be better able to access the program. What does The Zones look like for a student with AAC and how do teachers reduce the time required to load and prepare the vocabulary into their devices?

"I think if you were going to do it, you would need ... I feel like myself would probably need that explicit PD before we start so we are not spending so much time teaching ourselves and that way we can be more confident when we're actually teaching the kids"

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- ★ Teachers suggested a supportive professional development program for The Zones that encouraged professional learning communities, shared resources, and a rundown of the lessons within the program. The professional development could be spread out across the year, where the first group of lessons are covered in Term 1 and 2, and the second group of lessons are covered in Term 3 and 4. This would ensure that there was buy-in across all staff, shared knowledge of the program and the benefits, and agreement on how it was delivered.
- ★ Teachers recommended separating students into different groups and abilities across schools so lessons could be tailored to a specific audience and cohort. Teachers recommended keeping these groups small. Sharing resources in a clear and easy manner would also reduce the time burden.
- ★ In future iterations, teachers recommend considering how to intentionally include family input. For example, staff could send The Zones charts home or include it at the IP meeting. Parents could receive a letter about the program and what was being taught each term. Most importantly, parents could be informed about the modifications that were keeping the program individualised and student-led.
- ★ All teachers should have their own The Zones manual and access to shared resources to reduce challenges accessing the curriculum.
- ★ Finally, all teachers endorsed using the full Zones program, with modifications and suggested recommendations rather than an ad hoc manner as has occurred previously. However, depending on previous exposure to The Zones, academic abilities, and age, teachers recommended beginning with the first five lessons, with repetition as needed before progressing on to subsequent lessons.

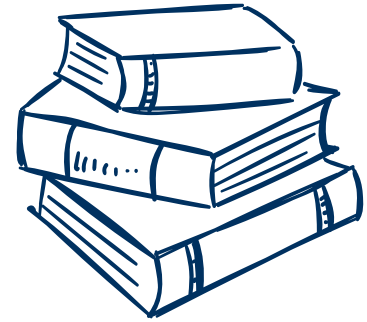
“The ‘full’ zones needs modifications, but is better than doing it randomly and different across the board.”(T9)

Key takeaways

- ★ The majority of teachers reported that The Zones is an acceptable and feasible program with the caveat that considerable modifications need to be made in order for Aspect students to engage with the content and that some students, particularly those with an intellectual disability or students who use AAC, may not be suitable candidates, even with modifications.
- ★ For those students who were able to engage with The Zones, teachers had observed improvements in social skills and emotion regulation which they attributed to their participation. It is important to note that this is based on teacher perception only and no objective measures were obtained in the course of this study.
- ★ Teachers require support and resources in order to effectively implement The Zones including opportunities for supervision and collaboration and ready access to resources such as training, visual supports and modified lesson plans

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