



The University of Michigan
Central Student Government

Intended Spaces on Campus for Students with Disabilities

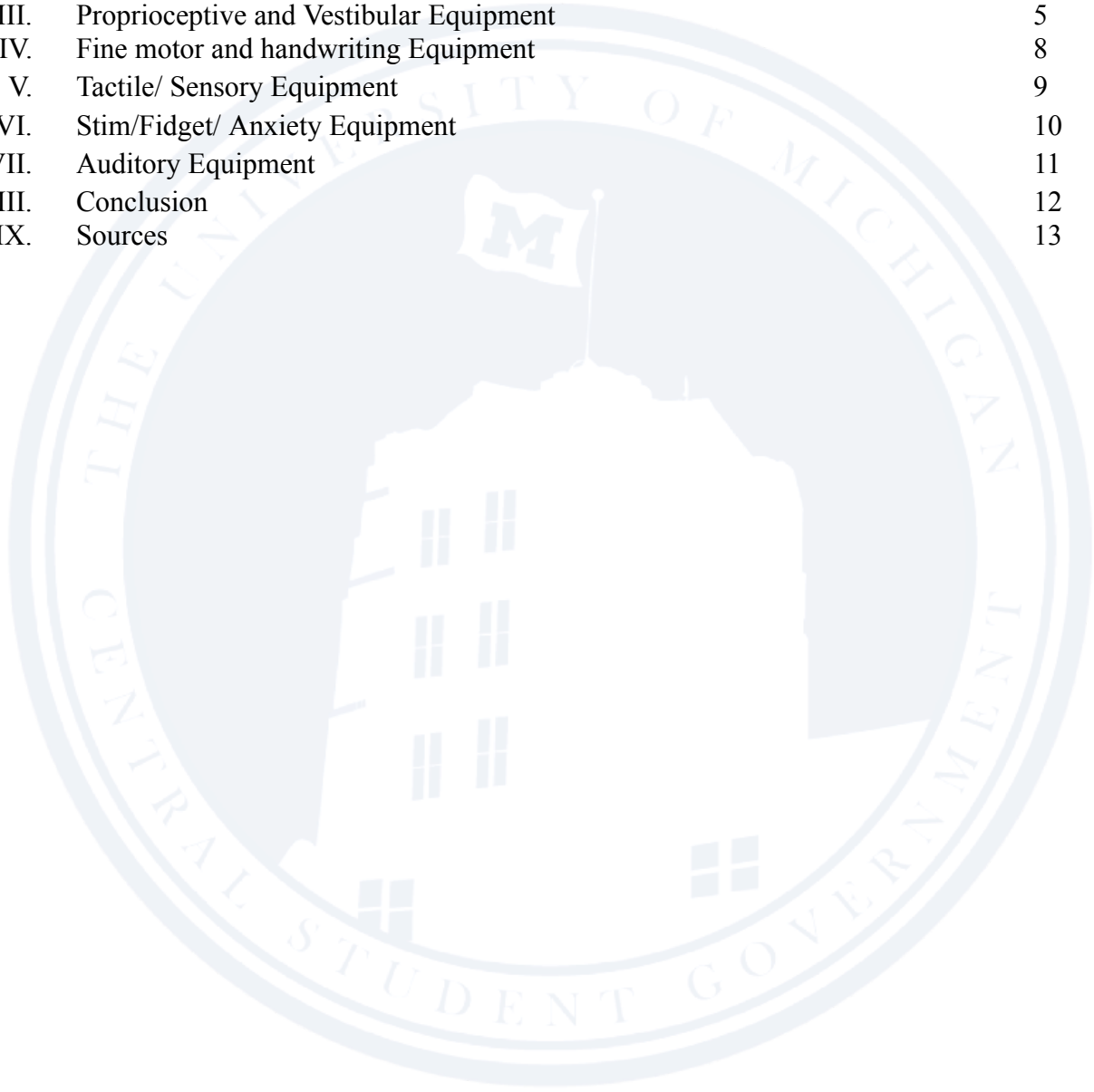
Reflection Room Equipment Report

Zimmerman-Hillman Administration

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Introduction

What Are Some Challenges for Neurodivergent/ Autistic Students?

