ADHD in College Students

Bailey Flaherty

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ADHD in College Students

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2022-2023
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People with ADHD are more likely to struggle in college when their living space does not adequately meet their specific needs. Redesigning college living facilities specifically for students with ADHD will improve their college education and overall college experience by utilizing design to combat common struggles faced by individuals with ADHD.
College can be an exciting time in life however for many the experience can be tarnished by lack luster living conditions that amplify the negative effects on mental disorders. College is a demanding environment; for students with ADHD (Attention deficit hyper activity disorder), it is even more challenging. For people with this neuro-development disorder, executive brain functions may override healthy or effective processes that would help people to perceive time, focus, manage multiple tasks, and organize students are expected to manage school, work, a social life, chores, and more all while living alone for the first time in most of their lives. Many college students move out of their parents’ home and live at school. While attempting to navigate the high stress environment of college, students with ADHD are put under even more stress trying to make sure their ADHD does not interfere with their success. Living at college is a challenge in itself, but for students living with ADHD it is even more difficult. In order to have an improved quality of education and overall college experience they need to have a home that aids their specific needs. Low quality housing is also connected with poor mental health development. The quality of college housing can be improved to support students’ mental wellbeing. As for students with ADHD we can make specific changes to their living environment in order to improve the issues they face. Focus on organization, eliminating external stimuli by conscientious lighting and acoustic design choices, and manufacturing an environment where these students can focus. These changes will help these student flourish in their education and personal life.
When you hear someone say ADHD do you think of?

Most people will say they think of an antsy child in a classroom who can not sit still maybe tapping their foot, not paying attention, or clicking a pen.

This stereotype can not even being to scratch the surface of what ADHD really is. In this packet you will get a better understanding ADHD.
Findings about ADHD

ADHD is a neuro-development disorder which affects the brains executive function and neuro-transmitters. Neuro-transmitter such as dopamine and norepinephrine are affected by ADHD.¹

• Inattention means a person may have difficulty staying on task, sustaining focus, and staying organized, and these problems are not due to defiance or lack of comprehension.²

• Hyperactivity means a person may seem to move about constantly, including in situations when it is not appropriate, or excessively fidgets, taps, or talks. In adults, hyperactivity may mean extreme restlessness or talking too much.”³

• Impulsivity means a person may act without thinking or have difficulty with self-control. Impulsivity could also include a desire for immediate rewards or the inability to delay gratification. An impulsive person may interrupt others or make important decisions without considering long-term consequences.”³

Someone diagnosed with ADHD falls into one of three categories: impulsive / hyperactivity type, inattentive / distracted type, or a combination of the both.

What is executive function?
Executive function can be described as high level cognitive skills needed to control other cognitive and behavioral skills.²

What does this really mean?
To put it simple executive function is like the brains management system.³ For people with ADHD managing the everyday life skills we all use becomes a matter of urgency and emergency. People with ADHD can often find themselves with a overload of tasks and have little sense of how to start them. This is what often leads to the idea of creating an “emergency” which forces prioritization.⁴

One example of this is waiting till the last minute to start a assignment forcing them to push this task to the forefront of the to-do list and getting it started.

“People with ADHD experience an ongoing pattern of the following types of symptoms:

• Impulsivity means a person may act without thinking or have difficulty with self-control. Impulsivity could also include a desire for immediate rewards or the inability to delay gratification. An impulsive person may interrupt others or make important decisions without considering long-term consequences.”³

• Inattention means a person may have difficulty staying on task, sustaining focus, and staying organized, and these problems are not due to defiance or lack of comprehension.²

• Hyperactivity means a person may seem to move about constantly, including in situations when it is not appropriate, or excessively fidgets, taps, or talks. In adults, hyperactivity may mean extreme restlessness or talking too much.”³

Figure 1: Brain Centers Diagram

1 The Impact of ADHD on College Students Through Adulthood, YouTube / The Impact of ADHD on College Students Through Adulthood (YouTube, 2014), https://www.youtube.com/watch?v=m2KrXcGg49c&t=2020s.
4 The Impact of ADHD on College Students Through Adulthood, YouTube / The Impact of ADHD on College Students Through Adulthood (YouTube, 2014), https://www.youtube.com/watch?v=m2KrXcGg49c&t=2020s.
Having ADHD makes prioritization difficult. ADHD creates a need for emergency to force prioritization.

“Having ADHD is like the United States having one single airport with a horrible runway. There are tons of planes swirling above waiting to land which are like all the obligations someone with ADHD has to do. These planes are all trying to land but if one plane had a bomb on it obviously would get to land first. This is the same way someone with ADHD prioritizes their obligations if there is a strict due date or anything that is like a “bomb” it forces the task to the front of the line.”

Figure 2: ADHD Plane Priority Analogy

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6 The Impact of ADHD on College Students Through Adulthood, YouTube / The Impact of ADHD on College Students Through Adulthood (YouTube, 2014), https://www.youtube.com/watch?v=m2KxYcGg+9c&t=2020s.
Stress induced memory loss

Task prioritization and initiative

Crippled stress resulting in difficulty

Persistant feeling of sadness

Memory loss and confusion

Decision making and lack of attention

Inattention and frustration

Task prioritization and initiative

Cognitive skills & executive function.