Sensory processing and preferences can vary between autistic people. Channeling sensory information from the stimulus to a response, physically or emotionally, keeps input and output systems stable. For some autistic people, especially children and young people, sensory input filtering is affected, and increased sensory input can become “overwhelming, uncomfortable, and/or painful.” [1] These possible differences in sensory processing from neurotypical students (some people may experience sensory overload, while others may find relief from sensory stimulation) are called “sensory processing differences.” [1] Because autism and neurodivergence is not black and white, but rather a spectrum, it is important to cater to different sensory needs so that all students on the spectrum feel supported and safe while pursuing their academic and extracurricular goals at the University of Michigan.

What is Occupational Therapy and Its Use?

Many autistic people utilize occupational therapy to help organize sensory input and thereby better participate in the activities that they need to. Additionally, occupational therapy often focuses not only on sensory needs, but on motor, emotional, cognitive, developmental, social, and communicative needs as well. [2]

Occupational therapy equipment, which can range from sensory friendly seating, handwriting accommodations, fidget or stimulation toys, balance products, weighted products, transition tools, oral sensory tools, and noise-canceling headphones, are mostly sensory or motor based and can help students with autism (of all ages) perform better in academic settings. [3]

The Importance of the Reflection Room Project and the Equipment We Purchase

For autistic students in college, there are thousands of new stimuli that can interact with them in different ways based on the individual’s needs. Having a private room/ sensory room in academic settings, assistive technology, and occupational therapy equipment, will most likely have an immense impact on the continuity and quality of neurodivergent students’ lives [4] at the University of Michigan.

Methodology

The majority of occupational therapy equipment is focused on either sensory and motor stimulation and aid. Within these categories, here is how I am narrowing down the ideal products to equip our Reflection Rooms with:

- I. Narrow down the categories of OT equipment.
 - A. Use reliable sources to finalize each category of sensory/ motor needs covered. [5-9]
 1. **Proprioceptive (body awareness) and Vestibular (balance, equilibrium, motion)**
 2. **Fine motor and handwriting**
 3. **Tactile/ sensory integration**
 4. **Stim/fidget/ anxiety aids**
 5. **Auditory**
- II. Within each category, find specific clinical grade/ high quality equipment and rate the following factors out of 10 to calculate a weighted average score for each equipment.
 - A. Factors for Weighted Score (Refer to Index for calculations)
 1. **Quality**
 - a) **Ranked out of 5 based on available reviews and subjective evaluation of quality**
 2. **Cost**
 - a) **Under \$50: 5**
 - b) **\$50- \$75: 4.5**
 - c) **\$75- \$100: 4**
 - d) **\$100-\$200: 3**
 - e) **\$200-\$300: 2**
 - f) **\$300-\$400: 1**
 - g) **Above \$400: 0**
 3. **Audience**
 - a) **Ranked out of 5 based on appropriateness to college student population of neurodivergent students and ADHD/autism applicability**
 4. **Clinician support**
 - a) **Because clinicians do not review specific brands/ variations of products, I am ranking the *type* of product out of 5 based on clinician/ research recommendation.**
 - (1) **Significant evidence of clinician support/ research support: 5**

**(2) Moderate evidence of clinician support/ research
evidence: 4**

**(3) Minimal evidence of clinician support/ research
evidence: 3**

**(4) Nonexistent evidence of clinician support/ research
evidence: 2**

B. There will be at least two specific products within each category, each scored, so that you have a few options per category that I recommend based on the research done.



Vestibular and Proprioceptive

I. Balance Boards

A. Option #1

1. Weighted Score (out of 25) : 18.25
2. Notes:
 - a) High price point: \$419
 - b) Large enough for students to sit on comfortably and use as a rocker board. Can also be used as a balance board standing up with a wall as support.
 - c) Space constraint in Reflection Rooms, need to consider students who pray there
 - d) Not likely to be stolen.

B. Option #2

1. Weighted Score (out of 25) : 20.375
2. Notes:
 - a) Low price point: \$99 for 6 boards of varying colors
 - b) Quality appears to be “playground” quality: it will do the job but definitely could be better.
 - c) Portable and small, likely to be stolen.
 - d) Smaller, will leave more space for the rest of the reflection room. Can also store it away if needed for security.

C. Option #3

1. Weighted Score (out of 25): 24
2. Notes:
 - a) Middle ground price point: \$189
 - b) Very good quality
 - c) Designed for people to use while working or studying, but serves the same purpose for neurodivergent students
 - d) Students can use this board while working
 - e) The design is sleek and sturdy.
 - f) May be stolen
 - g) Portable and small

II. Exercise Balls

A. Option #1

1. Weighted Score (out of 25): 23
2. Notes:
 - a) \$90.99
 - b) Exercise ball with wheelable chair and pump
 - c) Great option for our students to work or study in while moving around and balancing

Exercise Ball	https://autismcommunitystore.com/collections/therapy-balls/products/gaiam-classic-balance-ball-chair						
	Weightage	Score	Weighted				
Quality	30	4	24				
Cost	10	4	8				
Audience	15	5	15				
Clinician	45	5	45				
	100	4.5	23				
Weighted Blanket							
	https://specialneedstoys.com/usa/proprioception/weighted-blanket-and-minky-dot-cover.html			https://specialneedstoys.com/usa/tuf-stuf-vinyl-weighted-blanket2.html			
	Weightage	Score	Weighted	Score	Weighted		
Quality	30	4	24	4	24		
Cost	10	4	8	3	6		
Audience	15	5	15	5	15		
Clinician	45	5	45	5	45		
	100	4.5	23	4.25	22.5		

Fine Motor and Handwriting

I. Fine motor and handwriting toys

A. Option #1

1. Weighted Score (out of 25): 22
2. Notes:
 - a) \$99 for 6 items, good value
 - b) Has a tangle in it- CAPS also has tangles, and they give them out for free: maybe we can ask CAPS to provide the tangles.

B. Option #2

1. Weighted Score (out of 25): 19.25
2. Notes:
 - a) \$5 for one grip: very overpriced, generally these don't last very long: they will probably be stolen very quickly too.
 - b) Practical and well suited for college students
 - c) I'm sure there are cheaper alternatives in bulk.

C. Option 3

1. Weighted Score (out of 25): 22.25
2. Notes:
 - a) \$174.99 for six tubs of 1 pound each varying resistance Theraputty
 - b) Clinically supported to help with motor skills and fine motor muscles
 - c) Less easily stolen if we get the 1 pound tubs. People would still steal it though, because it doesn't dry out.
 - d) This can help with all students, it's like a stress ball but more effective.

	https://specialneedstoys.com/usa/small-grab-n-go-motor-kit.html			https://specialneedstoy.com/usa/the-bumpy-grip.html		https://nationalautismresources.com/theraputty/	
	Weightage	Score	Weighted	Score	Weighted	Score	Weighted
Quality	30	5	30	5	30	5	30
Cost	10	5	10	4	8	4	8
Audience	15	4	12	4	12	5	15
Clinician	45	4	36	3	27	4	36
	100	4.5	22	4	19.25	4.5	22.25

Tactile/Sensory Integration

I. Tactile Toys

A. Option 1

1. Weighted Score (out of 25): 17.5
2. Notes:
 - a) \$9.99
 - b) I thought it was a fun addition because of AA squirrels and it is also a sensory fidget toy.
 - c) This specific toy is obviously not clinically supported but it's helpful, and a squirrel!
 - d) Will likely get stolen