Learning & emotion

Memory

Both intensify symptoms of the other resulting in a continuous cycle of stress and other symptoms. Paralysis can strike when it comes to having anxiety about a task paired with the lack of motivation to initiation a task stemming from ADHD.

Both lack of dopamine. The feeling of being out casted with ADHD can amplify depression. ADHD often negatively impacts one’s self-worth which can trigger depression. Both can also lead to higher rates of substance abuse and suicide.

Anxiety

• Increased heart rate
• Weak or tired feelings
• Issues concentrating on anything but in the moment stress
• Fatigue and exhaustion
• Wanting to avoid any activity that triggers anxiety.

ADHD

• Impulsiveness
• Difficulty with prioritization
• Disorganization
• Mood swings
• Struggles coping with stress
• Hot temper
• Struggles focusing on tasks.

Depression

• Tired/ lack of energy
• Feeling sad, empty, hopeless
• Sleeping too much or not enough
• Trouble thinking or concentrating
• Loss of interest in thing that once made you happy
• Angry outburst or irritability.

Findings about ADHD

Findings about ADHD

“In an Icelandic study of 369 university students (aged 18–53 years), a negative relationship was found between global life satisfaction, ADHD symptoms and associated problems, such as emotional and social functioning. In addition, two small US studies both found that having ADHD was associated with lower quality of life and productivity in students.”1

ADHD is associated with dopamine deficiency. Dopamine is know as the feel good or happy chemical in the brain because when its released it emits positive feelings in the body.2

While ADHD is associated with dopamine deficiency it is also associated with other mental health disorders. This strongly correlates to the dopamine deficiency we see in people with ADHD because many mental health issues stem from a lack of dopamine too.3

“Many people have “ADHD plus”—ADHD with a co-occurring condition that is managed along with the ADHD symptoms. Among adults, about 47 percent also have depression and 53 percent have anxiety. About 14 percent of children who have ADHD have co-occurring depression, and 30 percent also have anxiety. Other frequently diagnosed conditions are mood disorders, tics, and sleep disorders. Often learning disabilities, while not mental health conditions, also frequently occur with ADHD.”4

Although not associated with a dopamine deficiency sensory processing disorders are also common among those with ADHD. ADHD can make amplify sensory overload symptoms such as:

**Lack of self-regulation:** This is due to the lack of ability to control emotions and reactions which can result in an outburst for someone with ADHD.

**Trouble with transitions:** People with ADHD often struggle with flexible thinking this can fixation on issues making it hard to bring focus elsewhere.

**Lack of awareness:** ADHD can cause people to be distracted, disorganized, and rushed so when an unsavory sensation comes along it and they can not remedy it fast it can result in sensory overload. 5

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Findings about ADHD

ADHD

Education
- Troubles focusing
- Fidgeting
- Higher dropout rates
- Poor Prioritization
- Missed deadlines
- Bad Grades
- Socially outcasted
- Trouble maintaining relations
- Talks out of turn
- Failure to follow through on plans

Behavior
- Considered lazy
- Hyperactive and inattentive
- Lack of emotional control
- Angry outburst
- Lack of Organization
- Distracted
- Lacks notice of healthy habits
- Forgets to eat
- Doesn't shower
- Substance abuse
- Higher rates of suicide

Social
- Extreme frustration
- Social
- Sensory overload in public
- Lack of planning
- Fear of being over stimulated
- Anxiety

Life skills
- Depression
- Messy home
- Forgets to eat
- Lacks notice of healthy habits
- Doesn't shower
- Substance abuse
- Higher rates of suicide

Dopamine deficiency
- Messy home
- Extreme frustration
- Fidgeting
- Considered lazy
- Hyperactive and inattentive
- Lack of emotional control
- Angry outburst
- Lack of Organization
- Distracted
- Lacks notice of healthy habits
- Forgets to eat
- Doesn't shower
- Substance abuse
- Higher rates of suicide

Figure 4: ADHD mind map
Adults with ADHD tend to have difficulty with socialization and relationships. "Some adults with ADHD may have difficulty in maintaining relationships with the people around them. They may experience irritability, inattention, impulsive talking and forgetfulness which can contribute to misunderstandings in social interactions." Impairments in partner relationships and social functioning have been reported to be associated with adult ADHD.

Dopamine deficiency is associated with not only ADHD but also anxiety, depression, and other mental health disorders. This is a dangerous condition because lack of dopamine makes people chase it which often leads to drug and substance abuse issues. People with ADHD are 2-3 times more likely to have substance abuse issues. This also causes extreme lows when the dopamine high from drugs wears off it can lead to severe depression and even suicide. "The study found that undergraduate students with ADHD had more than double the rate of suicidal ideation (44.8% vs. 21.7%), three times the rate of suicide plans (26.6% vs. 9.8%), and more than double the rate of suicide attempts (13.4% vs. 5.5%) and NSSI (23.4% vs. 9.6%) compared to students without ADHD." 2

Social / Relationships

Adults with ADHD tend to have difficulty with socialization and relationships. "Some adults with ADHD may have difficulty in maintaining relationships with the people around them. They may experience irritability, inattention, impulsive talking and forgetfulness which can contribute to misunderstandings in social interactions. Impairments in partner relationships and social functioning have been reported to be associated with adult ADHD." 4
Findings about ADHD

Although many people live in dorms each person experiences the space differently and has their own routine. A student with ADHD will have a much different routine than those who do not have ADHD. The dorm room also has to accommodate for an array of different activities. Students eat, sleep, work, relax, hang out, and more all in this small living space. By reviewing the routines of these students, we can begin to establish how the space functions for these individuals.
Findings about ADHD

Every person with ADHD experiences it differently establishing the struggles that come with ADHD can help to form solutions to enhance life with ADHD.

Living with ADHD

1. Following a routine -
   ADHD makes it hard to not only start tasks throughout the day but also to stay on task once going. By finding a routine and creating structure in your life it helps to make your run more smoothly and you will likely be more productive.

2. Create visual prompts -
   ADHD tends to come with a out of sight out of mind mentality. A way to help remind people of things they need to do throughout the day or just keep track of your possessions is by creating visual prompts as little reminders throughout your home.

3. De-clutter before starting tasks -
   People with ADHD can often find themselves more easily distracted than others. By creating almost, a “distraction free” zone by cleaning your space before sitting down to work it will help with staying on task and most likely result in higher productivity.

4. Find your sensory satisfaction level -
   ADHD changes the way one processes sensory information. This can lead to being extremely over stimulated or under stimulated. By creating an environment where the external stimulus is comfortable it will help to create a sense of peace for those with ADHD. This can be done through sound, touch, or movement.

Reasearch conclusions

1. Students with ADHD are more likely to struggle in a college environment.

2. ADHD affects people’s ability to focus, time manage, and stay organized.

3. Having a quality living environment can improve ADHD.

4. By utilizing the tactics for “living with ADHD” a better living environment can be designed for students with ADHD.

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Finding support

Interview 1: Jill Liapis (Current job title: Director of curriculum and instruction, Education: Bachelors of science in early childhood education, Masters in reading, Masters in administration, Superintendent license.)

Jill works in many different schools alongside of educators, principles, and other staff to help implement proper instructional practices within each school. Over the years she has worked with a large amount of neurodivergent students many of them having ADHD. Jill's experience is schools gives insight to how to set up working spaces for students with ADHD.

What are common struggles students with face that you see?
Over the years working in many different schools the biggest struggle for students is lack of executive function skills (controlling impulses, abstaining from distractions, slow processing), spatial awareness (not being conscientious of what is going on around them), and issues attending to instruction.

What have schools implemented to help these students with the struggles they are facing?
The schools I have worked in focus on a few different things for students with ADHD. Flexible seating is great for students who struggle with sitting still or fidgeting. Many classrooms have implemented some sensory experience to help calm students aid their focus. Some of the sensory experiences I have seen include fish tanks, bubble bottles/towers, and calming water features.

Figure 6: Bubble tower
Figure 7: Sensory room
Finding support

Interview 2: Jade Heiler (interior designer who has ADHD)

Jade works as an interior designer with ADHD which gives her insight as to what design aspects can be improved to help people with ADHD live more comfortably.

What are some struggles you face as someone with ADHD?
One of the biggest issues I tend to face is distractions when I am working. People around me making noise and over stimulation can make it difficult to keep on task. I also have a difficult time with organization. When it comes to organization my stuff often ends up piled up in different spots in my house so having organization built in is really helpful along with having a system as to where I put things and when I clean.

What are some key elements of design that should be focused on when designing for people with ADHD?
Acoustics are a really important aspect to pay attention to when designing a space for someone with ADHD. When I am working and can hear noises coming from other people around me it makes it really hard to focus so making sure that a workspace is really acoustically sealed off from outside disruptions. While a quiet workspace is important it is also important to have different options as where to get work done. Having different workspaces to flow between when feeling antsy and depending on the type of work one is doing can help. This can include flexible seating options throughout the space. Organization is also something those of us with ADHD have a really hard time with creating storage that not only helps keep us organized but also is open and visible is something that can help keep track of our items.
Sensory room

What is a sensory room?
A sensory room is a space designed to encompass a range of different stimulations and engage people's senses.¹

What is the benefit?
Neurodivergent individuals often have a hard time relaxing and usually are more anxious than the average person. Sensory rooms eliminate a lot of external stimulus allowing these individuals to find some peace.²

Figure 8: Seattle Tacoma Airport Sensory room

Figure 9: Wool sensory pillows

Key Features:
- Seated bench area
- Orange Squeeze Chair
- Rocking Chair
- Dimmable lighting available
- Shoe and luggage storage
- Starry night ceiling
- Wool rock pillows to touch and interact with
- Acoustic Panels