B. Option 2

1. Weighted Score (out of 25): 19
2. Notes:
 - a) \$6.99 per DNA Ball
 - b) Good tactile fidget toy
 - c) Easily stolen
 - d) Useful for students to use while studying in the reflection room

C. Option 3

1. Weighted Score (out of 25): 20.5
2. Notes:
 - a) \$14.49 per fiber optic lamp
 - b) Tactile and visual sensory aid
 - c) Calming to students with ASD/ ADHD
 - (1) And to all students
 - d) Less likely to get stolen

	https://www.amazon.com/dp/B08ZK83QHY?tag=abilitytb-20&linkCode=ogi&th=1&psc=1			https://autismcommunitystore.com/collections/dna-ball		https://autismcommunitystore.com/collections/sensory/products/rain-bow-crystal-fiber-optic-lamp	
	Weightage	Score	Weighted	Score	Weighted	Score	Weighted
Quality	30	3	18	4	24	5	30
Cost	10	5	10	5	10	5	10
Audience	15	5	15	5	15	5	15
Clinician	45	3	27	3	27	3	27
	100	4	17.5	4.25	19	4.5	20.5

Stim/Fidget/Anxiety

I. Stim/ Fidget

A. Option 1

1. Weighted Score (out of 25): 22
2. Notes:
 - a) \$12.60
 - b) Good quality, made by a company that used to make musical equipment, so they know the right kind of sound it should make to be soothing to those with sensory processing issues.
 - c) Likely to get stolen still

B. Option 2

1. Weighted Score (out of 25): 21.25
2. Notes:
 - a) \$11.90 for three toys: infinity cube, fidget pad cube, and flippy chain
 - b) Covers different sensations and stimming needs
 - c) Very easily stolen

C. Option 3

1. Weighted Score (out of 25): 20.5
2. Notes:
 - a) \$5.95 for 4 pop fidget toys
 - b) Good price, good quality
 - c) Very, very likely to be stolen
 - d) Common stim toy

	#1			#2			#3	
	Weightage	Score	Weighted	Score	Weighted	Score	Weighted	
Quality	30	5	30	4	24	5	30	
Cost	10	5	10	5	10	5	10	
Audience	15	4	12	5	15	5	15	
Clinician	45	4	36	4	36	3	27	
	100	4.5	22	4.5	21.25	4.5	20.5	

Auditory

I. Auditory

A. Option 1

1. Weighted Score (out of 25): 25
2. Notes:
 - a) \$50.19 for extremely high quality, bluetooth connectable noise canceling headphones for students
 - b) I think this is a necessity for the reflection rooms.
 - c) The majority of people with ASD and sensory issues require these, and the TAC provides them during testing as well.

	https://www.amazon.com/dp/B0723CYHPZ?tag=abilitytb-20&linkCode=ogi&th=1&psc=1			#2	#3		
	Weightage	Score	Weighted	Score	Weighted	Score	Weighted
Quality	30	5	30		0		0
Cost	10	5	10		0		0
Audience	15	5	15		0		0
Clinician	45	5	45		0		0
	100	5	25	#DIV/0!	0	#DIV/0!	0