Key benefits:
- Improved focus
- Promote socialization
- De-stress
- Develop communication skills
- Improved balance, movement, and spatial orientation
- Enhanced learning through play
- Sensory stimulation

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Programming
ADHD is a complex development disorder as discussed above it often is accompanied by other illnesses or disorders. This makes ADHD more difficult to manage because it is not a “one size fits all” type of solution. Each individual with ADHD experiences it uniquely so focusing on the most common and serious struggles is the first step to improving them. ADHD most commonly is talked about in the school setting because this is the place these individuals typically struggle the most, but ADHD does not just disappear outside of the classroom walls. ADHD affects people’s ability to stick to routines, focus on tasks, have organized homes and life styles, sleep, do school and work, and so much more. Which leads to the question of why are we not creating solutions for ADHD in more places?
In design we have codes and regulations such as the Americans with Disabilities Act. This Act requires buildings to accommodate to those with disabilities so they can navigate the same spaces able bodied individuals. Although the Americans with Disabilities Act helps to ensure we accommodate a large group of people with disabilities it does lack in some areas including ADHD. Although ADA does classify ADHD as a disability it does not provide specific design regulations for this disability. One of the most challenging places for individuals with ADHD can be school which is why the focus of this project is on college students with ADHD and their living environment. College is the first time many individuals with ADHD move away from home and break from their typical routine. Designing a dorm space specifically for students with ADHD will help them to combat the struggles faced due to their ADHD and help these students to succeed in the college environment.
Design considerations

Environment

Lighting

**General:** This space primarily holds two different purposes one being a place to rest and relax and the second being a place to study and get work done. There should be different lighting based upon both of these needs. This should include be a mix of natural and artificial lighting.

**sleep or relaxing:** The lighting for this activity should be minimal. The best lighting for this scenario is warm toned soft lighting. This can be done with lamps, decorative lights, and other forms of gentle ambient lighting.

**studying or working:** Task based lighting is necessary for this activity, but a mix of natural and artificial lighting is ideal. The lighting should be cooler in tone but not too bright to where it inflicts headaches or ends up causing distractions. Natural light would help relieve stress and gain focus in this scenario.

**why?**
- Natural lighting can increase dopamine production.
- Improper lighting can cause headaches, irritation, and lead to trouble focusing.

Acoustics

**General:** Dorms tend to be small multi-level dwellings constructed of cinder block walls. The acoustic solutions need to combat these existing conditions. Each dorm will need its own consideration this depends upon wall construction, the mixture of hard to soft materials within the space, the occupancy of the entire facility, and the overall amount of floors in the building. The

**Specific:** Applying the right solution based on the factors above such as wall or ceiling panels or improving wall and floor construction to options that are more sound proof.
Design considerations

Furniture, Finishes, and Equipment

Furniture

**General:** This will be a small space that needs to accommodate many things such as eating, sleeping, working, hanging out with friends, and more. The furniture will need to be small so everything needed will fit. Having furniture that serves multiple functions will be beneficial. Dorms can have a variety of layouts so depending on the number of occupants the furniture layout and needs may change. With more than one occupant the room is typically divided equally among the number of occupants.

**Specific:** In a dorm with more than one person each person is typically keeping their furniture on their side of the room. These furnishings typically include a bed, desk, and sometimes a dresser or wardrobe which are usually provided by the school. Some other items students usually bring with can include a futon or another type of comfortable seating, storage bins or drawers, coffee tables, lamps and more. There should be a seating option other than a bed or desk chair for hanging out with friends or relaxing. There should be a separation between sleeping and working so having the desk away from the bed is important. There should be proper storage solutions and they should make the items inside visible.

**why?**
- separation of space helps to train the brain what each area is meant for, so it encourages the task at hand upon entering the different areas.
- ADHD makes it hard to stay organized and remember things so having storage and making it visible will help to keep the space clean and make it easier to find things.
- hyperactivity can make people antsy and prone to a lot of movement so flexible seating allows for different places to move around.

Finishes

**General:** This is a space that has to support multiple functions and daily use. The finishes in these spaces will need to be durable in order to last many years of use. The finishes should also be selected based on how easily they can be cleaned with many students moving in and out each year. Cleanability is also important for people with ADHD because tasks that are looked at as non-rewarding or difficult are less likely to rank high on one’s priority list so anything that makes it easier is beneficial. The use of natural materials and calming colors is also important for people with ADHD because it can help with keep them from being overstimulated.

**Specific:** In a dorm room where eating, sleeping, working, cooking, hanging out with friends, and more takes places the finishes will need to be selected to accommodate all these activities and last many years to come. When it comes to flooring a tile, carpet, or concrete flooring would be easy to clean and durable but for a living facility a tile may be most ideal because it is not as hard or cold as concrete and it may be easier to clean than carpet. For counter tops or bathroom vanities a strong stone would be most appropriate. Walls are usually cinder block or drywall in dorms which are both good options.