Conclusion

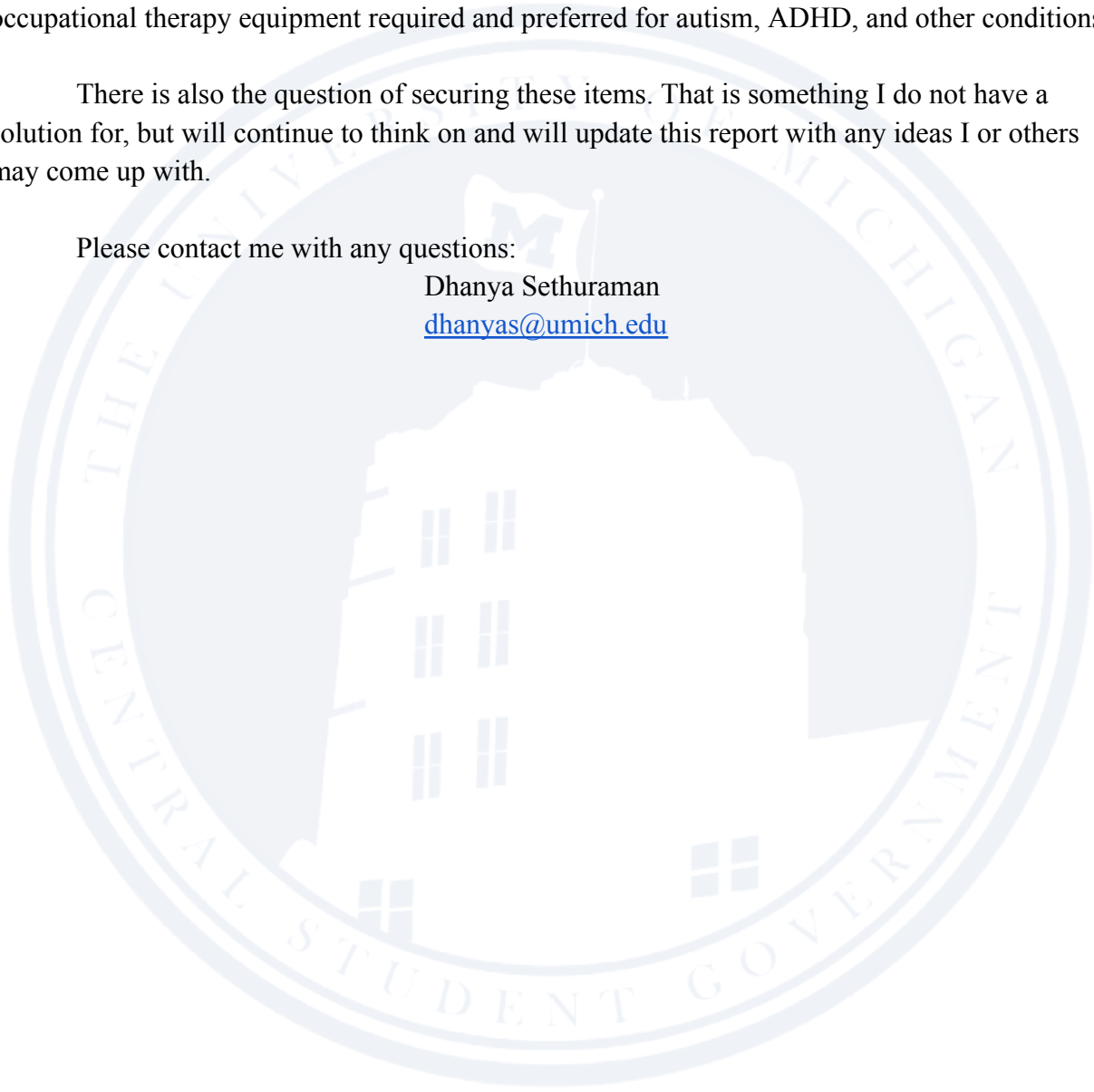
I believe all categories of these equipment should be included in the reflection rooms. In addition, there is the consideration to make of making at least part of the reflection room sensorily safe for neurodivergent students. If this is an idea that is feasible given the multiple uses for reflection rooms, I would be happy to research how to set up the ideal sensory room. However, I believe that if all of these products are supplied, it will cover a good majority of occupational therapy equipment required and preferred for autism, ADHD, and other conditions.

There is also the question of securing these items. That is something I do not have a solution for, but will continue to think on and will update this report with any ideas I or others may come up with.

Please contact me with any questions:

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Sources

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