**why?**
- People with ADHD struggle with starting tasks especially ones that may be deemed boring or difficult by utilizing finished that are easy to clean it will make the task of cleaning less daunting.
Design considerations

Key factors for ADHD design

Create a clutter free environment:
- This can be done through designing custom furnishings to help store and organize possessions.
- Curating thoughtful storage solutions that align seamlessly with the overall design.
- Utilizing open storage which allows for viewing of the items stored away.

Create zones:
- Make “zones” in the space. This is done by separating out the different uses or needs of the space and creating a specific “zone” for each this helps to train the mind to know what activities are to be done in that space. Which over time helps to maintain focus on the task at hand in each space.
- Zones can be easily recognized by using different paint colors, having area rugs, and by making the areas purpose know with furnishings and equipment.
- Utilizing an open floor plan. Although zones help to focus the mind having an open floor plan helps with flow and the visual ability to see other areas of the space. This is helpful so that you are not spending too much time on one task.

Creating a calming environment:
- Finding your sensory satisfaction level. This can be done through sound, touch, or movement.
- Using color theory in each area to align with the purpose of that space.
- Implementing biophilic design. The use of natural materials in the space can help reduce stress and improve mental health.

Creating mobility:
- Utilizing mobile furnishings. Furniture that can be easily moved or manipulated such as a sit to stand desk or a chair that can be easily swapped out. Having the ability for movement in a small space helps with hyperactivity and movement can actually help to raise productivity.
- An open floor plan and the zones once again helps with mobility in the space.
- Exercise is really helpful for people with ADHD so having a space for movement and exercise in the room will help to reduce stress and get out the anxious and hyper energy.
Design considerations

Mood board
Existing Conditions

The Paddocks
Located in Kalamazoo Michigan about 6 minute drive to Western Michigan University.

Advantages:
- Large space.
- Lots of storage.
- Laundry in closet (less effort to do laundry).
- Private kitchen.
- Private bathroom.

Disadvantages:
- Not open storage.
- Stacked units (possibly noisy).
- No space for a dining area.
- No pantry.
View 1 is taken from the threshold of the bedroom closet. This view is showing the bedroom layout. This room comes furnished with a full sized bed, desk, desk chair, and two nightstands.

View 2 is taken from the living room. This view is showing the kitchen area and some of the living space. The living room is furnished with a couch, lounge chair, end table and coffee table. The kitchen is equipped with a sink, oven, and refrigerator, and two barstools.
Existing Conditions

Holmes Hall
Located in Lexington Kentucky on University of Kentucky’s north campus.

Figure 14: Holmes Hall
floor plan

Advantages:
- Large space.
- Individual bedroom and closets.
- In unit bathroom.
- In unit kitchen.
- Dual sinks separate from toilet and shower.

Disadvantages:
- Not enough storage
- No living space.
- No in unit washer/dryer.
View 1 is taken of a bedroom. The room is furnished with a full-size bed and a desk.

View 2 is taken from the living room. This view is showing the entry way, kitchenette, and bathroom vanity. The kitchen area comes equipped with lower cabinets and a sink. There is also a small dining table. The vanity area has two sinks and is located outside the bathroom.
Existing Conditions

Henry Hall
Located in Kalamazoo Michigan on Western Michigan University’s campus.

Figure 17: Henry Hall floor plan

Advantages:
- Large windows.
- High ceilings.

Disadvantages:
- Shared closet.
- Small space.
- No kitchen or living space.
- No in unit washer dryer or bathrooms.
- Lack of space for all furniture.
- Cinder block walls (noisy neighbors).
View 1 is taken from the back corner of the wall the window is on. This view is showing the entry, closet, and desk area. This room comes furnished with two dressers, two desks, two chairs, and two twin beds.

View 2 is taken from the entry of the room. This view is showing the back wall with the two beds and window.
Existing Conditions

Ferguson & Munsell
Located in Bloomington Illinois on Illinois Wesleyan University’s campus.

Figure 20: Ferguson & Munsell floor plan

Advantages:
• Individual closets.
• Walls are drywalled and less sound travels in the space.

Disadvantages:
• Small window.
• Low ceilings.
• Too much furniture in small space.
• Small room.
View 1 is taken from the entry of the room. This view is showing one half of the space. This room comes furnished with two dressers, two wardrobes, two desks, two chairs, and two twin beds.

View 2 is taken from the back window wall. This view is showing the desk area and storage space with the wardrobes and dressers.
Existing Conditions

Presidential Village 1
Located in Tuscaloosa Alabama on University of Alabama’s North campus.

Figure 23: Presidential Village 1 floor plan

Advantages:
- Large space.
- Natural lighting.
- Living space.
- Kitchenette.
- Private bathroom with sink outside.
- Two private bedrooms each with a closet.

Disadvantages:
- No washer/dryer.
- Lack of storage.
View 1 is taken near the entry. This view is showing the living space and dining area. This room comes furnished with a large sectional, end table, tv stand, and dining table.

View 2 is taken in one of the bedrooms. This view is showing the bed, desk, and dresser.
Existing Conditions

Bissell Hall
Located in Hanover New Hampshire on Dartmouth College campus.

Advantages:
- Private room.
- Adequate size room for one person.
- Large window.

Disadvantages:
- No private bathroom.
- No closet.
View 1 is taken near the entry. This view shows the sleeping area, work area with the desk, and some storage with the dresser and shelf.

View 2 is taken from the back of the room. This view shows the entry way wardrobe and desk.
Existing Conditions

Commons West
Located in Chicago Illinois on University of Illinois Chicago campus.

Figure 29: Commons West floor plan

Advantages:
- Individual closets.
- Walls are drywalled and less sound travels in the space.

Disadvantages:
- Small space.
- Room not laid out for equal separation.
Figure 30: Commons West view 1

Figure 31: Commons West view 2

**COMMONS WEST EXISTING VIEW 1**

View 1 is taken near the closets. This view shows the 2 beds and the two desks on the back wall.

**COMMONS WEST EXISTING VIEW 2**

View 2 is taken from the back wall. This view shows the 2 beds, entry door and two closet doors.
Existing Conditions

Watterson Tower
Located in Bloomington Illinois on Illinois state University campus.

Figure 32: Watterson tower floor plan

Advantages:
• Large closet
• Open space.
• Lots of natural light.

Disadvantages:
• Oddly shaped floor plan.
• 28 story building ( might be noisy)
• No bathroom in unit.
• Lack of storage.
• Improper lighting.
View 1 is taken near the window wall behind the sleeping area. In this view you can see the two beds and the desk area. In the very back of this view you can see a small portion of the closet.

View 2 is taken near the entry way door. In this view you can see the two beds and the desk area again.
Existing Conditions

Taylor Place
Located on Arizona State University campus.

Figure 35: Taylor Place
floor plan

Advantages:
• In unit bathroom.
• Separate sink from toilet room.
• Individual closets.
• Decent sized room.

Disadvantages:
• Lack of storage.
View 1 is taken from the window wall. In this view you can see the two beds, closet space, and the bathroom entry.

View 2 is taken near the closet. This view gives a better view of the sleeping area and the two desks.
Design Methodology
Redesigning 9 existing dorm rooms to better suit students with ADHD. The goals in redesigning each dorm is based upon the 4 factors that improve peoples lives with ADHD. By applying these methods to design we can improve these dwellings to better suit students with ADHD and improve their college experience. Some key elements in redesigning these places will include improving floor plans, lighting design, building acoustics, storage solutions, and in some cases designing better furniture solutions.

**Project Outcomes**

**Redesign**

Using the four principles of following a routine, creating visual prompts, de-cluttering before starting task, and finding your sensory satisfaction level to redesign each space will not only improve the design of each dorm space but it will also improve the lives of the students living in them. These tactics will come in when layouting out the overall floor plan, making furniture and material selections and more.

**Short Video**

There will be Short videos. The videos will use a printed floor plan of the dorm and show me moving 3d furniture in the space and showing how I think the rom would be best laid out. I will be able to visually show the changes but also explain the reason that these changes are beneficial in these short videos. Each video will last no longer than 5 minutes and will serve as almost a short tutorial as to how to set up your dorm.

**Evaluation Process**

Surveying individuals with ADHD to see if they can see the benefit to these designs. Establishing what changes are the most helpful and if they would use the tools I am creating to help them design their spaces. Surveying the ability to understand the videos.

**Question 1: Did you find the videos easy to follow?**

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43
Redesign

The Paddocks
Located in Kalamazoo Michigan about 6 minute drive to Western Michigan University.

Figure 38: The Paddocks new floor plan

What changed:
- Improved closest storage.
- Added storage. (Pantry, key hook, TV stand, night stand)
- Improved kitchen cabinetry and utilized viewing window cabinets.
- Improved living space.
- Improved lighting design.
- Improved acoustics. (Acoustic wall panels, sound proof wall construction)
- Added lava lamp for sensory stimulation in bedroom.
- Added hanging chair for more seating options. (Good for over stimulation)
- Moving beds near window. (Improves sleep, and natural light helps depression)
- Added dining space.
- Added dish washer for convenience.
View 1 shows the addition of acoustic panels on the walls, a nightstand with an open shelf on the bottom, a lava lamp on the nightstand for relaxation, a charging station on the nightstand to put electronics on at night, a reading light next to the bed, and a plant for some relaxation.

View 2 shows the addition of a large sectional couch, some plants above the couch, a dining table in the kitchen, improved upper cabinetry, and a large open storage shelf.
Holmes Hall
Located in Lexington Kentucky on University of Kentucky’s north campus.

Figure 41: Holmes Hall new floor plan

Holmes Hall

What changed:
- Improved layout to create more open spaces.
- Moved the sink into the bathroom to create a larger kitchen and add a living space.
- Added storage in the bedrooms with headboard that have shelving.
- Added ball desk chairs for sensory stimulation and focus.
- Added mini fridges in bedrooms.
- Improved kitchenette. (added pantry, open shelving for uppers, viewing window cabinets.
- Added a dishwasher to make the task more manageable.
- Added a seating area.
- Improved lighting design. (reading lights next to bed, lighting over dining area and sink, bright light over desk)
View 1 shows the addition of a large open shelf headboard, a reading light next to the bed, another shelf over the desk, and the ball desk chair.

View 2 shows a completely new kitchen / living space. The kitchen was upgraded with floating upper shelving, a dishwasher, and a small dining table. The rest of the space was opened up to create a small living area with two accent chairs, a round end table with some shelves for storage, and a corner shelf above.
Redesign

Henry Hall
Located in Kalamazoo Michigan on Western Michigan University’s campus.

Figure 44: Henry Hall new floor plan

What changed:
- Separated closets.
- Lofted bed to create more space.
- Added living space with futon and TV.
- Added acoustic tiles on the walls.
- Added storage. (TV stand)
- Added mini fridge.
- Improved lighting design. (Lights above desk, softer ambient lighting in the rest of the space)
In view 1 you can see the two lofted beds creating more space under them. The two desks are placed under the bed along with a light over each desk.

View 2 again shows the two lofted beds but behind them you can see the living space. The living space includes a futon, tv, tv stand with some storage, a lava lamp for sensory stimulation, and some acoustic tiles on the wall to help with noise pollution.
Redesign

Ferguson & Munsell
Located in Bloomington Illinois on Illinois Wesleyan University’s campus.

Figure 47: Ferguson & Munsell new floor plan

Ferguson / Munsell

What changed:
- Added separate closest.
- Divided the room evenly.
- Added bubble panel for over stimulation.
- Added calendars above desks.
- Added mini fridges.
- Added a TV on each side.
- Improved storage. (shelf above bed, and dresser in closet, night stand)
- Improved lighting design. (bed side lamps, task lighting over desk)
In view 1 you can see the addition of the two nightstands and lamps next to each bed, a bubble panel in the middle for sensory stimulation and relaxation, more storage implemented in the shelf above the bed, and a mini fridge.

View 2 shows the other half of the room which includes the desk work areas with calendars above each desk. In this view you can also see the new closets that were put in, the tv’s across from each bed, and an acrylic reminders board on attached to the door.
Redesign

Presidential Village 1
Located in Tuscaloosa Alabama on University of Alabama’s North campus.

Figure 50: Presidential Village 1 new floor plan

Presidential Village

What changed:
• Improved kitchen and added storage.
• Kitchen cabinets have viewing window to help remember where items are.
• Added barstool seating in kitchen.
• Added washer / dryer in the entry way closet.
• Improved sensory experience with bubble panel in living space.
• Improved lighting design. (lamps in bedroom, soft general lighting, vanity lighting for bathroom vanity, task lighting above desks)
• Added book case in bedroom.
• Added storage shelf in bathroom.
In view 1 you can see the new layout of the kitchen including the addition of a peninsula with barstool seating. The kitchen also was constructed with new custom viewing window cabinetry, and a stovetop. The living space now has two relaxing bubble panels next to the tv, a coffee table, and a slanted shelf for storage.

View 2 is in the bedroom showing improved storage with the open shelf head baord that holds a relaxing oil diffuser and a alarm clock. There is also a lamp in the room now for some more dim night time lighting.
Redesign

Bissell Hall
Located in Hanover New Hampshire on Dartmouth College campus.

Figure 53: Bissell Hall new floor plan

Bissell Hall

What changed:
• Created closet.
• Added dresser in closet.
• Added a sink in bedroom.
• Improved storage. (bathroom vanity, coffee table, TV stand, shelf above desk, nightstand)
• Created a “relaxing” space. (futon and TV area)
• Added mini fridge.
• Improved lighting design. (bedside reading light, vanity light above sink, task lighting over desk, relaxing general lighting in the rest of the space)
• Improved acoustics. (lights, sound proof wall construction)
• Moving bed near window. (improves sleep, and natural light helps depression)
View 1 shows the new living space in the room equipped with a futon, coffee table, TV, and a TV console. This view also shows the new nightstand with an open shelf below and a plant on top.

In view 2, you can see another view of the changes shown in view 1 along with the sink vanity area and the desk area. The desk area includes a custom sit/stand desk that has a storage shelf above along with a calendar that can link up with your computer. Next to the entry, you’ll find the new sink vanity for brushing your teeth, washing your face, or any other things you may need to do now conveniently in your room so you don’t need to walk to communal areas.
Redesign

Commons West
Located in Chicago Illinois on University of Illinois Chicago campus.

Figure 56: Commons West
new floor plan

Commons West
What changed:
• Added storage in closet with shoe rack.
• Improved general storage. (bookcase, nightstand)
• Added seating for when feeling antsy. (chair)
• Improved lighting design. (bedside lamp, task based bright lighting over desk, warm general lighting in the rest of the space)
• Added acoustic wall tiles.
• Moved desk space from windows to eliminate distractions.
• Moving beds near window. (improves sleep, and natural light helps depression)
In view 1 you see the newly lofted bed opening up the floor plan for the changes implemented in the space. At the end of the bed on the floor you’ll find a small work out station with a shelf to store gym equipment. Under the bed you can see the new nightstand add extra storage along with a reading light and alarm clock.

View 2 shows the acoustic panels near the door to help with sound pollution. This view also shows the work area. The work area includes two custom sit / stand desks with storage shelving above and a calendar that can link up to a computer. There is also a large bookcase between the desks for storage.
Redesign

Watterson Tower
Located in Bloomington Illinois on Illinois state University campus.

Figure 59: Watterson tower new floor plan

What changed:
- Improved closest storage.
- Added storage / organization.
  (bookcase, console table, key hook, night stand)
- Utilizing open storage options.
- Added space for relaxing with TV and futon.
- Improved lighting design. (bedside lamps, acoustic over head lighting, and task based lighting above desks)
- Improved acoustics. (lights, sound proof wall construction)
- Separating work space and relaxing space.
- Moving beds near window.
  (improves sleep, and natural light helps depression)
Figure 60: Watterson tower new view 1

WATTERSON TOWER REMODEL VIEW 1  
SCALE: NO SCALE
View 1 shows the new living space which includes a futon, console table, tv, and coffee station. This view also shows the acoustic panel lighting fixtures.

Figure 61: Watterson tower new view 2

WATTERSON TOWER REMODEL VIEW 2  
SCALE: NO SCALE
In view 2 you can see the working zone of the space which includes the two custom sit/stand desks and large bookcase for storage. This view also shows the entry way with an entry table and key hooks.
Redesign

Taylor Place
Located on Arizona State University campus.

What changed:
• Improved closest storage. (shoe racks in closets)
• Ball chairs at desks.
• Improved storage. (basket, shelves, bathroom sink, over toilet shelf, night stand, console table)
• Improved bathroom. (larger tub / shower combo)
• Added TV.
• Added fish tank for sensory overload.
• Added key hooks.
• Added mini fridge.

Figure 62: Taylor Place new floor plan
Figure 63: Taylor Place new view 1

View 1 shows the sleeping area with the nightstand that has a shelf for storage and a lamp on top. This view also shows the entry way with key hooks.

Figure 64: Taylor Place new view 2

View 2 you can see working area that includes two desks with the ball chairs. This view also shows the work out station with a small shelf to store workout equipment. In this view you can see added storage with the two shelves above the desks, a console table below the tv, and a small basket on the floor.
Design details

Viewing window cabinet
This cabinet provides a sneak peak as to what is in each drawer. This is done with the false front glass viewing window where small snacks, a photo or other objects can be placed. This cabinet was designed with the idea in mind that many people with ADHD tend to have an "out of sight out of mind" mentality and can forget where things are when they are stored away.

Sound proof wall construction
Most dorms are high traffic multi-level dwellings which can lead to a lot of noise. By utilizing a sound proof wall construction it will eliminate noise pollution from the surrounding rooms and create a more peaceful and productive space for students with ADHD.

Custom sit / stand desk
The sit / stand desk with a smart board back that can link up to your phone or laptop calander. People with ADHD tend to thrive and find comfort when they have a structured schedule. The other portion of the back is a peg board to store desk supplies in a way that they can still be seen. On the very top of this desk you can find a open shelf for storage which can be filled with baskets or other possessions.
Through researching and better understanding ADHD and the obstacles that come with it I formed four tactics for “Living with ADHD” these tactics serve as a guide to better design spaces for individuals with ADHD and ultimately improving one’s life with ADHD. College is a challenging place for many but students with ADHD can find it even more difficult the goal of creating a space that suits the needs of students with ADHD was to help them thrive, be able to enjoy college, and alleviate some of the issues they face outside of the classroom. This project could help serve as a guide to better college living for students with ADHD.
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Fig. 7 IRIS Sensory Room. Sensory room. 2022. Photograph. Experia USA multisensory for everyone. https://www.experia-usa.com/iris-sensory-room/

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<td>Remembering to finish tasks started</td>
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<tr>
<td>Cooking meals</td>
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<td>Doing laundry / putting away clothes</td>
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<td>Starting homework</td>
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Figure 68: Task Chart
Listening / focusing on things that are not of interest
Remembering to finish tasks started
Remembering where things are in the house
Design considerations

Environment

ADHD struggle

Loud noise causing distraction / irritation.

Irritation, trouble focusing, depression, and headaches due to improper lighting.

Sensory overload and general feelings of discomfort.

Design solution

Acoustic paneling to provide peace and quite especially in dorms that use cinderblock walls.

Utilizing natural and artificial lighting to create a comfortable environment. Natural lighting aids in boost dopamine and increasing productivity.

Installing heating and cooling thermostat control in each individual unit.

Furniture, Finishes, Fixtures, and Equipment

Struggles locating things and keeping spaces clean.
Out of sight out of mind mentality.

Hard time sitting still. Antsy and anxious feelings.

Depression and lack of motivation to initiate tasks.

Design solution

Creating storage solutions in generally small rooms.
Making the storage open and items visible.

Flexible seating options and multiple options for work surfaces.

Finishes that are easily cleaned and can put up with daily wear and tear.